Agricultural Policy Monitoring and Evaluation 2016

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BETTER POLICIES FOR BETTER LIVES

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Foreword

This report Agricultural Policy Monitoring and Evaluation 2016 *is the 29th in the series of OECD reports that monitor and evaluate agricultural policies across countries, and the fourth report to include both OECD countries and a set of emerging economies. The present report includes countries from six continents, including the 34 OECD countries and the seven non-OECD EU member states, as well as nine emerging economies: Brazil, China, Colombia, Indonesia, Kazakhstan, Russia, South Africa, Ukraine and Viet Nam.*

The OECD uses a comprehensive system for measuring and classifying support to agriculture – the Producer and Consumer Support Estimates (PSEs and CSEs) and related indicators. They provide insight into the increasingly complex nature of agricultural policy and serve as a basis for OECD's agricultural policy monitoring and evaluation.

*The "Executive Summary" synthesises the key findings of the report. Chapter 1 provides an overview of developments in agricultural policies and analyses the development of the level and structure of support to agriculture across countries included in the report. Chapter 2 consists of short Country Snapshots which briefly summarise the developments in agricultural policies and support to farms in each individual country covered by this report (the European Union which has a Common Agricultural Policy is presented as a single Country Snapshot). Comprehensive Country Chapters and the Statistical Annex containing detailed background tables with indicators of agricultural support are available in electronic form (*http://dx.doi.org/10.1787/agr_pol-2016-en*).*

The Executive Summary and Chapter 1 are published under the responsibility of OECD Committee for Agriculture. The remainder of the report is published under the responsibility of the Secretary-General of the OECD.

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Reader's guide
Definition of OECD indicators of agricultural support

Nominal indicators used in this report

Producer Support Estimate (PSE): 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 support agriculture, regardless of their nature, objectives or impacts on farm production or income. It includes market price support, budgetary payments and budget revenue foregone, i.e. gross transfers from consumers and taxpayers to agricultural producers arising from policy measures based on: current output, input use, area planted/animal numbers/receipts/incomes (current, non-current), and non-commodity criteria.

Market Price Support (MPS): The annual monetary value of gross transfers from consumers and taxpayers to agricultural producers arising from policy measures that create a gap between domestic market prices and border prices of a specific agricultural commodity, measured at the farm gate level. MPS is also available by commodity.

Producer Single Commodity Transfers (producer SCT): The annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, measured at the farm gate level, arising from policies 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 broader policies where transfers are specified on a per-commodity basis. Producer SCT is also available by commodity.

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 policies whose payments are made on the basis that one or more of a designated list of commodities is produced, i.e. a producer may produce from a set of allowable commodities and receive a transfer that does not vary with respect to this decision.

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 policies that place no restrictions on the commodity produced but require the recipient to produce some commodity of their choice.

Other Transfers to Producers (OTP): The annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, measured at the farm gate level, arising from policies that do not require any commodity production at all.

Consumer Single Commodity Transfers (consumer SCT): The annual monetary value of gross transfers from (to) consumers of agricultural commodities, measured at the farm

gate level, arising from policies linked to the production of a single commodity. Consumer SCT is also available by commodity.

Consumer Support Estimate (CSE): The annual monetary value of gross transfers from (to) consumers of agricultural commodities, measured at the farm gate level, arising from policy measures that support agriculture, regardless of their nature, objectives or impacts on consumption of farm products. If negative, the CSE measures the burden (implicit tax) on consumers through market price support (higher prices), that more than offsets consumer subsidies that lower prices to consumers.

General Services Support Estimate (GSSE): The annual monetary value of gross transfers arising from policy measures that create enabling conditions for the primary agricultural sector through development of private or public services, institutions and infrastructure, regardless of their objectives and impacts on farm production and income, or consumption of farm products. The GSSE includes policies where primary agriculture is the main beneficiary, but does not include any payments to individual producers. GSSE transfers do not directly alter producer receipts or costs or consumption expenditures. GSSE categories are defined in Box 2.

Total Support Estimate (TSE): The annual monetary value of all gross transfers from taxpayers and consumers arising from policy measures that support agriculture, net of the associated budgetary receipts, regardless of their objectives and impacts on farm production and income, or consumption of farm products.

Ratio indicators and percentage indicators

Percentage PSE (%PSE): PSE transfers as a share of gross farm receipts (including support in the denominator).

Percentage SCT (%SCT): Is the commodity SCT expressed as a share of gross farm receipts for the specific commodity (including support in the denominator).

Share of SCT in total PSE (%): Share of Single Commodity Transfers in the total PSE. This indicator is also calculated by commodity.

Producer Nominal Protection Coefficient (producer NPC): The ratio between the average price received by producers (at farm gate), including payments per tonne of current output, and the border price (measured at farm gate). The Producer NPC is also available by commodity.

Producer Nominal Assistance Coefficient (producer NAC): The ratio between the value of gross farm receipts including support and gross farm receipts (at farm gate) valued at border prices (measured at farm gate).

Percentage CSE (%CSE): CSE transfers as a share of consumption expenditure on agricultural commodities (at farm gate prices), net of taxpayer transfers to consumers. The %CSE measures the implicit tax (or subsidy, if CSE is positive) placed on consumers by agricultural price policies.

Consumer Nominal Protection Coefficient (consumer NPC): The ratio between the average price paid by consumers (at farm gate) and the border price (measured at farm gate). The Consumer NPC is also available by commodity.

Consumer Nominal Assistance Coefficient (consumer NAC): The ratio between the value of consumption expenditure on agricultural commodities (at farm gate) and that valued at border prices.

Percentage TSE (%TSE): TSE transfers as a percentage of GDP.

Percentage GSSE (%GSSE): Share of expenditures on general services in the Total Support Estimate (TSE).

Box 1. **Definitions of categories in the PSE classification**

Definitions of categories

Category A1, Market price support (MPS): Transfers from consumers and taxpayers to agricultural producers from policy measures that create a gap between domestic market prices and border prices of a specific agricultural commodity, measured at the farm gate level.

Category A2, Payments based on output: Transfers from taxpayers to agricultural producers from policy measures based on current output of a specific agricultural commodity.

Category B, Payments based on input use: Transfers from taxpayers to agricultural producers arising from policy measures based on on-farm use of inputs:

- ***Variable input use*** that reduces the on-farm cost of a specific variable input or a mix of variable inputs.
- ***Fixed capital formation*** that reduces the on-farm investment cost of farm buildings, equipment, plantations, irrigation, drainage, and soil improvements.
- ***On-farm services*** that reduce the cost of technical, accounting, commercial, sanitary and phyto-sanitary assistance and training provided to individual farmers.

Category C, Payments based on current A/An/R/I, production required: Transfers from taxpayers to agricultural producers arising from policy measures based on current area, animal numbers, revenue, or income, and requiring production.

Category D, Payments based on non-current A/An/R/I, production required: Transfers from taxpayers to agricultural producers arising from policy measures based on non-current (i.e. historical or fixed) area, animal numbers, revenue, or income, with current production of any commodity required.

Category E, Payments based on non-current A/An/R/I, production not required: Transfers from taxpayers to agricultural producers arising from policy measures based on non-current (i.e. historical or fixed) area, animal numbers, revenue, or income, with current production of any commodity not required but optional.

Category F, Payments based on non-commodity criteria: Transfers from taxpayers to agricultural producers arising from policy measures based on:

- ***Long-term resource retirement:*** Transfers for the long-term retirement of factors of production from commodity production. The payments in this subcategory are distinguished from those requiring short-term resource retirement, which are based on commodity production criteria.
- ***A specific non-commodity output:*** Transfers for the use of farm resources to produce specific non-commodity outputs of goods and services, which are not required by regulations.
- ***Other non-commodity criteria:*** Transfers provided equally to all farmers, such as a flat rate or lump sum payment.

Category G, Miscellaneous payments: Transfers from taxpayers to farmers for which there is a lack of information to allocate them among the appropriate categories.

Note: A (area), An (animal numbers), R (receipts) or I (income).

Definitions of labels

With or without current commodity production limits and/or limit to payments: Defines whether or not there is a specific limitation on current commodity production (output) associated with a policy providing transfers to agriculture and whether or not there are limits to payments in the form of limits to area or animal numbers eligible for those payments. Applied in categories A–F.

Box 1. **Definitions of categories in the PSE classification** *(cont.)*

With variable or fixed payment rates: Any payments is defined as subject to a variable rate where the formula determining the level of payment is triggered by a change in price, yield, net revenue or income or a change in production cost. Applied in categories A–E.

With or without input constraints: defines whether or not there are specific requirements concerning farming practices related to the programme in terms of the reduction, replacement, or withdrawal in the use of inputs or a restriction of farming practices allowed. Applied in categories A–F. The payments with input constrains are further broken down to:

- payments conditional on compliance with basic requirements that are mandatory (*with mandatory*);
- payments requiring specific practices going beyond basic requirements and voluntary (*with voluntary*):
  - specific practices related to environmental issues;
  - specific practices related to animal welfare;
  - other specific practices.

With or without commodity exceptions: defines whether or not there are prohibitions upon the production of certain commodities as a condition of eligibility for payments based on non-current A/An/R/I of commodity(ies). Applied in Category E.

Based on area, animal numbers, receipts or income: defines the specific attribute (i.e. area, animal numbers, receipts or income) on which the payment is based. Applied in categories C–E.

Based on a single commodity, a group of commodities or all commodities: defines whether the payment is granted for production of a single commodity, a group of commodities or all commodities. Applied in categories A–D.

Decomposition indicators

Decomposition of PSE

Per cent change in PSE: Per cent change in the nominal value of the PSE expressed in national currency. The per cent change is calculated using the two most recent years in the series.

Contribution of MPS to per cent change in PSE: Per cent change in nominal PSE if all variables other than MPS are held constant.

Contribution of price gap to per cent change in the PSE: Per cent change in nominal PSE if all variables other than gap between domestic market prices and border prices are held constant.

Contribution of quantity produced to per cent change in the PSE: Per cent change in nominal PSE if all variables other than quantity produced are held constant.

Contribution of budgetary payments (BP) to per cent change in PSE: Per cent change in nominal PSE if all variables other than BP are held constant.

Contribution of BP elements to per cent change in PSE: Per cent change in nominal PSE if all variables other than a given BP element are held constant. BP elements include Payments based on output, Payments based on input use, Payments based on current A/An/R/I, production required, Payments based on non-current A/An/R/I, production required, Payments based on non-current A/An/R/I, production not required, Payments based on non-commodity criteria and Miscellaneous payments.

Decomposition of price gap elements

Per cent change in Producer Price: Per cent change in Producer Price (at farm gate) expressed in national currency. The per cent change is calculated using the two most recent years in the series.

Per cent change in the Border Price: Per cent change in Border Price (at farm gate) expressed in national currency. The per cent change is calculated using the two most recent years in the series.

Contribution of Exchange Rate to per cent change in Border Price: Per cent change in the Border Price (at farm gate) expressed in national currency if all variables other than Exchange Rate between national currency and USD are held constant.

Contribution of Border Price expressed in USD to per cent change in Border Price: Per cent change in the Border Price (at farm gate) expressed in national currency if all variables other than Border Price (at farm gate) expressed in USD are held constant.

Definition of GSSE categories

The general GSSE definition is complemented in Annex 1.A1 by more specific implementation guidelines, provided under the different categories in the GSSE classification.

More detailed information on the indicators, their use and limitations is available in the *OECD's Producer Support Estimate and Related Indicators of Agricultural Support: Concepts, Calculation, Interpretation and Use* (the PSE Manual) available on the OECD public website: *www.oecd.org/tad/agricultural-policies/psemanual.htm*.

Box 2. **Definitions of categories in the GSSE classification**

Agricultural knowledge and innovation system

- ***Agricultural knowledge generation:*** Budgetary expenditure financing research and development (R&D) activities related to agriculture, and associated data dissemination, irrespective of the institution (private or public, ministry, university, research centre or producer groups) where they take place, the nature of research (scientific, institutional, etc.), or its purpose.
- ***Agricultural knowledge transfer:*** Budgetary expenditure financing agricultural vocational schools and agricultural programmes in high-level education, training and advice to farmers that is generic (e.g. accounting rules, pesticide application), not specific to individual situations, and data collection and information dissemination networks related to agricultural production and marketing.

Inspection and control

- ***Agricultural product safety and inspection:*** Budgetary expenditure financing activities related to agricultural product safety and inspection. This includes only expenditures on inspection of domestically produced commodities at first level of processing and border inspection for exported commodities.
- ***Pest and disease inspection and control:*** Budgetary expenditure financing pest and disease control of agricultural inputs and outputs (control at primary agriculture level) and public funding of veterinary services (for the farming sector) and phytosanitary services.

Box 2. **Definitions of categories in the GSSE classification** *(cont.)*

- ***Input control:*** Budgetary expenditure financing the institutions providing control activities and certification of industrial inputs used in agriculture (e.g. machinery, industrial fertilisers, pesticides, etc.) and biological inputs (e.g. seed certification and control).

Development and maintenance of infrastructure

- ***Hydrological infrastructure:*** Budgetary expenditure financing public investments into hydrological infrastructure (irrigation and drainage networks).
- ***Storage, marketing and other physical infrastructure:*** Budgetary expenditure financing investments to off-farm storage and other market infrastructure facilities related to handling and marketing primary agricultural products (silos, harbour facilities – docks, elevators; wholesale markets, futures markets), as well as other physical infrastructure related to agriculture, when agriculture is the main beneficiary.
- ***Institutional infrastructure:*** Budgetary expenditure financing investments to build and maintain institutional infrastructure related to the farming sector (e.g. land cadastres; machinery user groups, seed and species registries; development of rural finance networks; support to farm organisations, etc.).
- ***Farm restructuring:*** Budgetary payments related to reform of farm structures financing entry, exit or diversification (outside agriculture) strategies.

Marketing and promotion

- ***Collective schemes for processing and marketing:*** Budgetary expenditure financing investment in collective, mainly primary, processing, marketing schemes and marketing facilities, designed to improve marketing environment for agriculture.
- ***Promotion of agricultural products:*** Budgetary expenditure financing assistance to collective promotion of agro-food products (e.g. promotion campaigns, participation on international fairs).

Cost of public stockholding: Budgetary expenditure covering the costs of storage, depreciation and disposal of public storage of agricultural products.

Miscellaneous: Budgetary expenditure financing other general services that cannot be disaggregated and allocated to the above categories, often due to a lack of information.

OECD indicators of support

ACT	All Commodity Transfers
CSE	Consumer Support Estimate
GCT	Group Commodity Transfers
GSSE	General Services Support Estimate
MPS	Market Price Support
NAC	Nominal Assistance Coefficient
NPC	Nominal Protection Coefficient
OTP	Other Transfers to Producers
PEM	Policy Evaluation Model
PSE	Producer Support Estimate
SCT	Single Commodity Transfers
TSE	Total Support Estimate

Sources and definitions of contextual indicators

Table 2.X.1. Contextual indicators

Gross Domestic Product – GDP (USD billion in PPP): OECD National Accounts, Gross domestic product, USD, current PPPs, current prices. Latest year benchmarked from Economic Outlook projections; for EU member countries, data come from EUROSTAT; UN World Development Indicators (WDI) data for emerging economies.

Population (million): OECD.stat, Demography and population, Population statistics, Population and vital statistics, series on Total population mid-year estimates. For EU member countries, data come from EUROSTAT, population/demography/demography national data/ population. U.N. *World population prospects, 2015 Revision* for emerging economies.

Land area (thousands km^2): FAO, Land use database, Land area (000 ha) recalculated to thousands km^2. Land area excludes water areas.

Agricultural area (AA) (thousand ha): FAO, Land use database, Agricultural area.

Population density (inhabitants/km^2): U.N. *World population prospects, 2015 Revision*, Population density by major area, region and country, 1950-2015 (persons per square km). For EU members calculated from EUROSTAT population and area.

GDP per capita (USD in PPP): OECD.stat, National accounts, Main aggregates, Gross domestic product (output approach), per head, USD, current prices, current PPPs. EU countries, EUROSTAT, GDP and main components – Current prices.

Trade as % of GDP: Trade data from UN COMTRADE Database. Customs data; Average trade: (exports+imports)/2. EU does not account for intra-EU trade.

Agriculture share in GDP (%): OECD.stat, Country statistical profiles; Value added in agriculture, hunting, forestry and fishing as % total value added. EU countries: EUROSTAT, Gross value added – Agriculture and fishing – % of all branches (NACE). UN World Development Indicators for emerging economies.

Agriculture share in employment (%): OECD.stat, Employment by activities and status (ALFS), share of Agriculture, hunting, forestry (ISIC rev. 3, A), Employment ('000) (which does not include fishing) in Employment in all activities (ISIC rev. 3, A-X) ('000). EUROSTAT for the EU corresponds to the share of employed persons aged 15-64, in agriculture, hunting and forestry in total NACE activities. UN World Development Indicators, employment in agriculture % of total employment.

Agro-food exports in total exports (%): UN COMTRADE Database. Agro-food definition does not include fish and fish products. Agro-food codes in H0: 01, 02, 04 to 24, 3301, 3501 to 3505, 4101 to 4103, 4301, 5001 to 5003, 5101 to 5103, 5201 to 5203, 5301, 5302, 290543/44, 380910, 382360.

Agro-food imports in total imports (%): UN COMTRADE Database. Agro-food definition does not include fish and fish products.

Crop in total agricultural production (%): Share of value of total crop production (including horticulture) in total agricultural production; National data.

Livestock in total agricultural production (%): Share of value of total livestock production in total agricultural production; National data.

Share of arable land in AA (%): FAO, Land use database, arable land in percentage of agricultural area.

Note: For all the OECD indicators listed above, data source is: OECD(2016), "Data Warehouse", *OECD.Stat* (database). DOI: *http://dx.doi.org/10.1787/data-00590-en*.

Table 2.X.2. Productivity and environmental indicators

TFP annual growth (%): USDA Economic Research Service, *International Agricultural Productivity Database*, October 2015. It presents agricultural Total Factor Productivity indexes, using primarily FAO data supplemented by national data. Agricultural TFP indexes are estimates by country and for groups of countries aggregated by geographic region and income class. The European Union single area was recalculated from individual countries data and weights.

Nitrogen balance (Kg/ha): Balance (surplus or deficit) expressed as kg nitrogen per hectare of total agricultural land. OECD aggregate for nitrogen balance is calculated as the ratio between the total surplus and the total agricultural land area in the OECD area. European Union as a single area was calculated as the Gross Nitrogen Balance in the EU area over the Utilised agricultural area of the EU. OECD (2016), "Environmental Performance of Agriculture" (Edition 2013), *OECD Agriculture Statistics* (database). DOI: *http://dx.doi.org/10.1787/data-00660-en*.

Phosphorous balance (Kg/ha): Balance (surplus or deficit) expressed as kg phosphorus per hectare of total agricultural land. OECD aggregate for phosphorus balance is calculated as the ratio between the total surplus and the total agricultural land area in the OECD area. European Union as a single area was calculated as the Gross Phosphorous Balance in the EU area over the Utilised agricultural area of the EU. OECD (2016), "Environmental Performance of Agriculture" (Edition 2013), *OECD Agriculture Statistics* (database). DOI: *http://dx.doi.org/10.1787/data-00660-en*.

Agriculture share of total energy use (%): IEA (2016), "World Energy Balances", IEA *World Energy Statistics and Balances* (database). DOI: *http://dx.doi.org/10.1787/data-00512-en*.

Agriculture share of GHG emissions (%): OECD (2016), "Greenhouse Gas Emissions by Source, Excluding Land Use, Land-Use Change and Forestry" (LULUCF). European Union as a single area was calculated from the European Environmental Agency data for Greenhouse gas emissions by the sector in the EU area over the total GHG emissions in EU area. *Environment Statistics* (database). *www.oecd-ilibrary.org/environment/data/oecd-environment-statistics_env-data-en*. UNFCCC (2016), website of the *UNFCCC Greenhouse Gas Inventory Database*, *http://ghg.unfccc.int*.

Share of irrigated area in Agricultural Area (AA) (%): Share of irrigated area in total agricultural area. European Union was treated as a single area; estimates for EU calculated from FAO data, "Agricultural Area Actually Irrigated in the EU Over Agricultural Area of the EU". OECD (2016), "Environmental Performance of Agriculture" (Edition 2013), *OECD Agriculture Statistics* (database). DOI: *http://dx.doi.org/10.1787/data-00660-en*.

Share of agriculture in water abstractions (%): Share of agriculture in total freshwater abstractions. European Union as a single area was calculated as the total abstractions for agriculture in the EU area over the total freshwater abstractions in the EU area. OECD (2016), "Environmental Performance of Agriculture" (Edition 2013), *OECD Agriculture Statistics* (database). DOI: *http://dx.doi.org/10.1787/data-00660-en*.

Water stress indicator: The indicator refers to the intensity of use of freshwater resources. It is expressed as gross abstractions of freshwater in percentage of total available renewable freshwater resources. European Union was treated as a single area.

OECD (2015), "Water: Freshwater Abstractions", *OECD Environment Statistics* (database). DOI: *http://dx.doi.org/10.1787/data-00602-en*.

Figure 2.X.1. Main macro-economic indicators

Real GDP growth (%): OECD.stat, Country statistical profiles, real GDP growth. OECD (2016), "Data Warehouse", *OECD.Stat* (database). DOI: *http://dx.doi.org/10.1787/data-00590-en*; EU countries: Eurostat, GDP volumes, percentage change over previous period; Emerging economies: WDI. GDP growth %.

Inflation rate (%): *OECD Analytical DataBase* (ADB), Annual average rate of change in Harmonised Indices of Consumer Prices (HICPs), EUROSTAT for the European Union, WDI for emerging economies.

Unemployment rate (%): *OECD Analytical DataBase* (ADB), labour force statistics; EUROSTAT for the European Union.

Figure 2.X.2. Agro-food trade

Agro-food exports (USD billion): *UN COMTRADE Database*. Agro-food definition does not include fish and fish products.

Agro-food imports (USD billion): *UN COMTRADE Database*. Agro-food definition does not include fish and fish products.

Figure 2.X.3. Composition of agricultural output growth

TFP annual growth (%): USDA Economic Research Service, *International Agricultural Productivity Database*, October 2015. It presents agricultural Total Factor Productivity indexes, using primarily FAO data supplemented by national data. Input growth is the weighted-average growth in quality-adjusted land, labour, machinery power, livestock capital, synthetic NPK fertilisers, and animal feed, where weights are input (factor) cost shares. Special breakdown created to dissociate primary factors (land, labour, machinery and livestock) from intermediate input growth. Output growth corresponds to Gross agricultural output for each country.

Agricultural TFP indexes are estimates by country and for groups of countries aggregated by geographic region and income class. The European Union single area was recalculated from individual countries data and weights.

Figure 2.X.4. Composition of agro-food trade

UN COMTRADE Database, Agro-food definition in HS classification (see above) combined with the Classification by Broad Economic Categories (BEC) to generate breakdowns into type of commodities (Primary or Industrial commodities) and type of destination (Consumption or Industry).

Figure 2.X.5. Environmental indicators

Comparative graphic representation of environmental variables; definitions and sources are provided the text related to the Table 2.X.2.

Currencies

AUD	Australian dollar
BRL	Brazilian real
CAD	Canadian dollar
CLP	Chilean peso
COP	Colombian peso
CHF	Swiss frank
CNY	Chinese yuan renminbi
EUR	Euro
IDR	Indonesian roupiah
ILS	Israeli shekel
ISK	Icelandic krona
JPY	Japanese yen
KRW	Korean wong
KZT	Kazakh tenge
MXN	Mexican peso
NOK	Norwegian krone
NZD	New Zealand dollar
RUR	Russian rouble
TRY	New Turkish lira
UAH	Ukrainian hryvnia
USD	United States dollar
VND	Vietnamese dong
ZAR	South African rand

List of acronyms and abbreviations

ACC	Agricultural Credit Co-operatives (Turkey)
ACEP	Agricultural Conservation Easement Program (United States)
ADR	Rural Development Agency (Colombia)
AGF	Direct Government Purchases (Brazil)
AGOA	African Growth and Opportunity Act (South Africa, United States)
AMS	Aggregate Measurement of Support
ANCs	Areas of Natural Constraints (European Union)
ANT	National Land Agency (Colombia)
APEC	Asia-Pacific Economic Co-operation
APP	Advance Payments Program (Canada)
ARC	Agriculture Research Council (South Africa)
ARC	Agriculture Risk Coverage (United States)
ASEAN	Association of South East Asian Nations
BPS	Basic Payment Scheme (European Union)
BRM	Business Risk Management (Canada)
BULOG	Indonesian National Logistic Agency
CAP	Common Agricultural Policy (of the European Union)
CARICOM	Caribbean Community
CASP	Common Agricultural Support Programme (South Africa)
CFIA	The Canadian Food Inspection Agency
CIS	Commonwealth of Independent States
CNDP	Complementary National Direct Payments
CNR	National Irrigation Commission (Chile)
COMESA	Common Market for Eastern and Southern Africa
CONAB	National Food Supply Agency (Brazil)
COOL	Country of Origin Labelling
COP 21	The 21st annual Conference of Parties
CPI	Consumer Price Index
CRDP	Comprehensive Rural Development Programme (South Africa)

List of acronyms and abbreviations *(cont.)*

DAFF	Department of Agriculture, Forestry and Fisheries (South Africa)
DCFTA	Deep and Comprehensive Free Trade Area (Ukraine, EU)
DIRA	Dairy Industry Restructuring Act of 2001 (New Zealand)
DP	Direct Payments
DRDLR	Department of Rural Development and Land Reform (South Africa)
EAC	East Africa Community
EAEU	Eurasian Economic Union (Kazakhstan, Russia)
EAFRD	European Agricultural Fund for Rural Development
EAGF	European Agricultural Guarantee Fund
EEA	European Economic Area
EFAs	Ecological Focus Areas (European Union)
EFP	Environmental Farm Plans (Canada)
EFTA	European Free Trade Association
EPA	Economic Partnership Agreement
EQIP	Environmental Quality Incentives Program (United States)
ETS	Emissions trading scheme (New Zealand)
EU	European Union
FAO	Food and Agriculture Organisation of the United Nations
FARC	Revolutionary Armed Forces of Colombia
FCC	State agency Food Contract Corporation (Kazakhstan)
FDA	Food and Drugs Administration (United States)
FDI	Foreign Direct Investment
FEPs	Commodity Price Stabilisation Funds (Colombia)
FFSA	The Fund of Financial Support of Agriculture (Kazakhstan)
FINAGRO	Financing Fund for the Agricultural Sector (Colombia)
FMD	Foot and Mouth Disease
FPT	Joint Federal, Provincial and Territorial agreements (Canada)
FTA	Free Trade Agreement
FY	Financial (fiscal) year
GAO	Gross Agricultural Output
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GF2	Growing Forward 2 (Canada – new multilateral agricultural policy framework)
GHG	Greenhouse Gases
GMO	Genetically modified organism
GSP	Generalised System of Preferences
IAF	Irrigation Acceleration Fund (New Zealand)
ICMS	Circulation tax (Brazil)
IFSS	Integrated Food Security Strategy (South Africa)
IHS	Import Health Standards (New Zealand)
IMF	International Monetary Fund
INDAP	National Institute for Agricultural Development (Chile)
IPARD	Instrument for Pre-Accession Assistance for Rural Development (Turkey)
LDC	Least Developed Countries
LEADER	Links Between Actions for the Development of the Rural Economy (EU)
LFA	Less Favoured Areas
LRAD	Land Redistribution and Agricultural Development (South Africa)
MAFISA	Micro-Agricultural Financial Institutions of South Africa
MADR	Ministry of Agriculture (Colombia)
MAPA	Ministry of Agriculture, Livestock and Food Supply (Brazil)
MDA	Ministry of Agrarian Development (Brazil)
MERCOSUR	Southern Common Market
MEP	Minimum Export Price (Viet Nam)
MFN	Most Favoured Nation
MMA	Minimum market access
MOU	Memorandum of Understanding

List of acronyms and abbreviations *(cont.)*

MPP	Margin Protection Programme (for dairy producers) (United States)
MRD	Mekong River Delta (Viet Nam)
MY	Marketing year
NAFTA	North American Free Trade Agreement
NAMC	National Agricultural Marketing Council (South Africa)
NDRC	National Development and Reform Commission (China)
NFRS	National Farmer Registration System (Turkey)
NLP	National Land Care programme (South Africa)
ODEPA	Office of Studies and Agrarian Policies of the Ministry of Agriculture (Chile)
OECD	Organisation for Economic Co-operation and Development
OPEC	Organisation of Petroleum Export Countries
PAA	Government purchases from small-scale agriculture (Brazil)
PGPAF	Minimum price programme for family farms (Brazil)
PGP	Primary Growth Partnership (New Zealand)
PLC	Price Loss Coverage (United States)
PPP	Purchasing Power Parity
PRAN	National Agriculture Revitalisation Programme (Colombia)
PROAGRO	General Agriculture Insurance Programme (Brazil)
PROCAMPO	Programme providing payments based on historical areas (Mexico)
Productive PROAGRO	Programme providing payments based on historical areas, replacing PROCAMPO (Mexico)
PROGAN	Programme providing payments based on livestock numbers (Mexico)
QPC	Queensland Productivity Commission (Australia)
RASKIN	Targeted rice for poor programme (Indonesia)
RCEP	Regional Comprehensive Economic Partnership
R&D	Research and Development
RDCs	Rural Research and Development Corporations (Australia)
RDP	Rural Development Plan (Programme)
REID	Rural Enterprise and Industrial Development programme (South Africa)
REP	Regional Environmental Programmes (Norway)
RID	Rural Infrastructure Development programme (South Africa)
RMA	Resource Management Act 1991 (New Zealand)
SACU	South African Customs Union
SADC	Southern African Development Community
SAFP	Andean Price Band System (Colombia)
SAPARD	Special Accession Programme for Agriculture and Rural Development (EU)
SAPS	Single Area Payment Scheme
SDG	The new United Nations' Sustainable Development Goals
SFF	Sustainable Farming Fund (New Zealand)
SGA	State Grain Administration (China)
SMP	Skimmed milk powder
SINOGRAIN	China Grain Reserves Corporation
SNAP	Supplemental Nutrition Assistance Program (United States)
SNCR	National System of Rural Credit (Brazil)
SPS	Single Payment Scheme (EU)
SPS	Sanitary and Phytosanitary
SSG	Special Safeguard
STE	State Trading Enterprise
TBT	Technical Barriers to Trade
TCZB	Ziraat Bank (Turkey)
TFP	Total Factor Productivity
TFTA	Tripartite Free Trade Africa agreement
TNA	Transitional National Aid (European Union)
TPP	Trans-Pacific Partnership Agreement
TRQ	Tariff Rate Quota
TTIP	Transatlantic Trade and Investment Partnership (EU, US)

List of acronyms and abbreviations *(cont.)*

UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
URAA	Uruguay Round Agreement on Agriculture
USA	United States of America
USDA	United States Department of Agriculture
VAT	Value Added Tax
VCS	Voluntary Coupled Support (European Union)
VFA	Viet Nam Food Association
VFD	Veterinary Feed Directive (United States)
WTO	World Trade Organisation

Executive summary

This report covers OECD countries and a range of emerging economies that account for the majority of global agricultural value added. These 50 countries differ in terms of the importance of agriculture in their economies, the structure and orientation of the sector, and the natural resource endowment on which agricultural production relies. To varying degrees, these countries all face the same opportunities and challenges: responding to growing demand for food and non-food uses of agricultural commodities; using available land, water and biodiversity resources more sustainably; adapting to and mitigating the effects of climate change; and coping with often unpredictable supply, demand and policy "shocks".

These countries also share a number of goals for the sector: providing consumers with reliable access to safe, healthy and nutritious food; enabling producers to improve their living standards by operating in an open and transparent global trading system; contributing to sustainable resource use, the provision of public goods and solutions to climate change; contributing to rural community well-being, including by providing a range of ecosystem services; increasing the resilience of farm households in the face of risks; and, overall, contributing to widespread inclusive growth and sustainable development. Countries attach different weights to these goals, and approach them differently, and this is reflected in differing policy mixes.

Together, the countries covered in this report provided an annual average of USD 585 billion (EUR 469 billion) of support to their agricultural producers directly in the years 2013-15, and an additional USD 87 billion (EUR 69 billion) on general services supporting the sector. However, the way in which countries provide support to farmers is arguably as important as the total level of that support. On average for the 50 countries covered, 68% of support to farmers was provided in the form of market price support, payments based on output or on input use without constraints; these measures distort production decisions and can significantly distort markets and trade. Relatively little of the support provided addresses directly the recognised opportunities and challenges that confront the sector.

For OECD countries as a whole, support has roughly halved in intensity over the past 30 years and now amounts to 17% of gross farm receipts. At the same time, average support levels in the emerging economies have increased from very low or even negative levels to approach the average level of OECD countries. But these averages mask widely divergent levels of support across the countries covered in this report: Australia, Brazil, Canada, Chile, Colombia, Israel, Kazakhstan, Mexico, New Zealand, South Africa, Ukraine, United States, and Viet Nam have support levels below – in some cases well below – the OECD average; support levels in the European Union (as a whole), the Russian Federation and Turkey are roughly at that average while China is just slightly higher; support levels in Indonesia are much higher but still well below the highest levels of support provided by Iceland, Japan, Korea, Norway and Switzerland.

Recommendations

At the OECD Meeting of Agriculture Ministers on 7-8 April 2016, 46 countries plus the European Union agreed on a ***Declaration on Better Policies to Achieve a Productive, Sustainable and Resilient Global Food System***. Ministers agreed that policies need to:

- Be coherent with economy-wide measures, including in relation to growth, development, trade, investment, employment, well-being, and the environment.
- Be transparent (with explicit objectives and intended beneficiaries), targeted (to specific outcomes), tailored (proportionate to the desired outcome), flexible (reflecting diverse situations and priorities over time and space), consistent (with multilateral rules and obligations) and equitable (within and across countries), while ensuring value for money for scarce government resources.
- Support a better-functioning multilateral trade system which will enable further integration of the sector, so that competitive suppliers are able to pursue market opportunities on an equitable, transparent, market oriented and non-discriminatory basis.
- Make innovation a priority in order to achieve sustainable productivity growth.
- Foster production systems that use available water, land, forest, energy, soil and biodiversity resources sustainably and which promote animal, plant and human health.
- Foster greater resilience of farmers to risk, to enable them to cope with more frequent, unpredictable events, such as weather-related shocks, disease outbreaks, and market volatility.

Gradual, though uneven, progress has been made in reducing overall support levels and shifting more of it towards less distortive policies. Nonetheless, this report concludes that a further reorientation of current food and agriculture policies is needed in many countries. Overall:

- Countries should shift the focus of their agricultural policies to address the emerging opportunities and challenges confronting the sector: to improve productivity growth, sustainable use of natural resources and resilience of farm households. In particular, investments in people (education, skills, and in some cases health services), strategic physical infrastructure, agricultural innovation systems that are responsive to the needs of producers and consumers are required.
- Countries should clarify and streamline their risk management policies. The boundaries between normal business risks, risks that can be handled through market-based tools, and catastrophic risks need to be defined in a transparent and operational manner.
- To improve the efficiency of direct payments, countries should define their specific policy objectives, such as improving environmental performance, supporting farm incomes, or improving rural community well-being, identify intended beneficiaries of such support, and target policy measures accordingly.
- Market price support should be progressively eliminated. It is not well targeted and does not reach the intended beneficiaries; it imposes significant costs on the food industry and on consumers, with particularly damaging implications in low-income countries.
- Payments based on output should also be gradually eliminated or targeted to specific objectives and intended beneficiaries. Input subsidies without constraints should be gradually eliminated; a significant share of these outlays leaks away outside the farm sector and there can be negative environmental impacts if the support leads to an over-use of inputs.

Chapter 1

Developments in agricultural policy and support

The key economic and market developments which provide the framework for the implementation of agricultural policies are analysed in the first part of this chapter. Highlights are then presented of the main recent changes and new initiatives in agricultural policies in 2015-16 in OECD countries and key emerging economies covered in this report. Then the developments in the estimated support (using the OECD Producer Support Estimate methodology) are evaluated in terms of its level, composition and changes over time in OECD countries and the emerging economies included in this report.

Key economic and market developments

Global growth eased to around 3% in 2015, as weaker growth in emerging economies more than offset a modest recovery in advanced economies (Table 1.1). Brazil and the Russian Federation have entered into deep recessions, while the ongoing slowdown in the People's Republic of China (hereafter "China") and associated weakness in commodity prices has hit activity in key trading partners and commodity exporting economies, and increased financial market uncertainty.

Table 1.1. **Key economic indicators***

	Average 2003-12	2013	2014	2015
	Per cent			
Real GDP growth[1]				
World[2]	4.0	3.2	3.3	2.9
OECD[2]	1.7	1.2	1.9	2.0
United States	1.8	1.5	2.4	2.4
Euro area	0.9	-0.3	0.9	1.5
Japan	0.8	1.6	-0.1	0.6
Non-OECD[2]	6.7	5.0	4.7	3.7
Brazil	3.8	2.7	0.2	-3.1
China	10.5	7.7	7.3	6.8
Colombia	4.7	4.9	4.6	2.8
Indonesia	5.7	5.6	5.0	4.7
Russia	4.7	1.3	0.6	-4.0
South Africa	3.4	2.2	1.5	1.5
Output gap[3]	-0.3	-2.5	-2.2	-1.8
Unemployment rate[4]	7.0	7.9	7.3	6.8
Inflation[5]	1.0	1.4	1.5	0.8
World real trade growth	5.6	3.3	3.4	2.0

* OECD area, unless noted otherwise.

1. Year-on-year increase; last three columns show the increase over a year earlier.
2. Moving nominal GDP weights, using purchasing power parities.
3. Percentage of potential GDP. An output gap refers to the difference between actual and potential gross domestic product (GDP) as a percentage of potential GDP.
4. Percentage of labour force.
5. Private consumption deflator. Year-on-year increase; last 3 columns show the increase over a year earlier.

Source: OECD (2015), *OECD Economic Outlook*, Vol. 2015/2, OECD Publishing, Paris, *http://dx.doi.org/10.1787/eco_outlook-v2015-2-en*. Last updated 02 December 2015.

StatLink http://dx.doi.org/10.1787/888933375786

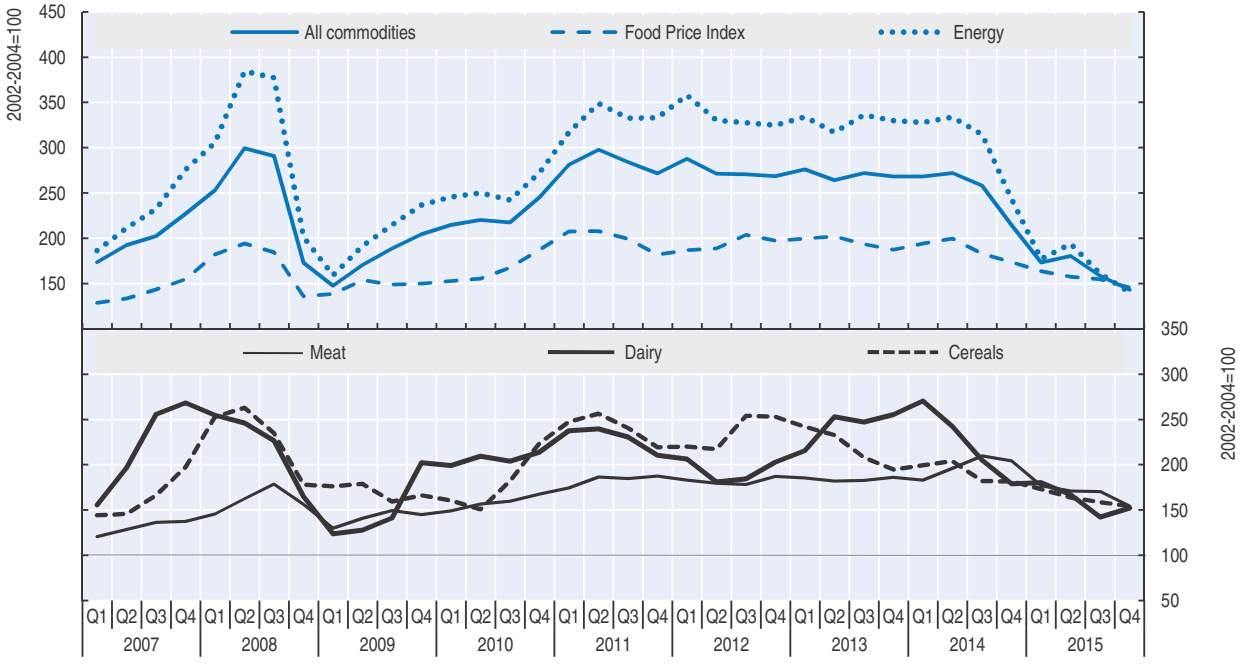
Growth in the OECD economies remained steady at around 2%, supported by an improvement in private consumption growth. The United States' recovery continued, supported by strengthening employment markets and growing household spending. US growth outpaced growth in most other OECD economies. Growth in the Euro area and Japan improved in 2015, but was weaker than expected given the boost provided by lower oil prices, weaker currencies and highly stimulative monetary policy. Growth in the Euro area was

supported by both domestic demand and exports, but hampered by the lack of a sustained acceleration of investment. Japan's economic expansion was disrupted by a sharp slowdown in demand from China and other Asian countries, and sluggish private consumption.

Global trade slowed markedly in 2015, partly reflecting weaker global GDP growth. However, a substantial proportion of the overall slowdown in global trade growth relative to 2014 is accounted for by a decline in import volumes in the non-OECD economies, principally China, the Russian Federation and Brazil. This contributed to weaker external demand in the advanced economies (OECD, 2015).

World prices for primary commodities continued to fall in 2015, reflecting abundant supplies, weaker growth prospects in emerging economies, and a strong US dollar (Figure 1.1, see also Box 1.5). Energy prices fell by 45% from 2014. Crude oil prices fell sharply, driven by slowing demand and record increases in supplies, particularly shale oil from North America. Oil prices averaged USD 50.8 per barrel for the year, down 47% from 2014 and the lowest annual level since 2004, and further dropped to USD 30 per barrel in January 2016. Prices of metals, minerals and agricultural crops are correlated and all declined to different degrees. Metal prices continued to fall for the fourth consecutive year, reflecting slowing demand (especially from China and other emerging economies), ongoing supply increases and (still) high stocks for a number of metals. Fertiliser prices fell due to surplus production capacity, lower energy prices (notably natural gas in the United States), and lower demand. Weaker demand for fertiliser stems from declining farmer profitability, lower crop prices, and depreciating currencies of key importing countries (World Bank, 2016).

Figure 1.1. **Commodity world price indices, 2007 to 2015**



1. The top part of the graph relates to the left scale, while the bottom part of the graph should read from the right scale.
2. Base year is 2002-04.

Source: IMF (2016), *Commodity Market Review*, Washington, DC: The International Monetary Fund for all commodities, food and energy indices *www.imf.org/external/np/res/commod/index.aspx*; FAO (2016), FAO *Food Price Index Dataset*, Rome: for meat, dairy and cereal indices. The base year is 2002-04. *www.fao.org/worldfoodsituation/foodpricesindex/en/*.

StatLink http://dx.doi.org/10.1787/888933374249

World prices for agricultural commodities continued to decline, down one-third from their 2011-12 peaks (but still above price levels experienced in the early 2000s). Lower prices reflected favourable supply conditions (despite the strong El Niño episode currently under way), the strong US dollar, low energy and fertiliser prices, high stock levels (as a result of good crop yields during the past two seasons), and weak growth of biofuel production. In particular, lower oil prices have also helped bring down costs, and have reduced the market incentive to use crops for first-generation biofuel production.

Food prices fell by around 12% between January 2015 and January 2016. Prices of all cereals fell to similar levels as in early 2007, following several years of rising production and increased stocks. Grain prices are 14% lower than a year ago and almost 40% below their early 2011 peaks.

Meat prices fell to a level last seen in early 2010, driven by weak demand throughout 2015. This followed an extended period of continued, though at times volatile, meat price increases that started back in 2002.

Prices of all dairy products continued to decline from their peak at the beginning of 2014 as a result of decreased global demand and increased global production. Key factors were the decline in import demand from China, continued production growth in key exporters, and the Russian Federation's ban on dairy imports from the European Union, the United States and Australia. The removal of the EU milk quota in March 2015 has allowed growth in total milk production in the European Union (OECD/FAO, 2016).

On average, lower agricultural commodity prices on international markets have increased the gaps between domestic and border prices in most countries. To some extent, the strong USD has offset the effect of declining commodity prices, particularly in countries which have experienced a stronger devaluation in their currency against the USD (Box 1.5).

Developments in agricultural policies

The years 2015 and early 2016 were significant for the international focus on issues that are relevant to the agricultural sectors and policies of countries. In 2015, the new United Nations' Sustainable Development Goals (SDGs) were adopted, and the WTO Tenth Ministerial Conference and the 21st annual Conference of Parties (COP 21) took place. In 2016, Ministers and representatives from 47 countries met at the OECD for the Meeting of the OECD Committee for Agriculture at the Ministerial Level (Box 1.1). This section considers recent developments in agricultural policies in light of the outcomes of these meetings. Specific details on policy developments in the countries analysed in this report can be found in the country snapshots which follow this chapter and in the extended country chapters that are available online.

Box 1.1. **Meeting of the OECD Committee for Agriculture at Ministerial Level 7-8 April 2016**

Better Policies to Achieve a Productive, Sustainable and Resilient Global Food System

Agriculture Ministers and representatives from OECD's 34 member countries and the European Union, and those from Argentina, Brazil, Colombia, Costa Rica, Indonesia, Latvia, Lithuania, Peru, Romania, Saudi Arabia, South Africa, Ukraine and Viet Nam, together with representatives from a number of international organisations, met at the OECD to discuss opportunities and challenges for the global agriculture and food sector and to explore appropriate policy responses to underpin competitive, sustainable, productive and resilient farm and food businesses.

Box 1.1. **Meeting of the OECD Committee for Agriculture at Ministerial Level 7-8 April 2016** *(cont.)*

Better Policies to Achieve a Productive, Sustainable and Resilient Global Food System

As an outcome of the meeting, Ministers issued a *Declaration on Better Policies to Achieve a Productive, Sustainable and Resilient Global Food System*, in which they outlined a set of shared goals for the agriculture and food sector:

- To provide all consumers with reliable access to safe, healthy and nutritious food.
- To enable producers, big and small, male and female, everywhere to operate in an open and transparent global trading system and to seize available market opportunities to improve their standards of living.
- To contribute to sustainable productivity and resource use, solutions to climate change, resilience in the face of risk, and the provision of public goods and ecosystem services.
- To contribute to inclusive growth, and development, within and across countries.

Ministers also agreed to a set of policy principles to ensure an integrated approach to agriculture and food policies reflecting these shared goals. In particular, Ministers agreed that policies need to:

- Be coherent with economy-wide measures, including in relation to growth, development, trade, investment, employment, well-being, and the environment. Special efforts are needed, particularly in less developed economies, to improve the enabling environment in which the sector operates (from health and education to physical infrastructure and land rights), to encourage much needed public and private investments, and to enable farms of all sizes, including smallholders, to choose the growth path which offers them the greatest opportunity.
- Be transparent (with explicit objectives and intended beneficiaries), targeted (to specific outcomes), tailored (proportionate to the desired outcome), flexible (reflecting diverse situations and priorities over time and space), consistent (with multilateral rules and obligations) and equitable (within and across countries), while ensuring value for money for scarce government resources.
- Support a better-functioning multilateral trade system which will enable further integration of the sector, so that competitive suppliers are able to pursue market opportunities on an equitable, transparent, market oriented and non-discriminatory basis. This will allow the sector to take advantage of the benefits of trade for inclusive economic growth, sustainable development, and global food security, while observing the principles of responsible business conduct.
- Make innovation a priority in order to achieve sustainable productivity growth, including through organisational change, cross-sectorial co-operation, greater public and private investment in research and development, technology transfer and adoption, education and training, and advisory services.
- Foster production systems that use available water, land, forest, energy, soil and biodiversity resources sustainably and which promote animal, plant and human health.
- Foster greater resilience of farmers to risk, to enable them to cope with more frequent, unpredictable events, such as weather-related shocks, disease outbreaks, and market volatility.

Ministers also noted the value of open dialogue in building mutual understanding and trust amongst countries and emphasised the importance of enhanced international co-operation, particularly in the areas of trade, investment, innovation and climate change. They recognised the important role played by the OECD in support of policy reform efforts in its members and increasingly, in partner countries, in the field of food and agriculture.

Finally, Ministers invited the OECD to accelerate efforts to build a solid evidence-base on the best policy mixes to achieve their shared goals, and noted priorities for the urgent attention of the OECD.

The full text of the Declaration and the summary of the discussions and outcomes of the meeting provided by the Co-Chairs, Minister Stéphane Le Foll of France and Secretary Tom Vilsack of United States, can be found at *www.oecd.org/agriculture/ministerial/*. The next Meeting of the OECD Committee for Agriculture at the Ministerial Level will take place within 5-6 years.

Source: OECD (2016b), Meeting of the OECD Committee for Agriculture at Ministerial Level 7-8 April 2016 – Declaration on Better Policies to Achieve a Productive, Sustainable and Resilient Global Food System, available at *www.oecd.org/agriculture/ministerial/statements/*.

The beginning of 2016 also marked a milestone in the OECD's Agricultural Policy Monitoring and Evaluation reports, in that its coverage reached 50 countries with the addition of Viet Nam. The present report is the 29th in the series of OECD reports that monitor and evaluate agricultural policies across countries, and the fourth report to include both OECD countries and a set of emerging economies. The present report includes countries from six continents, including the 34 OECD countries as well as the seven non-OECD EU member states and nine emerging economies. In much of this report, the European Union is counted as one economic region.

The expanded reach of the report means that the countries covered are diverse and differ in terms of the importance of agriculture in their economies, the structure and orientation of the sector, and the natural resource endowment on which agricultural production relies. These differences notwithstanding, the challenges facing agriculture in these countries, and motivating their agricultural policies, are broadly the same. These include: assuring the economic viability of the agriculture sector; producing enough and nutritious food to cater to the needs of the population; and improving the environmental and sustainability performance of the sector. Policy approaches attach different weights to these challenges, reflecting the different roles agriculture plays in countries' economies.

While the UN SDGs and COP 21 focus attention on the second and third challenges, assuring the economic viability of the agriculture sector continues to be an important goal. In the majority of countries covered in this report, the policy approach emphasises support to producers. A number of countries continue to provide market price support through border measures and domestic market policies, and several subsidise the cost of purchased variable inputs and capital.[1] Subsidies for variable inputs and concessional credit are particularly important in the emerging economies. Other countries have moved to providing producer support via policy instruments that do not directly influence farm production decisions. For example, the **United States** and **Canada** emphasise policies that mitigate the downside risks to revenue and income. The **European Union** and **Switzerland** emphasise direct payments to farmers, requiring cross-compliance with environmental and sustainability criteria.

In contrast, a minority of countries emphasise support to provide an enabling business environment for agriculture. Countries that focus their policy instruments on general services with a public good character include **Australia**, **Chile**, **New Zealand**, **South Africa** and **Viet Nam**.

As the regional coverage of this report has expanded to include emerging economies, the role of food security concerns in motivating agricultural policies has increased. Some countries aim to enhance food security by achieving higher rates of food self-sufficiency, even though the policy measures most often used to achieve self-sufficiency can be detrimental to food security objectives in the long term. A number of countries have explicit food self-sufficiency targets. For example, **China** maintains a 95% self-sufficiency target for wheat and rice. **Indonesia** is committed to achieving self-sufficiency in five key staples – rice, maize, soybeans, sugar and beef. The **Russian Federation** sets self-sufficiency targets for grains, sugar, vegetable oil, meat, milk, and fish products at rates between 80% and 95%.

Self-sufficiency also motivates agricultural policies in some OECD countries. **Japan's** new Basic Plan on Food, Agriculture and Rural Areas sets a food self-sufficiency target of 45% on a calorie supply basis and 73% on production value basis by 2025. **Korea's**

Agriculture, Rural Community and Food Industry Development Plan for the period of 2013-17 sets a quantity-based self-sufficiency ratio of grains at 30%. Other OECD countries pursue self-sufficiency without setting explicit targets. For example, **Mexico's** agricultural development plan for 2013-18 aims to increase agricultural production and achieve greater self-sufficiency in principal grains and oilseeds, and to eliminate the negative balance in agro-food trade. **Switzerland** aims to maintain its current rate of self-sufficiency (around 50% on a calorie supply basis), but has not set commodity-specific targets. **Turkey** defines agricultural production and supply security as a strategic area for the agricultural sector.

The opportunities for agricultural policies to help address food security were highlighted in the new sustainable development goals (SDGs), adopted by the United Nations General Assembly in 2015 (summarised in Box 1.2). While the majority of the SDGs are either directly or indirectly relevant for agriculture, the second goal, which calls to end hunger, achieve food security and improved nutrition, and promote sustainable agriculture, is particularly relevant. Targets for this goal include the doubling of agricultural productivity and incomes of small-scale food producers; the correction of international trade restrictions; increased investment in agricultural research, extension services and technology; and the implementation of sustainable food production systems and practices by 2030.

Box 1.2. **Sizing up the SDGs: What is the importance of the United Nations Sustainable Development Goals for Agriculture?**

On 25 September 2015, the United Nations' 17 new Sustainable Development Goals (SDGs) were adopted at the United Nations Sustainable Development Summit. In view of the close connections which exist between agriculture and rural development, and the alleviation of poverty, hunger and malnutrition worldwide, the majority of the SDGs, listed below, are either directly or indirectly relevant for agriculture and agricultural policies.

Abbreviated goal titles[1]

1. No poverty: Includes targets for the eradication of extreme poverty (incomes of less than USD 1.25 a day) and at least 50% reduction of poverty (in all its dimensions according to national definitions) by 2030. Reference is also made to ownership and control over land and natural resources.

2. Zero hunger: Numerous relevant targets, including the ending of hunger and malnutrition; the doubling of agricultural productivity and incomes of small-scale food producers; the correction of international trade restrictions; increased investment in agricultural research, extension services and technology; and the implementation of sustainable food production systems and practices by 2030.

3. Good health and well-being: Includes the reduction of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

4. Quality education: Includes the target that "all learners" acquire, by 2030, the knowledge and skills needed to promote sustainable development.

5. Gender equality: Includes the eradication of gender discrimination, including in land ownership.

6. Clean water and sanitation: Relevant for water use efficiency of agricultural production, the improvement of water quality via the reduction of pollution, and the protection of water-related ecosystems.

7. Affordable and clean energy: Includes targets for the substantial increase of renewable energy and doubling of the improvement in global energy efficiency by 2030.

8. Decent work and economic growth: Features relevant targets for sustainable per capita economic growth, improvement of resource use efficiency, and access to financial services and insurance.

Box 1.2. **Sizing up the SDGs: What is the importance of the United Nations Sustainable Development Goals for Agriculture?** *(cont.)*

9. Industry, innovation and infrastructure: Agriculture-relevant targets include the development of sustainable and resilient infrastructure, increased SME access to financial services and their integration into value chains, and the encouragement of innovation.

10. Reduced inequalities: Targets include progressively achieving and sustaining income growth of the bottom 40 per cent of the population at a rate higher than the national average by 2030.

11. Sustainable cities and communities: Targets include supporting positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning.

12. Responsible production and consumption: Includes the reduction of food losses and waste, efficient use of natural resources, environmentally-sound management of chemicals and waste and the reduction of fossil-fuel subsidies.

13. Climate action: Targets strengthened resilience to climate-related hazards and the joint mobilisation of USD 100 billion annually by 2020 to facilitate climate change mitigation by developing countries.

14. Life below water: Includes the prevention and significant reduction by 2025 of marine pollution, nutrient pollution in particular; the effective regulation of fishing to ensure sustainable fishing practices; and the prohibition of certain fisheries subsidies by 2020.

15. Life on land: Targets the conservation and sustainable use of freshwater ecosystems and their services – such as wetlands – and the promotion of sustainable forest management – the halting of deforestation included – by 2020, the combatting of desertification and the restoration of degraded land and soil by 2030, and the prevention of biodiversity loss.

16. Peace, justice and strong institutions: Targets substantial reductions in corruption and bribery in all their forms and the development of effective, accountable and transparent institutions at all levels.

17. Partnerships for the goals: Features agriculture-relevant targets on international trade, including the promotion of an open, non-discriminatory and equitable multilateral trading system and the conclusion of the WTO Doha Development Round.

1. Abbreviated titles as per United Nations formulation. For full titles, see *https://sustainabledevelopment.un.org/sdgs*.
Source: https://sustainabledevelopment.un.org/sdgs.

The UN SDGs highlight roles for international trade and investment in general services such as the agricultural innovation system. Similarly, Ministers at the Ministerial Meeting of the OECD Committee for Agriculture agreed that policies need to support a better-functioning multilateral trade system and make innovation a priority, so that farmers and food systems can contribute to global food security (among other objectives for the sector) (see Box 1.1 and OECD, 2016b).

However, most countries with explicit food self-sufficiency targets continue to rely on distorting domestic and trade policy settings to stimulate domestic production, particularly minimum prices and tariffs on imports, despite evidence that they are detrimental to food security. Subsidies for variable inputs and concessional credit are also important in some countries with self-sufficiency targets. For example, fertiliser subsidies account for 44% of budgetary transfers in **Indonesia** (which also provides subsidies for seeds and concessional credit), while the **Russian Federation** provides concessional credit and a range of subsidies for variable inputs. **Turkey** provides deficiency payments for products that are in short supply (oilseeds, olive oil, cotton, cereals and tea), and also has import tariffs for cereals, and input subsidies including concessional credit.

The agriculture sector faces the challenge of contributing to food security while adapting to changing temperatures, precipitation patterns, and more frequent extreme weather events. Climate change poses a threat to agricultural production systems in most countries. This was recognised in the 2015 Paris Agreement on Climate Change, the preamble of which acknowledges "the fundamental priority of safeguarding food security and ending hunger, and the particular vulnerabilities of food production systems to the adverse impacts of climate change". While the agreement does not include specific actions for the sector, it does not rule out mitigation efforts in agriculture (Box 1.3).

Agriculture is a significant source of greenhouse gas (GHG) emissions: around 24% of global anthropogenic GHG emissions are estimated to arise from agricultural production activities, forestry and land use changes (Victor et al., 2014). At a country level policy efforts to reduce agricultural GHG emissions are relatively limited. Countries with initiatives related to mitigation in agriculture include **Australia**, **Japan**, **New Zealand** and **Norway**. More recently, in 2015 **Iceland** announced a new plan for reducing GHG emissions and tackling climate change that includes a reduction in emissions generated by fisheries, agriculture and land use. However, there are several initiatives at the multilateral level, including the *Global Research Alliance on Agricultural Greenhouse Gases* (GRA) and the *Global Alliance for Climate Smart Agriculture* (GACSA). Member countries of the GRA collaborate on the research, development and extension of technologies and practices to help deliver more climate-resilient food systems without increasing GHG emissions. A major focus of the GACSA is to increase research and development of new farm technologies and practices that will help farmers deal with the heightened risks associated with climate change. As part of the Lima-Paris Action Agenda (Box 1.3), the *4 per 1000 Initiative: Soils for Food Security and Climate* targets the maintenance and enhancement of soil carbon storage on as many agricultural soils as possible, and the preservation of carbon-rich soils.

Agricultural policies generally prioritise adaptation, more sustainable use of resources (water in particular), and helping farmers recover from the impacts of extreme events. Under CAP 2014-20, **EU member states** are to spend a minimum of 30% of rural development funding from the EU budget on measures related to the environment and climate change adaptation. Support is conditional on cross-compliance with environmental and sustainability criteria in **Chile**, the **European Union**, **Switzerland** and the **United States**. To be eligible for credit and insurance programmes in **Brazil**, producers must comply with zoning rules that determine planting times based on weather, soil and crop cycle related criteria. Payments for voluntary agri-environmental programmes are also provided in **Australia**, the **European Union**, **Japan**, **Korea**, **Norway**, **Switzerland** and the **United States**. **China** has initiated a plan to reduce the use of chemical fertilisers and pesticides, which aims to achieve zero-growth in their use by 2020. Improving water use efficiency is a priority in a number of countries, including **Australia**, **Chile**, **Kazakhstan** and **Turkey**. In 2015, **Chile** launched a National Policy on Water Resources in response to increasing concerns about increasing demand for water, while **Israel** increased the target price of water for agricultural use as part of broader reform efforts.

Most countries provide *ad hoc* assistance in response to extreme climate events. For example **South Africa** is providing exceptional public funding in 2016 for drought relief following consecutive droughts in 2014 and 2015 due to a severe *El Niño* phenomenon. The money will go mostly towards water provisioning, agriculture support, and the provisioning of transport and feed for livestock.

Box 1.3. **What are the implications of COP 21 for agriculture?**

At COP 21 in Paris, agreement was reached on the UNFCCC[1] Paris climate accord. The Paris Agreement[2] sets a long-term goal to contain the increase in global average temperatures to well below 2 °C above pre-industrial levels and a pledge to "pursue efforts" to limit it to 1.5 °C. To reach this goal, Parties agreed on the need for global emissions to peak and start declining as soon as possible – recognising that this will take longer for developing countries – and to undertake rapid reductions thereafter in accordance with the best available science.

Agriculture is not directly mentioned within the agreement itself. Nevertheless, both the text and the country-level strategies for emissions reduction, which are outlined in the form of Intended Nationally Determined Contributions (INDCs), recognise the threat which climate change poses to sustainable food production and offer opportunities for agriculture to be an active part of the solution to climate change.

Relevance of the Paris Agreement for food and agriculture

Explicit reference is made within the preamble of the agreement to food security and production, which acknowledges "the fundamental priority of safeguarding food security and ending hunger, and the particular vulnerabilities of food production systems to the adverse impacts of climate change". Moreover, Article 2 of the agreement underlines the importance of food production, clearly stating that "This agreement […] aims to strengthen the global response to climate change […] in a manner that does not threaten food production".

By giving governments the freedom to decide exactly which emission sources to address, the agreement does not rule out mitigation in agriculture. Article 4.1, for example, states governments' aim to "*achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century*". Reference is made in Article 5.1 to carbon sinks which should be conserved and enhanced.

Where adaptation is concerned, the agreement outlines numerous government actions to strengthen societies' ability to deal with the impacts of climate change and to provide continued and enhanced international support for adaptation to developing countries. These include financial support by developed countries, such as the ongoing collective goal to mobilise USD 100 billion per year until 2025 for adaptation and mitigation in developing regions, a figure which should be increased from 2025 onwards.

Intended Nationally Determined Contributions (INDCs)

Beyond the agreement itself, a number of the INDCs make reference to agriculture and food production. Of the 133 INDCs analysed by the Consultative Group of International Agricultural Research (CGIAR) in late November 2015, agricultural adaptation was referred to in 102 (94 of which included at least one adaptation measure), and targets related to agricultural mitigation were included in 103 (84 of which specified at least one mitigation measure).[3] Agricultural water management was included in 83 submissions.

The application of the INDCs will be supported by the Lima-Paris Action Agenda (LPAA). The LPAA features five major initiatives concerning agriculture. Initiatives include the *4 per 1000 Initiative: Soils for Food Security and Climate*, launched by state and non-state partners, which aims to protect and increase carbon stocks in soils, and the *Adaptation for Smallholder Agriculture Program* (ASAP), which intends to increase the climate resilience and food security of smallholder farmers.

Next steps

On 22 April 2016, the Paris Agreement was opened for signature for one year and was signed by 174 countries and the European Union. The agreement will enter into force after 55 countries that account for at least 55% of global emissions have deposited their instruments of ratification. Governments have agreed to meet every five years to take collective stock of the implementation of their strategies and to set more ambitious goals. The first formal global stocktaking dialogue will take place in 2023.

1. United Nations Framework Convention on Climate Change.
2. *http://unfccc.int/paris_agreement/items/9485.php*.
3. CGIAR, Research Program on Climate Change, Agriculture and Food Security, and CCAFS (November 2015), *https://cgspace.cgiar.org/rest/bitstreams/62364/retrieve*.

In some countries, there are also formal programmes to help farmers manage climate risks. In **Australia**, drought support measures focus on encouraging drought preparedness and resilience, although new drought assistance measures implemented in 2014 have reintroduced concessional loans (loans at below market interest rates). A range of mechanisms are used in other countries, including subsidised insurance programmes that provide multi- and single-peril insurance coverage for production losses due to natural perils or disasters, and subsidised crop insurance for production losses, including those caused by weather. This is the case in **Brazil**, **Canada, China, Japan**, **Korea**, the **Russian Federation**, **Turkey**, **the United States** and a number of **EU member states**, such as the Netherlands and Spain.

Achieving the shared goals for agricultural policies (Box 1.1) will require comprehensive and consistent policy packages. Beyond the UN SDGs and the Paris Agreement on Climate Change, other international developments in 2015 also signal progress towards this goal.

In December 2015, the WTO's 10th Ministerial Conference reached an agreement on a package of Ministerial Decisions, a number of which are highly relevant to agriculture (Box 1.4). In particular, the agreement included the commitment to eliminate export subsidies for agricultural products and disciplined other forms of export measures. The Ministerial Declaration that introduces the package also refers to the future of the Doha Development Agenda, noting the "strong commitment" of all WTO members to advance negotiations on the remaining issues, including agricultural domestic support, market access and export competition.

Box 1.4. **What does the Nairobi package imply for agriculture?**

On 19 December 2015, the WTO Tenth Ministerial Conference (MC10) in Nairobi, Kenya agreed on a package of Ministerial Decisions, a number of which are relevant to agriculture. The "Nairobi Package" includes a commitment to abolish export subsidies for farm exports, in addition to other agriculture-relevant decisions concerning public stockholding for food security purposes; a special safeguard mechanism (SSM) for developing countries; measures related to cotton; and preferential rules of origin.

Export subsidies: A key feature of the Nairobi Package is a Ministerial Decision on Export Competition, under which developed countries have pledged to eliminate subsidies for farm exports, with the exception of scheduled export subsidies for dairy and processed products and pork. The latter have been given more time and have been agreed to be phased out by the end of 2020. Developing countries have until the end of 2018 to phase out export subsidies, but will be able to continue to cover marketing and transport costs for agriculture exports until the end of 2023. The poorest and food-importing countries will be granted until the end of 2030 to meet their commitments.

In addition to the above, the decision contains restrictions, or "disciplines", to prevent the use of other export policies as subsidies. These disciplines include limitations on financing support for agriculture exporters, such as export credits, export credit guarantees or insurance programmes; rules for agricultural exporting state enterprises; and disciplines to ensure that international food aid does not adversely impact domestic markets.

Public stockholding for food security: The decision on Public Stockholding for Food Security Purposes reaffirms the commitment of WTO members to negotiate and make all concerted efforts to agree and adopt a "permanent solution" to this issue, which had been at the centre of discussions at the Bali Ministerial in 2013.

Box 1.4. **What does the Nairobi package imply for agriculture?** *(cont.)*

Cotton: The cotton decision calls on developed countries – and developing countries that declare themselves able to do so – to grant listed "cotton-related" exports from LDCs duty-free and quota-free access from 1 January 2016 onwards, to the extent provided for in their respective preferential trade agreements in favour of LDCs. Developed countries are also required to end cotton export subsidies immediately, while developing countries must do so by 1 January 2017. The decision also acknowledges reforms made by certain countries to their domestic cotton policies which may contribute to the reduction of domestic subsidies, while emphasising that further efforts need to be made.

Special Safeguard Mechanism (SSM): Countries agreed to maintain the right of developing countries to have recourse to a SSM based on import quantity and price triggers with precise arrangements to be further defined as envisaged under paragraph 7 of the Hong Kong Ministerial Declaration. Negotiations on an SSM will be pursued in the WTO Committee on Agriculture in Special Session in the context of addressing outstanding agricultural issues.

Other agriculture-relevant decisions at MC10 included a decision on preferential rules of origin for least developed countries. The decision states that when Members apply a processing criterion for agricultural goods they shall, to the extent provided for in their preference programme, allow the transformation of raw agricultural products into processed products to confer origin. Members are also asked to consider extending preferential treatment to products containing non-LDC originating materials of up to 75% of the final value of the product.

Source: World Trade Organisation (2015), *www.wto.org/english/thewto_e/minist_e/mc10_e/nairobipackage_e.htm.*

Outside of the multilateral trading system, twelve Pacific Rim countries signed the **Trans-Pacific Partnership** (TPP) agreement: Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, United States and Viet Nam. The TPP will enter into force 60 days after all original signatories have notified completion of their domestic legal procedures. If this has not occurred within two years of signature, the Agreement will enter into force 60 days after the expiry of that two year period if at least six original signatories, accounting for 85% of the combined gross domestic product of the original signatories, have ratified the Agreement. Also in 2015, a Treaty on the **Eurasian Economic Union** (EAEU) came into effect, with the Russian Federation, Belarus, Kazakhstan as founding members, subsequently joined by Armenia and Kyrgyzstan. Beyond free trade and common customs territory, EAEU foresees free movement of capital and labour and a "co-ordinated, agreed upon, or common" economic policy in member countries.

The international agreements reached in 2015-16 have major implications for the agricultural sectors and policies of countries covered in this report. Collectively, they call for agricultural policies that support innovation, correct international trade restrictions and contribute solutions to climate change and to sustainable productivity and resource use. As noted by Ministers at the OECD Meeting of Agriculture Ministers, integrated policy approaches are needed to "enable farmers and the food sector to simultaneously improve productivity, increase competitiveness and profitability, improve resilience, access markets at home and abroad, manage natural resources more sustainably, contribute to global food security, and deal with extreme market volatility, while avoiding trade distortions". Going forward, the expectation is that future developments in agricultural policies will be guided by the policy principles set out in the Declaration adopted by Ministers at the OECD Meeting of Agriculture Ministers, and other multilateral commitments.

As past *Agricultural Policy Monitoring and Evaluation* reports have shown, countries are moving away from support that distorts trade and production towards policies that do not directly influence farm production decisions and support long-term priorities, such as environmental sustainability and innovation.

While this long-term trend is broadly in line with declared policy principles, reforms in 2015 have been limited for most countries. As indicated above (and as will become clear from the support data discussed in the next section), many countries continue to put significant focus on border measures protecting their domestic agricultural sector against competition from abroad, often raising domestic prices above those on world markets. A number of important reforms were undertaken, however, and are likely to improve the functioning of countries' markets: **China** lowered the floor price for maize for the first time since it was introduced in 2007. China also announced its intention to undertake further reforms to the maize purchasing and storage system. Maize prices will be determined by market forces, and maize producers will instead receive subsidies to stabilise revenues. China also abandoned the stock holding programme for cotton, soybeans and rapeseeds and switched to a trial subsidy programme based on a target price system for cotton and soybeans. The **European Union's** milk production quotas expired in early 2015, marking an important change to the common organisation of agricultural markets in this sector. **Israel** continued to reduce support to agriculture by increasing the target price of water for agricultural use and by reducing guaranteed prices for a number of commodities. Reforms are also envisaged in other OECD countries. Under the TPP agreement, most agricultural trade restrictions in **Japan**, including those for sensitive products such as rice, pork, dairy, beef, wheat, and sugar, will be reduced, albeit with long phase in periods. Finally, **Norway** is considering agricultural policy reforms, and has launched several commission and white-paper processes.

Overall, progress continues to be slow. In part, this is because agricultural policy changes tend to be incremental and take the form of adjustments to, or the continuation of, policy settings and programmes within broader agricultural policy frameworks.

Developments in agricultural support

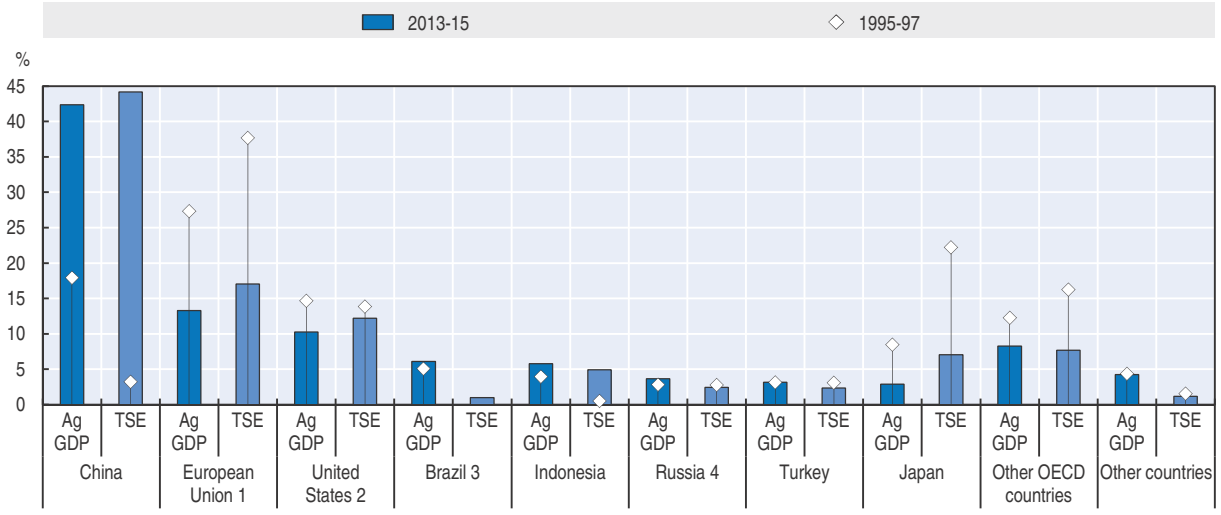
This section provides a quantitative assessment of policy support to agriculture, based on a set of OECD indicators. These indicators express the diversity of support measures applied in different countries in a few simple numbers that are comparable across countries and over time, with different indicators focusing on different dimensions of support policies. The Reader's Guide provides definitions of the indicators used in the report.

The assessment begins with an overview of total support provided to agriculture and relative to GDP and to agricultural value added. The assessment considers the main components of total support, and discusses transfers provided to agricultural producers as measured by their share in gross farm receipts (the percentage PSE). Transfers to producers take different forms and are hence represented and discussed through various sub-indicators. Subsequently, the assessment shows developments in the second key part of support, which is support provided to general services for the agricultural sector. Finally, this section presents how consumers of agricultural commodities are paying for a significant part of support to producers.

Agricultural sectors and total support as measured by the TSE

The countries covered in this report account for the majority of global agricultural value added. But the composition across these countries has undergone significant changes over time. Thanks to its massive growth over the past decades, China's share in the agricultural value added of all countries covered by this report has increased from 18% during 1995-97 to 42% in 2013-15 (Figure 1.2). Other emerging economies, such as Brazil, Indonesia and the Russian Federation, have also increased their shares in agricultural value added. In turn, the weights of the European Union, the United States and Japan, which in the mid-1990s together had represented half of the agricultural value added covered, have fallen substantially: While still contributing significant shares, the European Union's weight has fallen from 27% to 13% and that of the United States from 15% to less than 10%.

Figure 1.2. **Country shares in total agricultural value added and total TSE, 1995-97 and 2013-15**



Note: Because of data availability, countries are ranked according to their shares in total agricultural GDP in 2012-14. TSE corresponds to 2013-15. Agricultural GDP is measured as agricultural value added.

1. EU15 for 1995-97; EU27 for 2012-13 and EU28 from 2014 when available.
2. For the United States, 2014 Ag GDP is replaced by 2013.
3. For Brazil, 1995-97 is not available as TSE was negative in this period.
4. For Russia, 2013-15 is replaced by 2012-14.

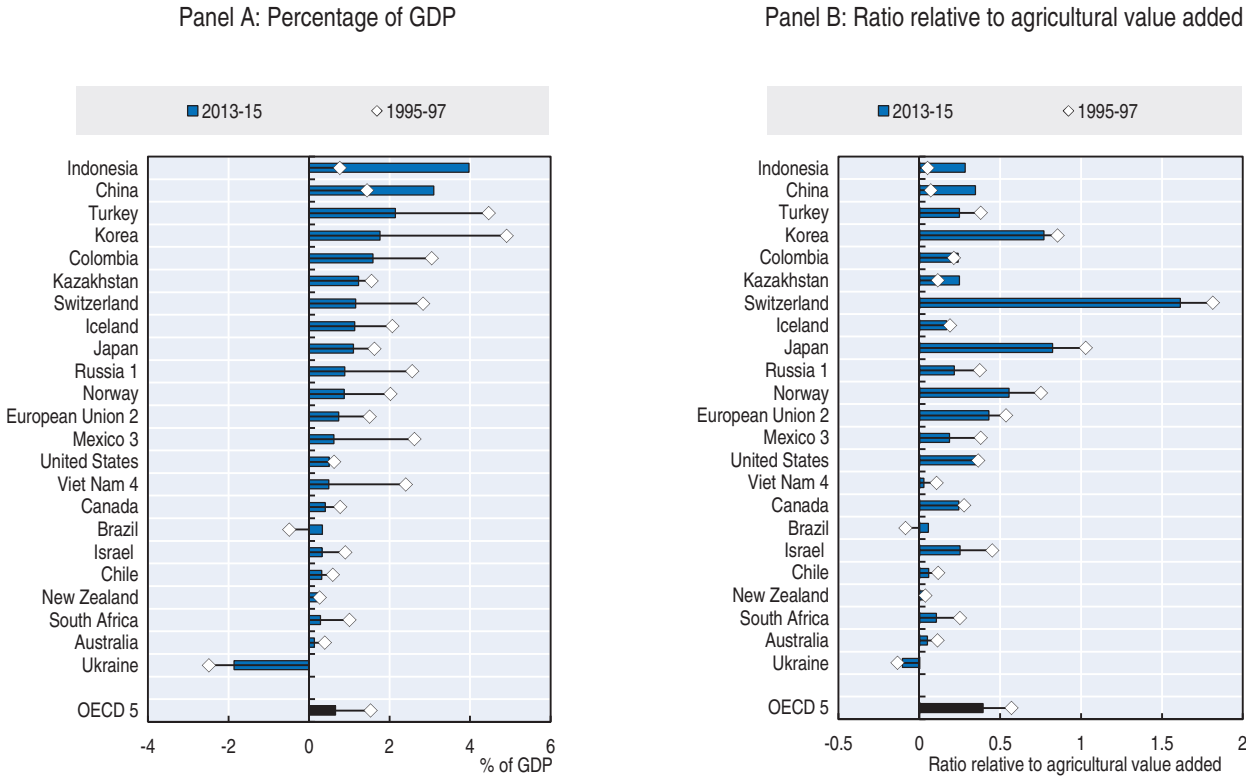
Source: OECD (2016a), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database), *http://dx.doi.org/10.1787/agr-pcse-data-en*; World Development Indicators (2015).

StatLink http://dx.doi.org/10.1787/888933374259

Figure 1.2 shows that the impressive increase in the weight of China in the total support to agriculture TSE[2] goes beyond the relative size of its agricultural sector: China's share in the total TSE covered in this report has risen even more significantly than its share in total agricultural value added, from just 3% in the mid-1990s to more than 44% in the most recent period. Indonesia has undergone a similar development and raised its share in the total TSE from 0.5% to 5%. In contrast, the European Union, Japan and the United States, which together represented almost three-quarters of the TSE in 1995-97, provided just over a third of the total TSE in 2013-15.

The overall burden of the support to agriculture on countries' economies is measured by the Total Support Estimate expressed as a percentage of GDP (%TSE, Figure 1.3, Panel A). In most countries covered in this report, the %TSE has decreased since the mid-1990s, in line

Figure 1.3. **Total Support Estimate by country, 1995-97 and 2013-15**



Notes: Countries are ranked according to the %TSE in 2013-15.

1. For Russia, 2013-15 is replaced by 2012-14.
2. EU15 for 1995-97; EU27 for 2012-13; and EU28 from 2014 when available.
3. For Mexico, 1995-97 is replaced by 1991-93.
4. For Viet Nam, 1995-97 is replaced by 2000-02.
5. The OECD total does not include the non-OECD EU member states. The Czech Republic, Estonia, Hungary, Poland, the Slovak Republic and Slovenia are included in the OECD total for both periods and in the EU for 2012-14.

Source: OECD (2016a), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en*.

StatLink *http://dx.doi.org/10.1787/888933374269*

with the declining weight of the agricultural sector within countries' overall economy. There are, however, a number of significant exceptions. In Indonesia, where the sector's large share in total GDP has barely changed, the %TSE has increased from 0.8% of GDP in 1995-97 to 4% of GDP in 2013-15, putting Indonesia at the top in terms of transfer of resources to the agricultural sector relative to the economy's size, and stressing the high price society is paying for what the government considers a priority sector. China has also seen a substantial increase with the %TSE rising from 1.4% in 1995-97 to 3.1% in 2013-15, in spite of the agricultural share in the GDP having halved in that period. Both Ukraine and Brazil taxed their agricultural sectors during the mid-1990s. While the Ukraine still taxes agriculture, this burden to its farmers has decreased. In contrast, Brazil now provides some positive support worth about 0.3% of its GDP. In the other emerging economies, %TSE fell to 1.6% in Colombia, 1.2% in Kazakhstan, 0.9% in the Russian Federation and 0.3% in South Africa.

For the OECD aggregate, the %TSE has fallen from 1.5% of the total GDP in 1995-97 to less than 0.7% in 2013-15. Some of the countries where the relative cost of total agricultural support used to be particularly high have reduced that burden significantly, including Korea, Turkey, Switzerland and Mexico. Still, the %TSE during 2013-15 exceeded 1% of GDP in Turkey, Korea, Switzerland, Iceland and Japan. With the exception of Turkey, agriculture contributes a small share of GDP in these countries.

While the %TSE provides a good picture of the burden agricultural support places on the economy, it is equally important to understand the relative importance of support for countries' agricultural sectors. Panel B of Figure 1.3, which presents the total support relative to the size of the sector, suggests that support provided through public policies has a high importance for the agricultural sectors in a number of countries. Here, six OECD regions are heading the list, with the Swiss ratio of TSE relative to its agricultural value added of 1.6 in 2013-15. Japan and Korea both provide support to the level of about 0.8 times the size of their agricultural value added. This ratio is 0.6 for Norway and 0.4 for both the European Union and the United States, closely followed by China with a ratio of TSE to agricultural value added of 0.35. In the majority of countries, the ratio was between 0.1 and 0.3, while in five countries the agricultural sectors benefited from smaller support with ratios relative to the agricultural value added of less than 0.06. In contrast, the implicit taxation of Ukraine's agricultural sector resulted in a negative ratio of about -0.1. In contrast to the overall burden of the support to agriculture on countries' economies (Panel A), Panel B of Figure 1.3 also shows that, for most countries, this relative importance to the agriculture sector has changed little over time.

Figure 1.4 shows the composition of the aggregate Total Support Estimate: the Producer Support Estimate (PSE), the General Services Support Estimate (GSSE) and the transfers from taxpayers to consumers, a part of the Consumer Support Estimate (CSE). In the majority of countries, the PSE is dominant: on average, it accounts for more than 80% of the TSE. The United States is one of the exceptions: support for consumers through the Supplemental Nutrition Assistance Program (SNAP, formerly known as Food Stamps) and other food assistance programmes represents almost half of the total support in the United States. GSSE expenditures account for the majority of the TSE in Viet Nam, New Zealand and Australia; in Chile and South Africa it still represents more than a third of the TSE. In all of these countries, however, the TSE is comparatively small at 0.5% or less in the countries' GDP.

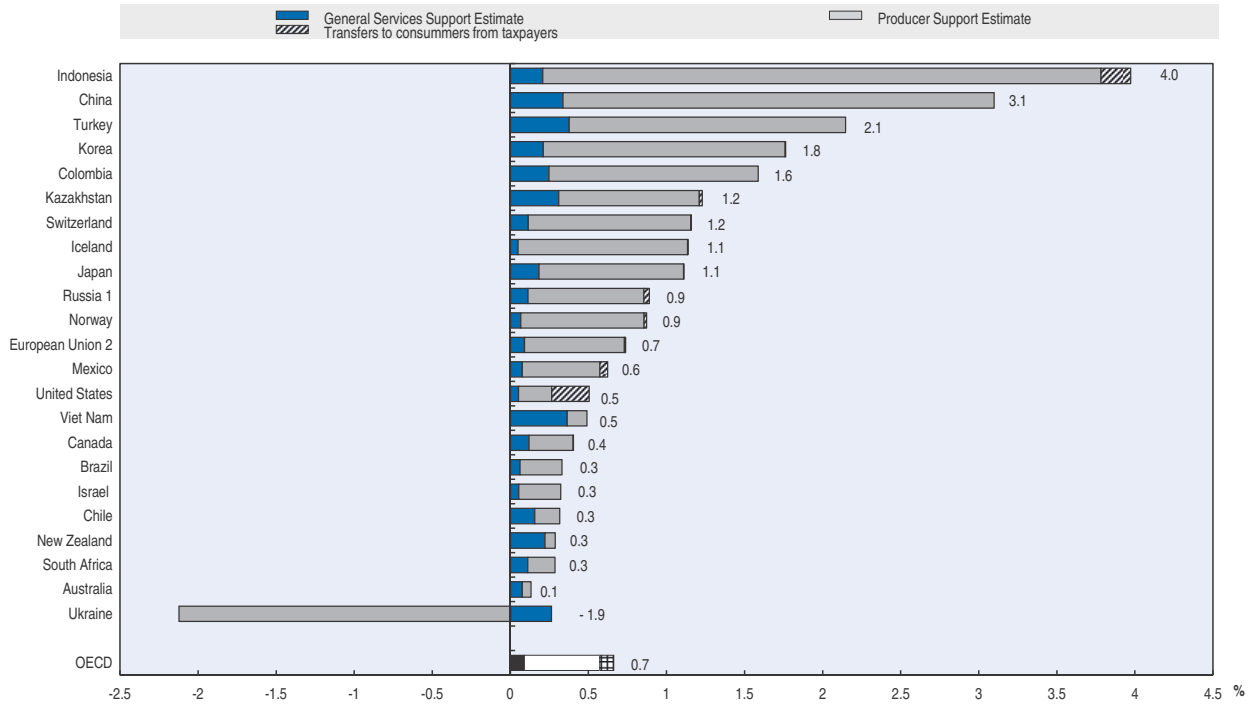
A large %TSE is generally associated with a particularly strong dominance of the PSE: as it will become clear in the discussion of the PSE below, this is due to the market price support that allows countries to support farmers with no or limited budgetary outlays, but with substantial costs borne by consumers. Budget-based support averages 0.5% of GDP in the countries covered in this report and generally ranges between 0.13% of GDP (Australia) and 0.9% of GDP (China). The exception is Ukraine, where the budgetary support (largely based on value added tax concessions) is worth about 2% of its total GDP.

Support to farmers shows opposite trends in OECD and emerging economies

On average, one-sixth of gross farm receipts in the countries covered in this report is due to policies supporting farmers: in 2013-15, the PSE for all countries covered reached USD 585 billion (EUR 469 billion), representing just over 17% of the gross farm receipts. In 2015, the percent Producer Support Estimate (%PSE) was more than 18%, its highest level since 2006. This latest change is mainly due to market developments including movements in world prices and exchange rates. In most countries, explicit policy changes have remained limited in 2015, and some of the reforms undertaken will show in the levels of support in the coming years only.

While the average %PSE of all countries covered in this report has followed a slightly falling trend over the past two decades, a more significant difference is recorded between the OECD countries and the emerging economies (Figure 1.5). For the OECD countries as a

Figure 1.4. **Composition of Total Support Estimate by country, 2013-15 (percentage of GDP)**



1. For Russia, 2013-15 is replaced by 2012-14.
2. EU27 for 2012-13 and EU28 from 2014 when available.

Source: OECD (2016a), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en*.

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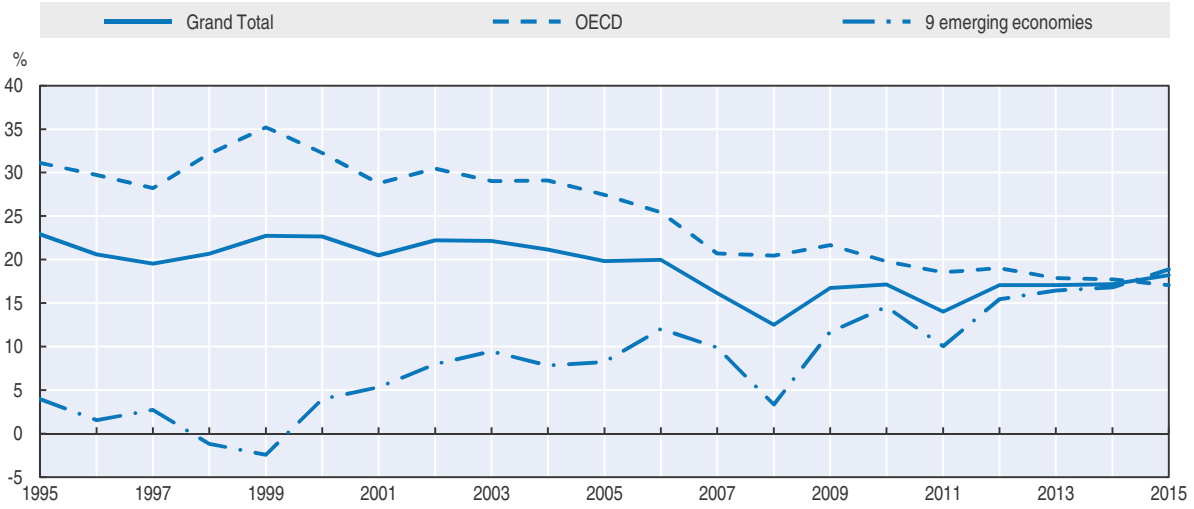
whole, average support levels have roughly halved since 1995-97. At the same time, mainly driven by China and Indonesia, the average support level in the emerging economies has increased from very low or even negative levels to average levels and, in 2015, even higher than the average of the OECD.

These trends of falling support to farmers within the OECD area and growing support in emerging economies are broadly shared across countries, but the levels of support continue to differ significantly (Figure 1.6). Six countries, Viet Nam, New Zealand, Australia, Brazil, South Africa and Chile, provide little support to farmers, with %PSEs around or below 3% in the most recent period. Ukraine continues to tax farmers, although the rate has declined from 9% to 6% of gross farm receipts since 1995-97. On the other hand, and despite some reductions over the past decades, Norway, Switzerland, Korea, Iceland and Japan continue to support their farmers at levels close to or above 50% of gross farm receipts. Within the middle group, Indonesia, China and, at lower levels, Kazakhstan and Brazil have increased their support levels, with Indonesia and China now exceeding the OECD average.

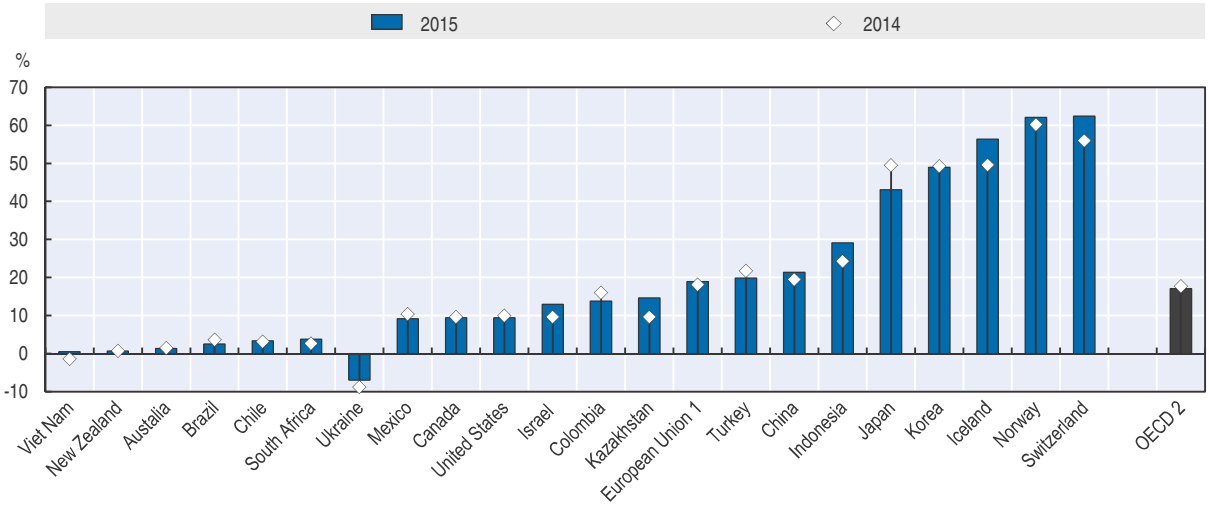
An indicator that is closely related to the %PSE, the Nominal Assistance Coefficient (NAC), provides further insights into support to farmers. The NAC shows the gross farm receipts with support relative to the value of gross farm receipts if they were generated at world market prices and without any budgetary support. The small support levels in Viet Nam and New Zealand translate to NACs less than 1.007, whereas higher levels of %PSE correspond to NACs significantly greater than one: for example, the %PSE of about 60% in

Figure 1.5. **Evolution of Producer Support Estimate, 1995 to 2015 (percentage of gross farm receipts)**



Notes: %PSE: Producer Support Estimate in percentage of gross farm receipts.
The OECD total does not include the non-OECD EU member states. The Czech Republic, Estonia, Hungary, Poland, the Slovak Republic and Slovenia are included in the OECD total for all years and in the EU from 2004.
The emerging economies are Brazil, China, Colombia, Indonesia, Kazakhstan, Russia, South Africa, Ukraine and Viet Nam. Viet Nam is included from 2000 onwards.
Source: OECD (2016a), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en.*
StatLink *http://dx.doi.org/10.1787/888933374283*

Figure 1.6. **Producer Support Estimate by country, 1995-97 and 2013-15 (percentage of gross farm receipts)**



Notes: Countries are ranked according to the absolute values of 2015 levels. Russia omitted as data for 2015 not available.
1. EU28 when available.
2. The OECD total does not include the non-OECD EU member states.
Source: OECD (2016a), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en.*
StatLink *http://dx.doi.org/10.1787/888933374290*

Norway for 2013-15 (Figure 1.6) corresponds to a NAC of around 2.5. This means that gross farm receipts in Norway are 2.5 times the level they would be without public support policies. In 2013-15, the gross farm receipts of OECD farmers were around 1.2 times higher on average than what they would have been without support, down from 1.4 times in 1995-97.

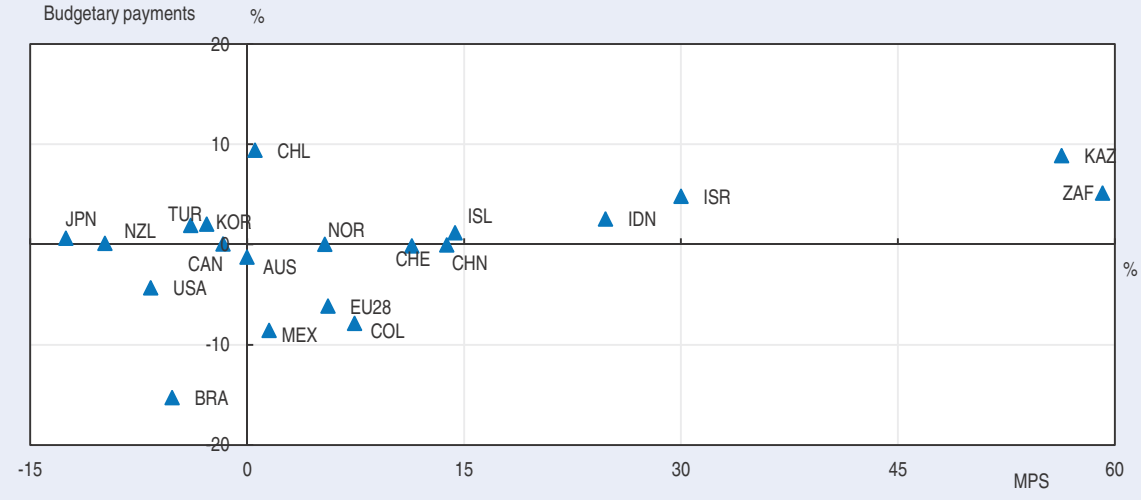
Looking at the most recent developments in the %PSE, countries' support levels have changed unevenly between 2014 and 2015 (Figure 1.6). Changes in most countries remained below two percentage points, but a number of larger changes were observed: Iceland and Switzerland have both increased their support to farmers by between 6 and 7 percentage points, while Kazakhstan's and Indonesia's %PSE increased by almost 5 percentage points. Support to farmers in Israel increased less strongly by 3 percentage points. On the other hand, the Japanese %PSE declined by more than 6 percentage points year-on-year, while in Colombia it declined by 2.3 percentage points.

Box 1.5 shows that in most countries, the observed increase or decrease in the PSE was essentially driven by the change in the gap between domestic and border prices. International prices for most agricultural commodities, denominated in US dollars, fell in 2015, but to quite different degrees. At the same time, the US dollar appreciated against other currencies, but again the magnitude of exchange rate movements differs widely. As a result, the net effect on border prices expressed in local currencies varied across both commodities and countries.

Box 1.5. **What drove changes in the monetary value of producer support in 2015?**

Figure 1.7 illustrates how different factors have contributed to the annual change in the value of support to farmers (expressed in local currencies) between 2014 and 2015. The figure maps the contribution of market price support (MPS, horizontal axis) and budgetary payments (BP, vertical axis) to the total PSE. Country points farther from the vertical axis indicate a higher contribution of changes in MPS to the change in PSE. Points farther from the horizontal axis indicate a larger contribution of budgetary payments. As an example, the point for Indonesia suggests that changes in the MPS have increased the country's PSE (in monetary value) by almost 25%, while changes in budgetary payments added another 2.5%, for a total change in the PSE between 2014 and 2015 by about 27% in Indonesian Rupiahs.

Figure 1.7. **Contribution of MPS and budgetary payments to the change in the Producer Support Estimate in 2015**



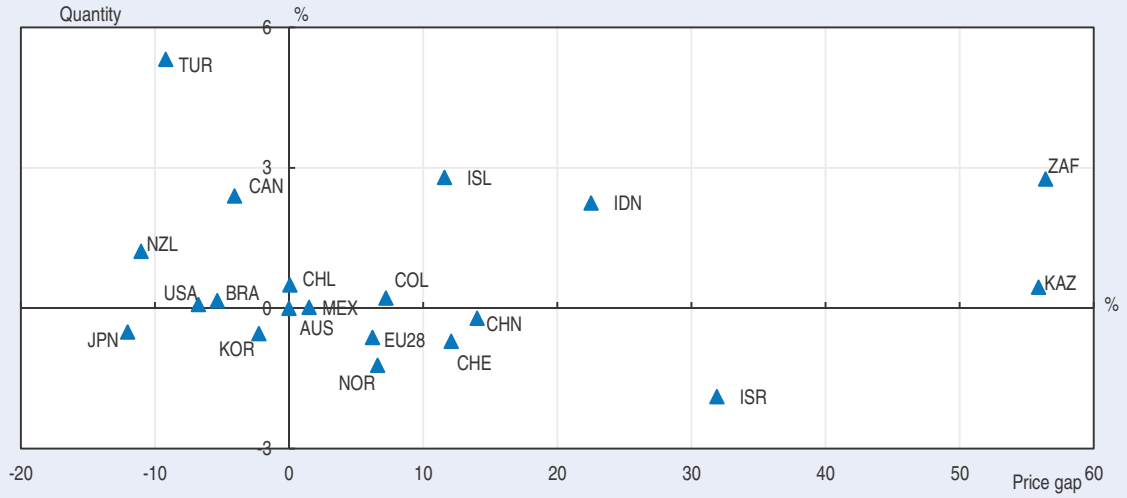
Note: Data for Russia are not available. Ukraine and Viet Nam not shown due to negative MPS data.
Source: OECD (2016a), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en*.

StatLink http://dx.doi.org/10.1787/888933374306

Box 1.5. **What drove changes in the monetary value of producer support in 2015?** *(cont.)*

Changes in the value of support to farmers in 2015 have been driven both by changes in market price support and by changes in budgetary payments, though the extent of these two factors has differed widely across countries. Both factors have contributed to increase the PSE in South Africa, Kazakhstan, Israel and Indonesia, although changes in the MPS were dominant. Conversely, both factors contributed to reduce the PSE in Brazil and the United States, with changes in budgetary payments dominant for Brazil. In both Colombia and the European Union, an increase in the MPS was largely offset by a decrease in budgetary payments, so that the total PSE remained almost unchanged. In Turkey and Korea the inverse changes contributed to only a small decline in total PSE. The increased total PSE was mainly driven by changes in the MPS in Iceland, China, Switzerland and Norway, whereas in Chile changes in budgetary payments were the key driver. In turn, the PSE decline in Japan and New Zealand[1] is driven by MPS changes, while in Mexico it is due to reduced budgetary payments. MPS in both Ukraine and Viet Nam remain negative, which is why these countries are not shown in the figure above. In both countries, this implicit taxation became smaller in 2015 and almost disappeared in Viet Nam. While in Viet Nam, budgetary payments increased and total support to farmers became positive in 2015, the reduced taxation through negative MPS in Ukraine was partly offset by lower budgetary support; still, total farm support became less negative.

Figure 1.8. **Contribution of price gaps and output quantities to the change in the MPS in 2015**



Note: Data for Russia are not available. Ukraine and Viet Nam not shown due to negative MPS data.
Source: OECD (2016a), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en*.

StatLink http://dx.doi.org/10.1787/888933374312

Figure 1.8 further disaggregates changes in the market price support into its two components: the gap between domestic and border prices (horizontal axis) and the quantities of production which receive the support (vertical axis). The figure shows that quantity changes have played a minor role for almost all countries, and that changes in the MPS are predominantly driven by changes in the price gaps. On average, these have increased for most countries due to lower commodity prices on international markets, but decreased for Japan, New Zealand, the United States, Brazil, Canada and Korea. Two main factors drove the changes in average price gaps for individual countries: first, as international markets for different commodities have developed differently, the countries' commodity mix matters. For instance, average import prices for rice, expressed in US dollars, for both Japan and Korea rose in 2015, thus reducing a major component in these countries' market price support; in contrast, world dairy prices fell significantly, raising Canada's largest part of MPS. Second, all national currencies of countries covered in this report have

Box 1.5. **What drove changes in the monetary value of producer support in 2015?** *(cont.)*

lost value against the US dollar in 2015 (see also Box 1.6), with changes in exchange rates ranging from 2% for the Chinese renminbi-yuan to more than 80% for the Ukrainian hryvnia. Most exchange rates have increased by between 12% and 25%. Given the price changes on international markets expressed in US dollars, a stronger devaluation of a country's currency against the US dollar results in higher border prices, which reduces any positive price gap. Together, these two factors generate a heterogeneous picture of changes in average price gaps.

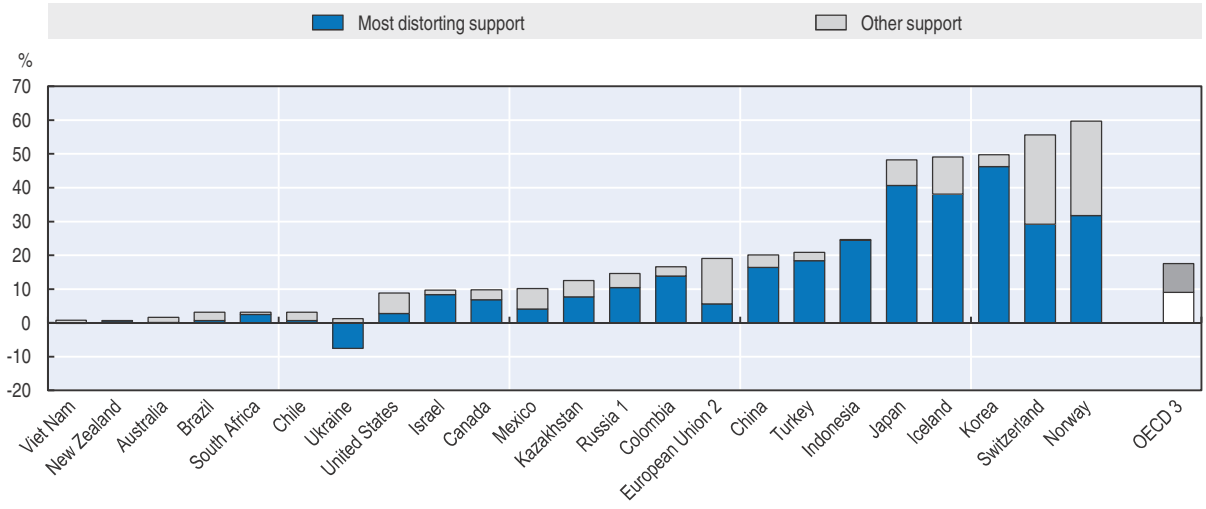
1. In New Zealand, price support is measured only for poultry and eggs and is due to non-tariff protection applied on SPS grounds.

The way in which countries provide support to farmers is arguably as important as the total level of that support. Governments have a large portfolio of measures at their disposal: they can support market prices by lifting them through, e.g. import tariffs or other barriers, or they can provide subsidies to reduce farmers' costs of inputs; they can give payments per hectare, per animal, or as a top-up to farmers' income. They may make payments conditional on farmers actually being engaged in production, or without such a condition. Payments can also be made conditional on specific production practices, for example to achieve environmental protection objectives. Support delivered in these various ways has different implications for agricultural production, trade and incomes. Furthermore, some ways are more suitable for targeting specific policy objectives or beneficiaries than others: for instance, support provided per hectare, per animal or based on farm incomes, particularly when linked to additional criteria, can be targeted to specific locations or groups of farms, and tailored to the problem at hand; in contrast, market price support does not allow policy makers to discriminate between beneficiaries. These considerations highlight the need for a more detailed analysis within the total PSE.

Looking at different forms of support from the perspective of potential market distortions, analysis has shown that market price support, payments based on output, and payments based on unconstrained variable input use have a significantly higher potential to distort agricultural production and trade than payments based on other criteria (OECD, 2001). As trade distortions spill over into world markets and, hence, other countries, this distinction is therefore important from an international perspective in addition to questions related to the appropriateness of measures chosen for achieving the public policy objectives. Figure 1.9 makes this distinction for the PSE in 2013-15. It shows that in most countries, significant shares of farmers' gross receipts are from measures with the highest distortive potential. On average for the countries covered in this report, this corresponds to more than two-thirds of the support provided to farmers. Leaving aside Ukraine and Viet Nam, where market price support was negative in 2013-15, and New Zealand, where the small positive MPS is entirely linked to non-tariff protection applied on sanitary and phytosanitary grounds, more than 80% of all farm support is provided in most distorting forms in Indonesia, Korea, Turkey, Israel, Japan, Colombia and China, with most other countries ranging between 50% and 80% of PSE. Other forms of support dominate in Mexico, the United States, Brazil, Chile and Australia – all of which support at levels below average – as well as the European Union, where the PSE is slightly higher than the OECD average.

Among the forms of support which have been found to be most distorting for production and trade, market price support remains the most important measure. In many

Figure 1.9. **Composition of Producer Support Estimate by country, 2013-15 (percentage of gross farm receipts)**



1. For Russia, 2013-15 is replaced by 2012-14.
2. EU27 for 2012-2013; and EU28 from 2014 when available.
3. The OECD total does not include the non-OECD EU member states.

Source: OECD (2016a), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en*.

StatLink http://dx.doi.org/10.1787/888933374321

OECD countries as well as in most emerging economies, MPS represents the largest part of the PSE, reaching more than 90% in Korea and Indonesia. As noted in the discussion of total support to the agricultural sector, market price support does not directly burden public budgets – indeed, importing countries often generate some of their public revenues from import tariffs on agricultural commodities. Instead, this type of support to farmers is paid by the consumers of these commodities.

Payments based on output play an important role only in Iceland (28% of the PSE in 2013-15). To a lesser extent they are also relevant in a few other countries including Turkey, Brazil, Kazakhstan, Colombia, Norway, the Russian Federation, Switzerland and Japan, where they represent between 4% and 9% of the PSE. Support for the use of variable inputs without attendant conditions on how inputs are used or on any other production practices is most important relative to the (small) total PSE in Viet Nam, but is more relevant in gross farm receipts in Ukraine, Mexico, the Russian Federation, Norway, Indonesia, Kazakhstan, Israel and the European Union.

Within the relatively less distorting forms of support, two main categories can be distinguished: First, payments based on other inputs or on variable inputs with constraints (e.g. related to environmental or animal welfare practices) represent important instruments in a number of countries. In Chile and Brazil, more than 70% of farm support is provided this way, while in Australia, Mexico and Kazakhstan between one-fourth and one-half of PSE falls into this category.

Most of the remaining support is provided through tax-financed payments based on area, animal numbers, farm receipts or farm income. Such payments are major instruments in the European Union (59% of all PSE), the United States (46%), Norway (44%), Australia (36%) and Switzerland (35%), but they are used by many other countries as well. The share of these payments in gross farm receipts has increased significantly in time, as

shown in Figure 1.10. In Norway and Switzerland, these payments now (2013-15) constitute 26% and 20% of gross farm receipts, up from 22% and 13% in 1995-97. In the European Union, Iceland and Japan they represented between 11% and 6% of gross farm receipts recently, implying some increase compared to 1995-97 as well. Such payments are predominantly an instrument used by OECD countries, however: in China and Kazakhstan, they represent a mere 2.4% and 1.4% of gross farm receipts in the most recent period, and less than 1% in other emerging economies.

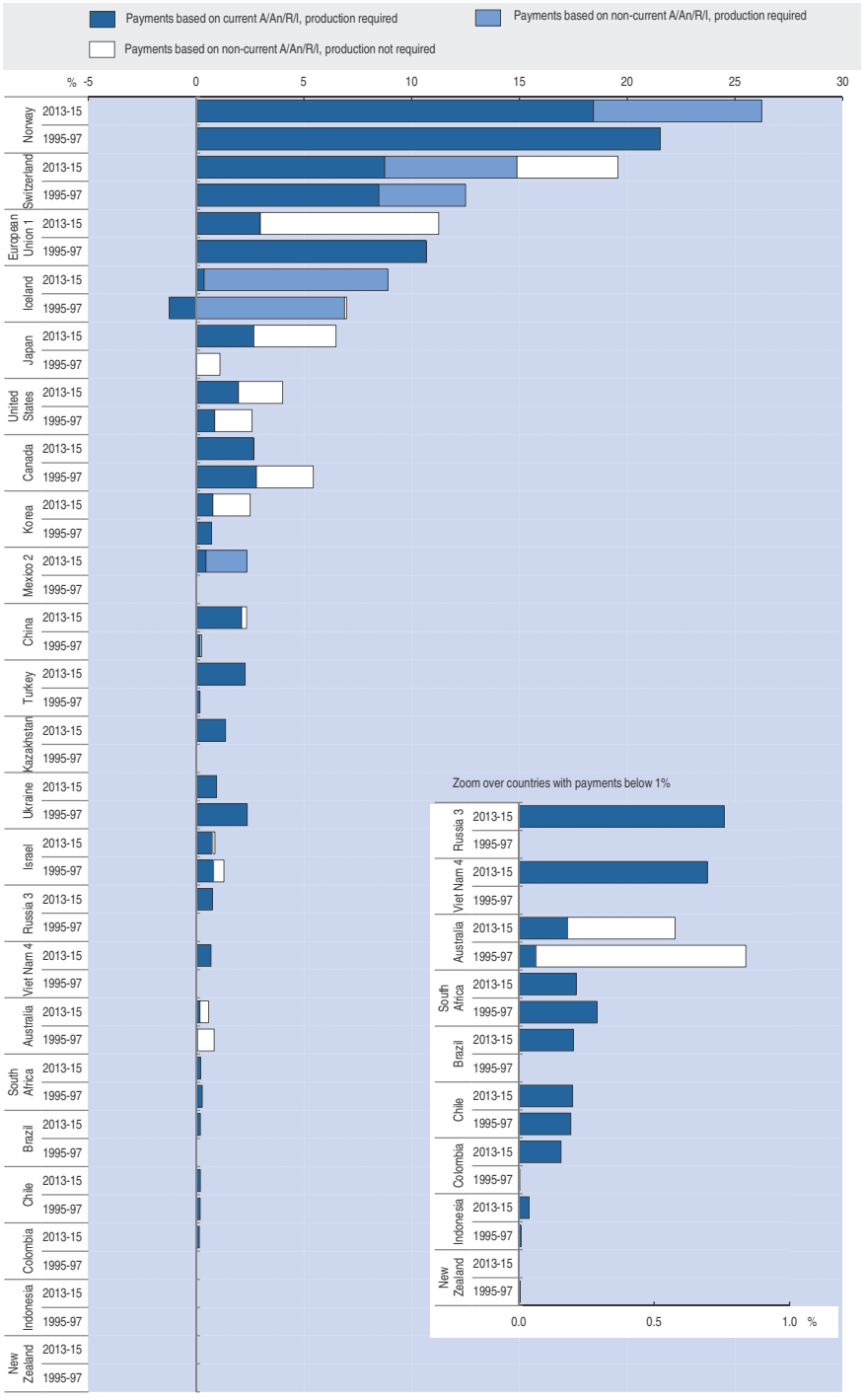
Figure 1.10 also shows a trend towards payments which are less coupled with production decisions: increasingly, payments are provided on the basis of historical criteria, partly even without the need for recipient farmers to produce. This trend is particularly visible in the European Union, where payments based on current area, animal numbers, farm receipts or incomes have been cut by almost two-thirds in favour of the Basic Payment Scheme based on non-current criteria without production requirements. Similar programmes also exist in Switzerland and Australia, among others.

The increasing shift towards providing less distorting forms of support to farmers means that effective producer prices are better aligned with those prevailing on international markets. The Nominal Protection Coefficient (NPC) represents the ratio of prices received by farmers (including payments per unit of output and net of any levies paid per unit of output) relative to world market prices. Figure 1.11 illustrates that, on average, prices received in 2013-15 by producers in Australia, Chile, Viet Nam, New Zealand and Brazil are closely aligned with international markets, with NPCs between 1.00 and 1.01. South Africa, Mexico and the United States also show NPCs that are below 1.03, implying that their prices are less than 3% above world market prices on average. In most other countries, producer prices are well above international levels. Ukraine is an exception: its NPC of 0.88 implies that average producer prices were 12% lower than their international benchmarks. Some of these averages hide significant variations within a country across commodities, however. In Viet Nam, for example, NPCs for individual commodities ranged from 0.51 for rubber to 1.62 for beef.

Figure 1.11 also shows that NPCs in most countries have fallen from high levels in 1995-97. This move towards alignment with world market prices was particularly pronounced in countries with high market price support in the past, including Korea, Switzerland, Norway, Iceland and Japan. Nonetheless, these countries continue to feature large gaps between domestic and international prices, with NPCs in the most recent period ranging between 1.61 in Switzerland to 1.91 in Korea. Other countries have made substantial progress in aligning prices as well, including Mexico, the European Union, Colombia, South Africa, Israel and Turkey. Conversely, both China and Indonesia have significantly increased their price support: while prices in those countries had been close to international price levels in 1995-97, China's NPC rose to 1.23 and that of Indonesia to 1.32 in the most recent period.

The movement in many countries away from price and output related support and towards other forms of transfers that are less tied to commodity production means that market signals become a more important guide for producers' decisions. It also improves farmers' flexibility in their production choice. Another consequence is that the degree to which support is linked to individual commodities has declined. The producer Single Commodity Transfers (SCT) measures this commodity-specific support relative to the

Figure 1.10. **Composition of payments based on area, animal numbers, receipts, and income by country, 1995-97 and 2013-15 (percentage of gross farm receipts)**



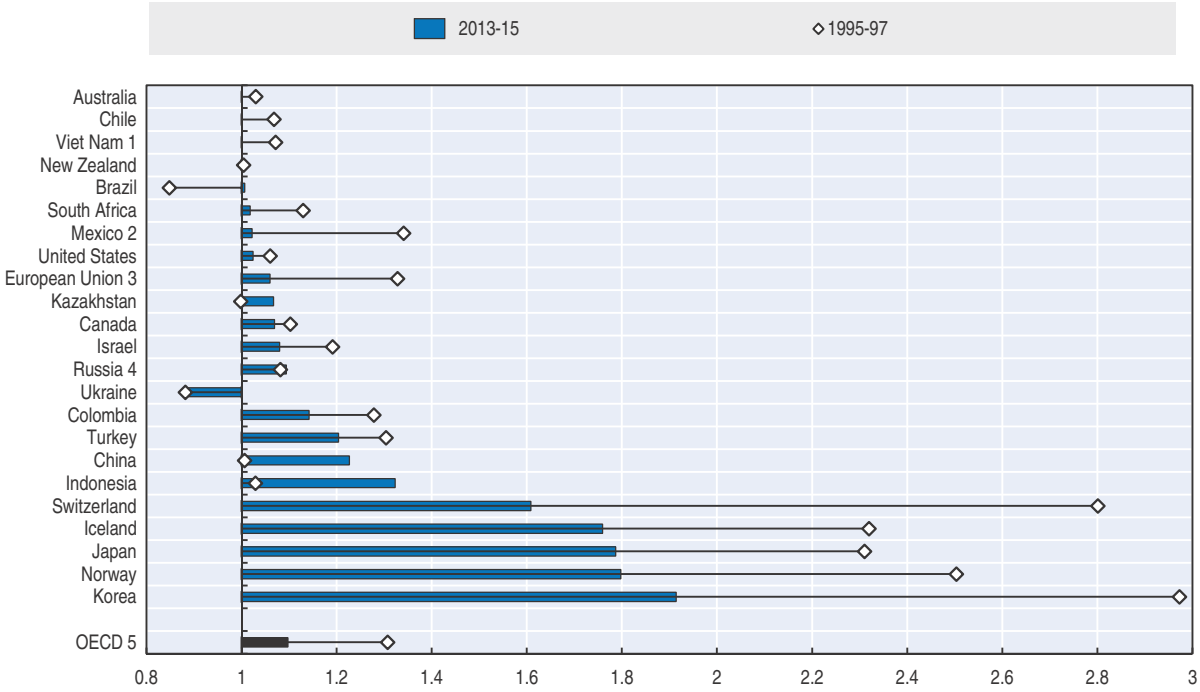
Note: The countries are ranked according to the 2013-15 levels. "A/An/R/I" refers to areas, animal numbers, receipts and incomes.

1. EU15 for 1995-97; EU27 for 2012-2013; and EU28 from 2014 when available.
2. For Mexico, 1995-97 is replaced by 1991-93.
3. For Russia, 2013-15 is replaced by 2012-14.
4. For Viet Nam, 1995-97 is replaced by 2000-02.

Source: OECD (2016a), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en*.

StatLink http://dx.doi.org/10.1787/888933374336

Figure 1.11. **Producer Nominal Protection Coefficient by country, 1995-97 and 2013-15**



Note: Countries are ranked according to the distance of 2013-15 NPC levels to a neutral NPC of 1.

1. For Viet Nam, 1995-97 is replaced by 2000-02.
2. For Mexico, 1995-97 is replaced by 1991-93.
3. EU15 for 1995-97; EU27 for 2012-13; and EU28 from 2014 when available.
4. For Russia, 2013-15 is replaced by 2012-14.
5. The OECD total does not include the non-OECD EU member states. The Czech Republic, Estonia, Hungary, Poland and the Slovak Republic are included in the OECD total for all years and in the EU from 2004. Slovenia is included in the OECD total from 1992 and in the EU from 2004.

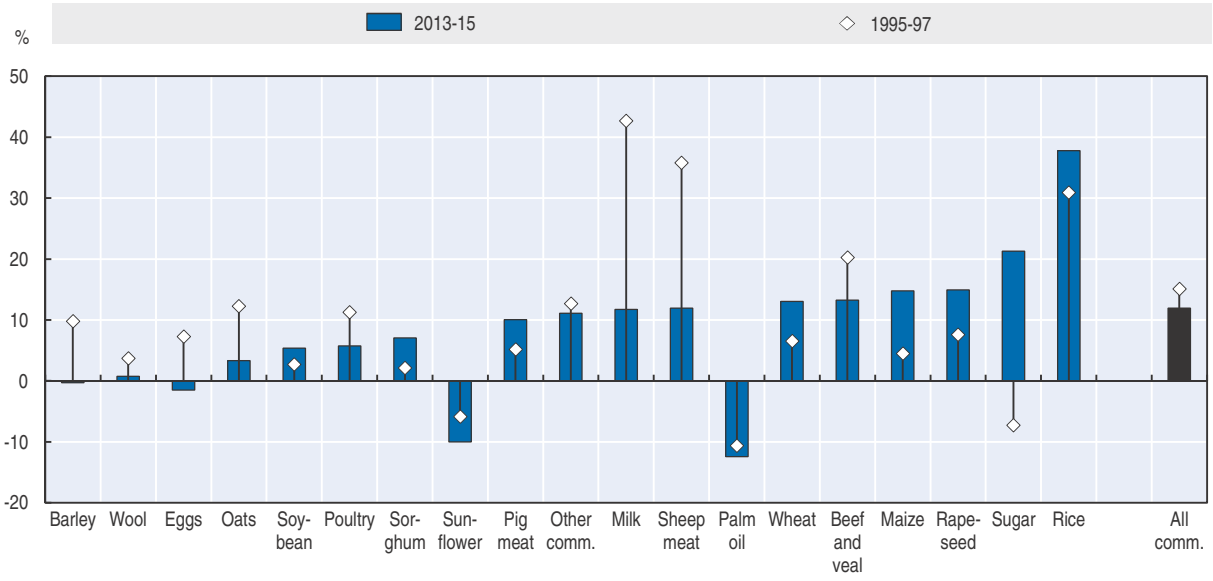
Source: OECD (2016a), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en*.

StatLink http://dx.doi.org/10.1787/888933374342

gross farm receipts for each commodity. On average, these have declined from 15% to 12% since the mid-1990s.

Just as importantly, the variability across commodities has declined, with some of the commodities that presented the highest SCTs in 1995-97, such as milk and sheep meat, displaying particularly strong reductions in average Single Commodity Transfers (Figure 1.12). On the other hand, commodity-specific support has increased for several commodities: most notably, the average SCT for sugar was negative in the mid-1990s, largely due to large negative MPS in Brazil; in the recent triennium, this SCT has become the second highest thanks to continued large commodity-specific support in both OECD and emerging economies. Average SCTs for maize and sorghum tripled from their mid-1990s levels. This increase mainly relates to a significant rise in the United States and Mexico, although other countries have also contributed to an increased SCT, particularly for maize. SCTs for wheat and soybeans doubled mainly driven by China, Kazakhstan (wheat), Japan (soybeans), Mexico and the United States (soybeans). Increasing commodity support in China, Colombia, Kazakhstan, Mexico, the Russian Federation and Ukraine was key for the strong rise in Single Commodity Transfers for pig meat producers. With the exception of rice and sugar, the average SCTs were all below 15% of gross commodity

Figure 1.12. **Single Commodity Transfers, all countries, 1995-97 and 2013-15 (percentage of gross receipts for each commodity)**



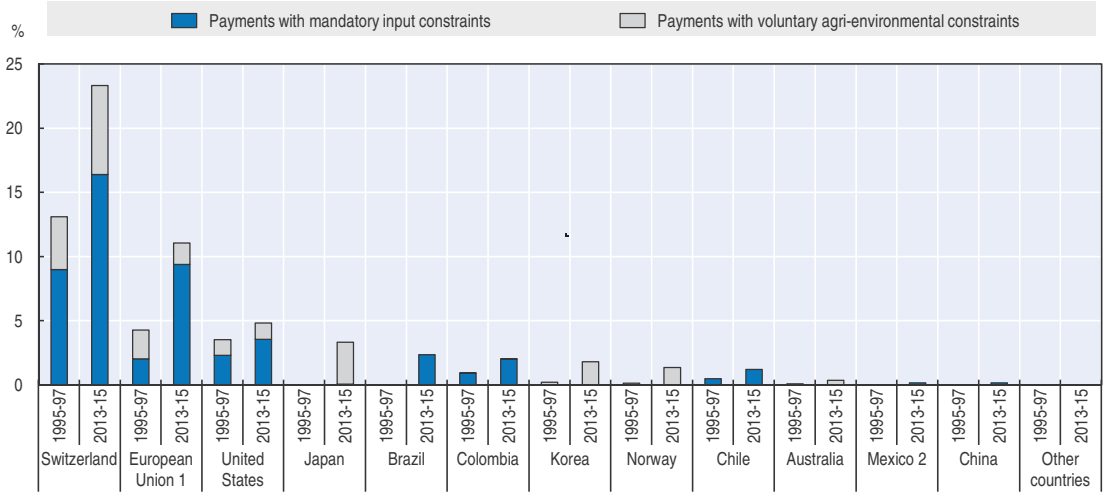
Note: Commodities are ranked according to the absolute value of % SCT in 2013-15.
Source: OECD (2016a), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en*.

StatLink http://dx.doi.org/10.1787/888933374358

receipts, while producers of sunflower seed (Kazakhstan, the Russian Federation and Ukraine) and palm oil (Indonesia) continue to be taxed. The reduced variability in commodity-specific support levels suggests that distortions in the allocation of resources within the agricultural sector have declined, even though this is partly because of increases in support provided to a subset of commodities.

Payments to farmers are sometimes used to promote specific production practices that aim to improve the environmental performance or animal welfare. As such, constraints on the use of inputs may be mandatory, or payments may be linked to agri-environmental constraints and programmes to which farmers can opt-in on a voluntary basis. Both the number of countries using such payments and the level of these payments have increased in the past decades for both of these approaches. Payments linked to mandatory production practices have become an increasingly important tool in Chile, the European Union, Switzerland and the United States. In these countries, up to half the total support to farmers is provided in the form of direct payments subject to "cross-compliance" conditions. Some support to fixed capital formation is also tied to investments in facilities for environmental and animal welfare friendly production. Figure 1.13 shows that this form of support has become more important for farmers as well: almost a sixth of gross farm receipts derive from such conditional payments in Switzerland, and close to a tenth in the European Union. Brazil has made all its credit and insurance programmes subject to complying with an elaborate zoning scheme which determines planting times based on weather, soil and crop cycle related criteria; today these programmes make up for the bulk of Brazil's support to farmers. Payments for voluntary agri-environmental programmes are increasingly used particularly in Switzerland, Japan, Korea and Norway. Other countries such as the European Union, the United States and Australia also apply such programmes to pursue environmental objectives.

Figure 1.13. **Support conditional on the adoption of specific production practices, 1995-97 and 2013-15 (percentage of gross farm receipts)**



Notes: Countries are ranked according to 2013-15 levels.
1. EU15 for 1995-97; EU27 for 2012-13 and EU28 from 2014 when available.
2. For Mexico, 1995-97 is replaced by 1991-93.

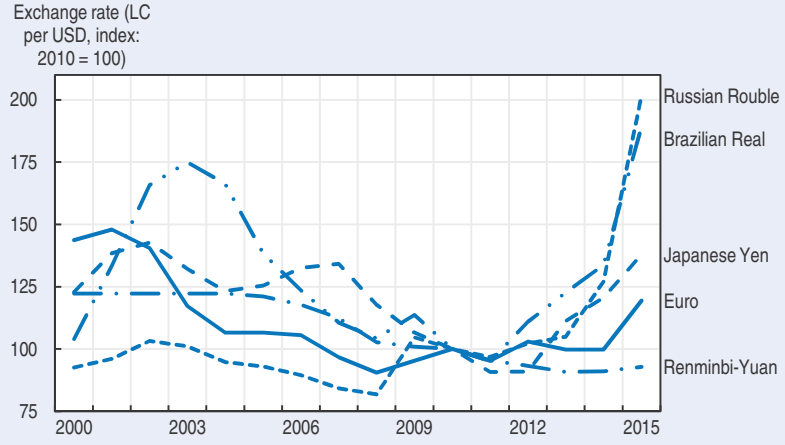
Source: OECD (2016a), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en*.

StatLink http://dx.doi.org/10.1787/888933374366

Box 1.6. **The role of exchange rates in measuring support to agriculture**

National measurement of support is expressed in national currencies. Still, these measures and in particular their aggregates across countries are influenced by exchange rate movements, which have been particularly significant in recent years and notably in 2015 (Figure 1.14). Exchange rates affect the calculation of agricultural support in two distinct ways: *first*, exchange rate movements can account for a significant portion of the change in MPS even when domestic policies and world prices do not change. For given world prices expressed in US dollars, a change in the external value of a country's currency alters the

Figure 1.14. **Exchange rate movements of selected currencies against the US dollar, 2000-15**



Source: OECD (2016a), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en*.

StatLink http://dx.doi.org/10.1787/888933374373

Box 1.6. **The role of exchange rates in measuring support to agriculture** *(cont.)*

reference prices for the agricultural products which are expressed in the local currency. As a consequence, a weaker local currency will, all other factors being equal, increase reference prices calculated for the given country. If due to price support domestic prices are not fully moving with those at the border, this will reduce the country's market price support and, hence, its overall support level. Strengthening local currencies will have the opposite effects on support levels. Box 1.5 discusses how different factors, including changes in exchange rates, have affected countries' level of support to producers.

Second, changes in exchange rates affect changes in monetary values such as the total PSE or the Total Support Estimate when expressed in a common currency. All other things being equal, a declining (increasing) external value of a local currency will result in a falling (rising) support estimate when expressed in the foreign currency, such as the US dollar or the Euro. While this matters for international comparisons, it is particularly important for aggregates across countries, such as OECD totals or totals for all countries analysed in this report.

The strong movements in exchange rates in 2015 have made this general topic more relevant for this year's calculations: as visible in Figure 1.14, the US dollar has seen a strong appreciation against virtually all other currencies, thus intensifying movements that began earlier this decade. As for other monetary aggregates such as global GDP,[1] this has direct implications for the aggregate PSE calculated in this report.[2] As the most commonly quoted numbers are those expressed in US dollars, the data suggest that total PSE in the OECD has fallen by 14% between 2014 and 2015, while that in all countries analysed in this report has fallen 3%. In contrast, when expressed in Euros, total support for these two aggregates has increased by 2% and 16% in the same period. Expressed in, say, Brazilian Reals or Russian Roubles, support increased more strongly still (Table 1.2). Similar statements can be made for the change in Total Support Estimates.

Table 1.2. **Development in total PSE in selected currencies, 2014 to 2015**

Per cent

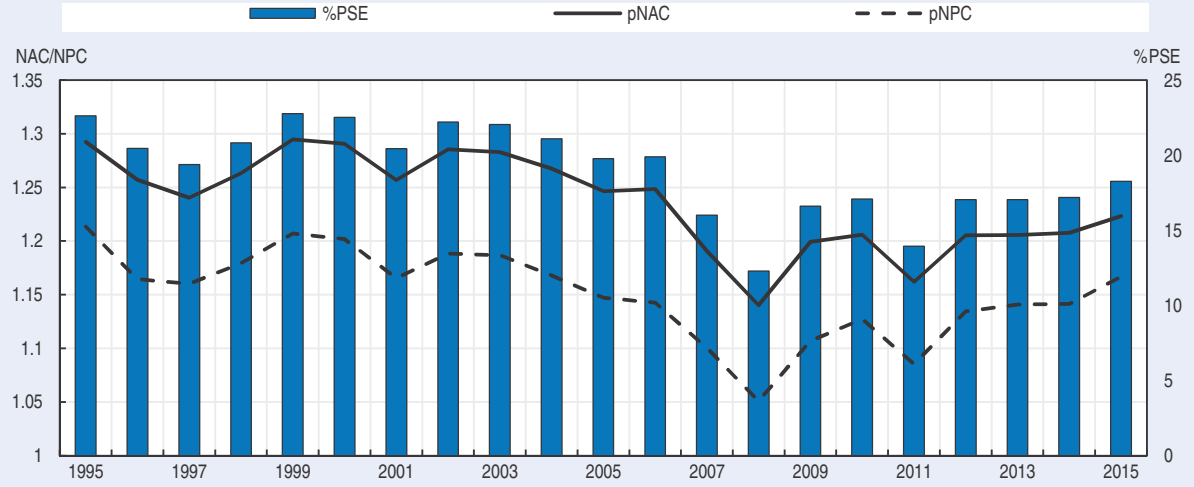
	OECD		All countries	
	PSE	TSE	PSE	TSE
USD	-14	-17	-3	-7
EUR	2	-1	16	11
BRL	21	18	37	32
RUB	62	58	83	77

Note: "All countries" refers to the countries covered in this report.
Source: OECD (2016a), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en*.
StatLink *http://dx.doi.org/10.1787/888933375799*

For a long time, the OECD has therefore produced comparative tables showing developments in aggregate estimates of support in both US dollars and euros. More importantly, however, the problem of such seemingly contradictive aggregate estimates is overcome by using relative indicators: the %PSE, representing the PSE as percentage of gross farm receipts, and the %TSE (TSE in percent of GDP) do not suffer from such ambiguity as both the numerators (total PSE or TSE) and the denominators (gross farm receipts or GDP) are affected by exchange rate movements in exactly the same way. These indicators, as well as other relative ones such as the Nominal Protection Coefficient or the Nominal Assistance Coefficient, are therefore robust with respect to exchange rate movement. In addition, they properly account for scale effects where total support increases with the size of the sector or the economy. Figure 1.15shows that in 2015, these relative support indicators have continued to increase for the total of all countries covered in this report after having seen their lowest point in 2011.

Box 1.6. **The role of exchange rates in measuring support to agriculture** *(cont.)*

Figure 1.15. **Evolution of relative support indicators for the aggregate of all countries covered in this report, 1995 to 2015**



Source: OECD (2016a), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en*.

StatLink http://dx.doi.org/10.1787/888933374388

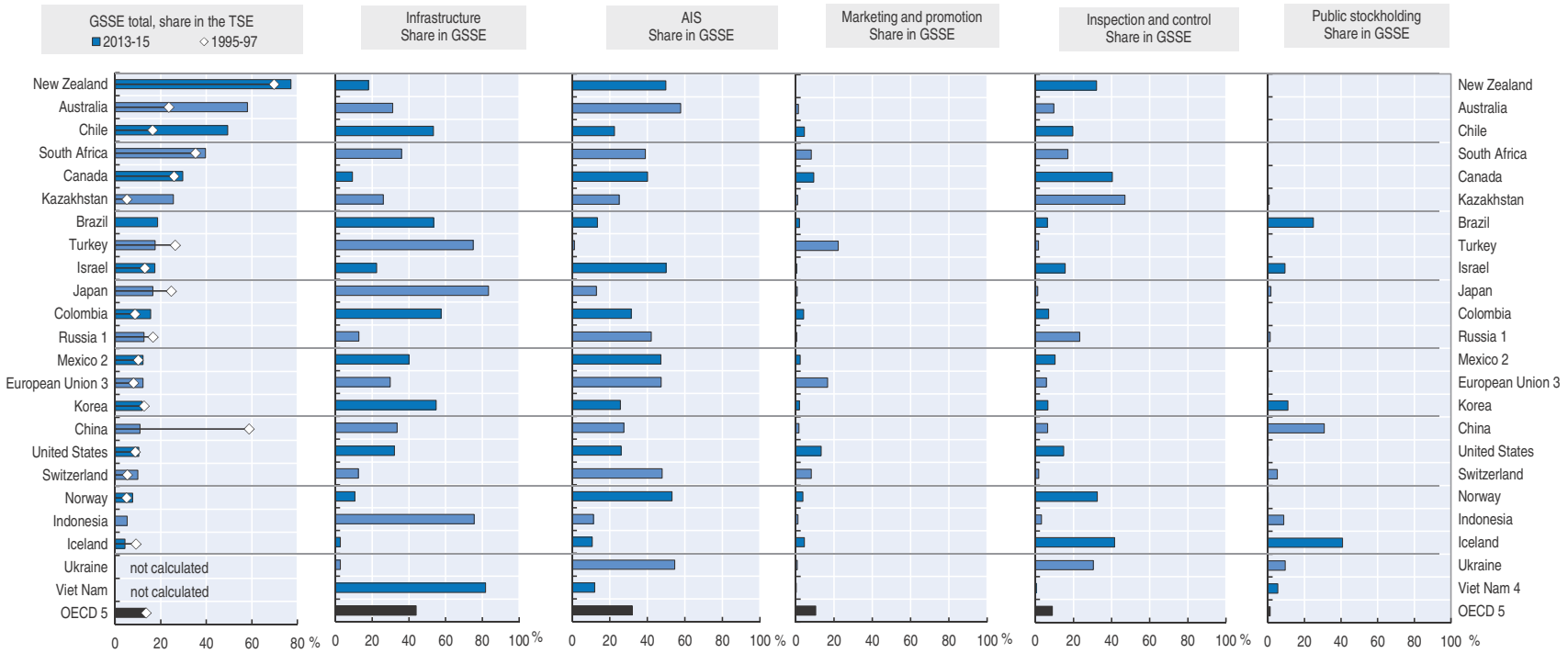
1. Obstfeld et al. (2015), for a brief discussion, *www.voxeu.org/article/choice-numeraire-matters-when-calculating-world-gdp-growth*.
2. This problem has been first analysed by Butault (2003).

Support to general services varies significantly across countries in both size and priorities

The second key element of support, in addition to support provided to producers individually (PSE), comprises the public financing of various services to the agricultural sector. This support is measured by the General Services Support Estimate (GSSE) and covers a range of different subject areas. As it was discussed above, the GSSE accounts for a much smaller share of total support to agriculture than the PSE, averaging 12% of the TSE in 2013-15 for all countries covered in this report. While this is 4 percentage points lower than in the mid-1990s, the relative decline is almost entirely due to the huge increase in China's PSE. As shown in the first panel of Figure 1.16, however, these shares vary significantly across countries: New Zealand and Australia now provide the majority of support by financing sector-wide services, while these play a minor role within total support in most other countries. The panel also shows that the relative importance of support for general services has grown in a number of countries, in particular Australia, Chile and Kazakhstan. At the same time, the share of GSSE in total support has declined significantly in China from almost 60% in the mid-1990s to 11% in the most recent period, again due to the strong increase in the PSE.

The GSSE includes a number of very different areas governments can invest in, and countries differ in terms of the emphasis they place on the various elements, as shown in the other panels of Figure 1.16. Investments into agricultural infrastructure dominate in a number of countries: more than half the GSSE is devoted to infrastructure in Japan, Viet Nam, Indonesia, Turkey, Colombia, Korea, Brazil and Chile – often to improve irrigation

Figure 1.16. **General Services Support Estimate: share in TSE and composition**



Notes: Countries are ranked according to 2013-15 levels. The residual "miscellaneous" category is not shown. AIS = Agricultural Innovation System.

1. For Russia, 2013-15 is replaced by 2012-14.
2. For Mexico, 1995-97 is replaced by 1991-93.
3. EU15 for 1995-97; EU27 for 2012-13; and EU28 from 2014 when available.
4. For Viet Nam, 1995-97 is replaced by 2000-02.
5. The OECD total does not include the non-OECD EU member states. The Czech Republic, Estonia, Hungary, Poland and the Slovak Republic are included in the OECD total for all years and in the EU from 2004. Slovenia is included in the OECD total from 1992 and in the EU from 2004.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD (2016a), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en*.

StatLink http://dx.doi.org/10.1787/888933374396

coverage and quality. The agriculture innovation system (AIS) is most important in Australia, Ukraine, Norway, Israel, and plays a key role in many other countries as well. For the OECD total, infrastructure and the AIS together accounted for more than three-quarters of all expenditures for general services.

While the other categories of GSSE, namely inspection and control and public stockholding, are less important on average for the countries covered in this report, they are important in a number of individual ones. This is particularly true for expenditures for inspection and control systems, with GSSE shares of between 30% and 50% in Kazakhstan, Iceland, Canada, Norway, New Zealand and Ukraine – although in Ukraine overall expenditures for general services have declined significantly since 2012. Expenditures related to public stockholding were absent in many countries, but represented a significant part of the GSSE in Iceland (41%), China (31%) and Brazil (25%).

Consumers in most countries continue to pay for agricultural support

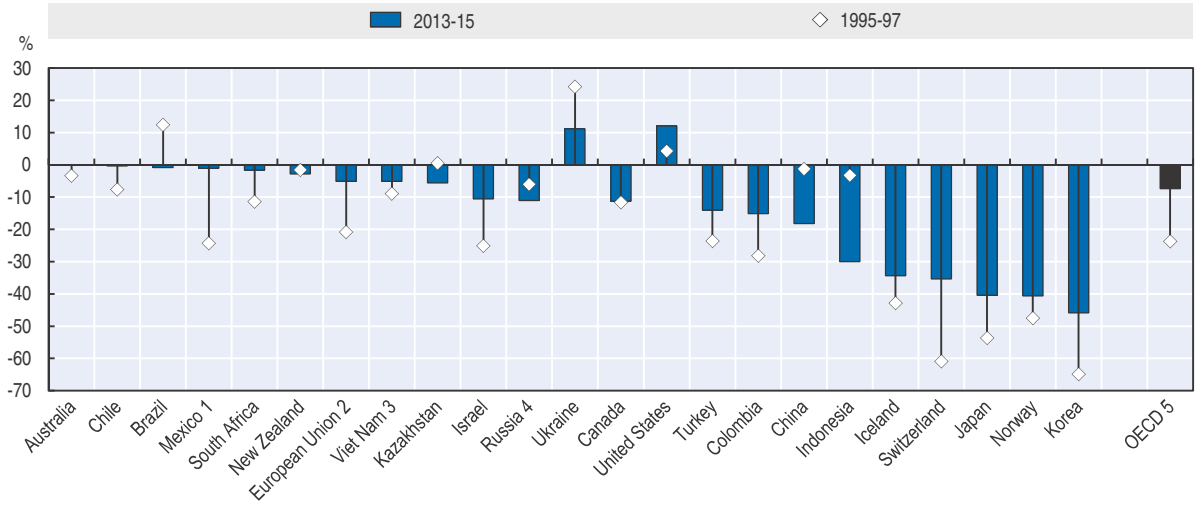
Agricultural policies also affect users of agricultural commodities, i.e. food processors and final consumers. As noted above, market prices in many countries are above world price levels, implying that domestic users face higher expenditures for agricultural products. In some cases, other policies aim to compensate them for some or all of these additional costs, for instance through budgetary subsidies to food processors or by some forms of domestic food aid programmes.

The Consumer Support Estimate (%CSE) expresses the monetary value of the transfers to consumers as a percent of consumption expenditures (measured at the farm gate). When domestic prices are higher than those on the world market, they contribute negatively to the %CSE, indicating an implicit tax imposed on consumers.

As illustrated by Figure 1.17, consumers in virtually all countries are affected by agricultural policies. In most cases, these policies tax them, although to very different degrees: the negative %CSE ranges from less than one percent in Australia, Chile and Brazil to more than 40% in Japan, Norway and Korea. In all cases, this negative CSE is due to market price support, implying transfers from the consumer to domestic producers and, for importing countries, to taxpayers. As market price support was reduced, the implicit taxation of consumers has declined significantly in most countries from their levels during the mid-1990s. Indonesia, China, and to a lesser extent the Russian Federation are noticeable exceptions: consumers in these countries are increasingly taxed. This is worrying for two reasons: the negative %CSE in these countries implies an important redistribution, which burdens poor consumers relatively more than rich ones, as the share of food expenditures tends to fall with rising incomes. It also hurts the food processing industry by making it less competitive on international markets. In addition, particularly in developing and emerging economies, small agricultural producers may be net buyers of agricultural products, meaning that support may be ineffective in helping those most in need. At the same time, such support often represents significant distortions to markets and economies.

In contrast to other countries, the United States and Ukraine provide positive net-support to their consumers, with %CSEs of 12% and 11% in 2013-15, respectively. They do so, however, in very different ways: in Ukraine, domestic market prices are, on average, well below those on international markets, benefiting consumers at the expense of agricultural producers. As market prices became more aligned with world market prices over the last decades, the level of implicit support to consumers declined as well, cutting

Figure 1.17. **Consumer Support Estimate by country, 1995-97 and 2013-15 (percentage of consumption expenditure at farm gate)**



Notes: Countries are ranked according to absolute values of the 2013-15 levels. A negative percentage CSE is an implicit tax on consumption.

1. For Mexico, 1995-97 is replaced by 1991-93
2. EU15 for 1995-97; EU27 for 2012-13; and EU28 from 2014 when available.
3. For Viet Nam, 1995-97 is replaced by 2000-02.
4. For Russia, 2013-15 is replaced by 2012-14.
5. The OECD total does not include the non-OECD EU member states. The Czech Republic, Estonia, Hungary, Poland and the Slovak Republic are included in the OECD total for all years and in the EU from 2004. Slovenia is included in the OECD total from 1992 and in the EU from 2004.

Source: OECD (2016b), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en*.

StatLink http://dx.doi.org/10.1787/888933374403

the %CSE by half since the mid-1990s. In contrast, the United States employs significant nutrition programmes for specific groups of the population, resulting in a positive CSE in spite of the somewhat higher domestic prices. The %CSE has almost tripled from its level in 1995-97, as a result of declining market price support and the expansion of the nutrition programmes, making it the highest consumer support among the countries covered in this report, whether in value terms, relative to consumer expenditures or as a share of the Total Support Estimate.

Assessing support and reforms

In April 2016, the Ministers and Representatives of 46 countries, including all OECD member countries, declared that "[…] while policies for food and agriculture have begun to change, international and domestic policy settings are not sufficiently aligned with emerging needs" (OECD, 2016b, paragraph 3). The findings of this report underpin this statement.

Together, the countries covered in this report spent an annual average of USD 585 billion (EUR 469 billion) to support their agricultural producers in the years 2013-15, and an additional USD 87 billion (EUR 69 billion) on general services supporting the sector. These transfers represent a significant burden to tax payers and consumers. A significant share of the transfers is spent on measures not sufficiently adapted to achieve stated and shared objectives related to food and nutrition security, well-functioning markets, sustainable productivity growth and resource use, mitigation of and

adaptation to climate change, resilience to different risks, the provision of public goods and ecosystem services, and inclusive growth and development.

The way in which countries provide support to farmers is arguably as important as the total level of that support. About two-thirds of all farm support continues to be provided by maintaining higher prices on domestic markets compared to those on international markets. While market price support (MPS) puts a smaller burden on public budgets, as most of the costs are borne by consumers transfer, it is one of the most trade and market distorting forms. Specifically, MPS instruments reduce the transmission of market signals to producers and hence diminishes the degree to which farmers can respond to market requirements. It also reduces incentives to improve efficiency in agricultural production. In addition, a number of countries rely on MPS to increase domestic production and achieve food self-sufficiency targets. Yet higher market prices represent a heavy burden for poor consumers who tend to spend a higher share of their available income on food, calling for food assistance in some countries. Moreover, by increasing domestic prices MPS also adds to the costs of domestic food processors, reducing the potential for down-stream economic activities and employment, including in rural areas. By stimulating agricultural production MPS may lead to negative externalities without necessarily providing the desired public goods (OECD, 2008). Finally, market price support is untargeted and does not necessarily reach intended beneficiaries, primarily benefiting larger producers.

MPS also accounts for the largest share of transfers to single commodities (SCT). The variability in SCT across commodities has declined since the mid-1990s: this development helps to reduce inefficiencies in resource allocation within the agricultural sectors of countries. However, to the extent that the reduction in SCT variability is partly due to higher support for a subset of commodities, there is still room for improvement. While it technically increases self-sufficiency rates, it is costly for consumers which may hurt food security of the poorest parts of the population.

- Market price support should therefore be reduced and eventually eliminated. This includes negative market price support still prevalent in a number of markets. Market price support is generally a non-transparent and untargeted measure inconsistent with a well-functioning multilateral trade system. If countries want to re-instrument and implement other, more appropriate measures, fiscal space must be available to do that.

Other instruments, such as payments per unit of output or based on the use of variable inputs without any restrictions on their use, play a much smaller role overall but remain important in certain markets. Such instruments to some degree can be better targeted to specific policy objectives, but their potential to distort markets and trade is similar to that of market price support, and their cost-effectiveness in providing income support to needy farm households is rather low as a significant share of the outlays for these measures tends to leak away outside the farm sector. In addition, support for specific production inputs increases the risk of their over- or misuse, with potentially harmful consequences for farmers' health and the environment.

- In most cases, payments per unit of output and input subsidies should therefore also be reduced. They represent an inefficient use of government budgets, and generally fail to appropriately target specific policy outcomes.

Support for on-farm investments and services can be important where market failures prevent an efficient allocation of resources. As such, it should focus on fostering innovation within the farm sector, helping to improve its environmental sustainability or to alleviate other market imperfections.

Direct payments to farmers are increasingly used to support farm incomes. Farm income support, however, is not generally well targeted to those farm households in need and often privileges large farms if linked to historical production data. If well-targeted and tailored to the problem at hand, direct payments can present an effective tool for achieving specific policy objectives. Direct payments may also play an important transitory role in the process of reforming policies.

- To improve the efficiency of direct payments, countries should make further efforts to define specific policy objectives, such as improvement of environmental performance or supporting farm incomes, to identify the beneficiaries of such support, and to target policy measures accordingly. Tailoring the payments requires information on both the size of the problem at hand and the marginal costs for reducing it. Such information may not always be readily available or accessible economically. However, both appropriate proxies (often already applied for objectives related to natural resources) and better data availability that comes with modern information technology should help to overcome such shortcomings.

A number of countries are using specific measures to stabilise revenues or incomes. Risk management tools are important in a world that is expected to become more volatile and subject to additional shocks, due to climate change, market related and other uncertainties. OECD work has proposed a three-tier risk management system (Box 1.7). It distinguishes normal business risks (to be borne and managed by farmers) from larger risks requiring market solutions (such as insurance systems and futures markets) and catastrophic risks requiring public engagement. Current support systems for risk management tools involve a large range of insurance and stabilisation schemes as well as *ad hoc* assistance in response to extreme climate events, blurring the borders between the normal business risks, medium-size marketable risks and those of catastrophic nature, and reducing incentives for on-farm or market-based risk management options.

Box 1.7. **Agricultural risk management: A holistic approach**

The agricultural sector has always been exposed to price volatility – indeed, swings in product and input prices tend to be larger in agriculture than in other sectors. This is partly due to the reliance of production on natural conditions and weather influences, and partly to the specificities of agricultural commodity markets that can lead to sharp reactions by prices to changes in supply. In general, price spikes are more likely than troughs, as many agricultural products can be stored when prices are low and sold later.

Disease outbreaks and adverse weather events, such as floods and droughts, also contribute to supply volatility and can negatively impact producer incomes, markets, trade and consumers. These are expected to become more frequent as a result of climate change.

Risks in agriculture are interconnected, sometimes compounding and sometimes *offsetting* each other. If the prices of inputs (such as fertiliser) and outputs (such as agricultural commodities) move in the same direction, for example, the impact on net returns is reduced. Production risks can be partially offset by price movements: when crop yields are low but prices are high, revenues are more stable. It is the net risk effect on income that matters.

OECD analysis of risk management in agriculture has identified three layers of risks which require different responses:

- *Normal* variations in production, prices and weather do not require any specific policy response. Such frequent but not too damaging risks can be directly managed by farmers as part of normal business strategy,

Box 1.7. **Agricultural risk management: A holistic approach** *(cont.)*

via the diversification of production or the use of production technologies which make yields less variable. Income-smoothing through tax instruments for businesses is also part of normal risk management.

- At the other extreme, infrequent but *catastrophic* events with high damage and that affect many or all farmers over a wide area will usually be beyond farmers' or markets' capacity to cope. A severe and widespread drought is one example. The outbreak and spread of a highly contagious and damaging disease is another. Governments may need to intervene in such cases.
- In between the normal and the catastrophic risk layers lies a *marketable* risk layer that can be handled through market tools, such as insurance and futures markets, or through co-operative arrangements between farmers. Examples of marketable risks include hail damage and some variations in market prices.

Risk management tools are essential to enable farmers to anticipate, avoid and react to shocks. A broad approach is needed that recognises how different sources of risk, different strategies and different actors – both public and private – interact. Governments should adopt a holistic approach to risk management, assessing all risks and their relationships to each other, and avoiding focusing on a single source of risk, such as prices. Increased co-operation and communication with stakeholders – farmers and veterinarians included – is essential for better policy design in order to understand the capacity of farmers to manage risk and the additional sources needed to improve responses. Governments can also play a primary role in facilitating good "start-up" conditions, by providing information, regulation and training for the development of market-based risk management tools such as futures, insurance and marketing contracts. The OECD has developed three guiding principles of good design of risk management policies in agriculture:

- Agricultural risk management policies should focus on catastrophic risks that are rare but cause significant damage to many farmers at the same time. The procedures, responsibilities and limits of the policy response – including explicit triggering criteria and types and levels of assistance – should be defined in advance of the event.
- Policies should not provide support for the management of "normal" risk. This should be the preserve of farmers themselves. Minimum intervention prices or payments that are triggered when prices or returns are low may actually be counter-productive, as they tend to induce more risky farming practices.

Policies should also avoid crowding out the development of private insurance markets by subsidised insurance. Subsidising insurance can be costly for governments and has not always deterred pressure for additional *ad hoc* governmental assistance after a catastrophic event.

Source: OECD (2011), *Managing Risk in Agriculture: Policy Assessment and Design*, *http://dx.doi.org/10.1787/9789264116146-en*.

- Countries should clarify and streamline their risk management policies. The boundaries between normal business risks, risks that can be handled through market-based tools and catastrophic risks need to be defined in a transparent and operational manner. Government support should focus on managing catastrophic risks for which private solutions cannot be developed. Risk management policies can also encourage the development of markets for intermediate risks such as insurance and futures markets or through co-operative arrangements between farmers, but the policy should be carefully designed to avoid crowding out farm-based and market solutions. As management of risk and uncertainty requires the efficient use of scarce information, governments should play a proactive role in providing information on climate and market risks for the farmers and private sectors to facilitate the development of risk management strategies and tools.

Significant resources are used to invest in key services to assist the agricultural sector. Such investments particularly include improvements to the sector-specific infrastructure and expenditures related to the agricultural knowledge and information system. They have

the potential to address key long-term requirements for the agricultural sector, including improving its productivity and sustainability, in light of an uncertain future and the challenges laying ahead (OECD, 2016c). However, these investments remain limited compared to support to farmers individually.

- Countries should re-direct an increasing share of their budgetary expenditures on agricultural policies to enhance their efforts in supporting general services for the agricultural sector. In particular, well-functioning agricultural innovation systems, appropriate biosecurity efforts, approaches to prevent antimicrobial resistance, and investments in adapted physical and other infrastructure are required to make their agricultural sectors better prepared to respond to future challenges and opportunities: taking advantage of increasing demand for diverse and high-quality food, being more responsive to the uncertainties laying ahead, increasing resilience relative to weather, market or other shocks, and enhancing the environmental performance.

Notes

1. China, Colombia, Iceland, Indonesia, Israel, Japan, Kazakhstan, Korea, Norway, the Russian Federation, Switzerland and Turkey provide market price support. Indonesia and Mexico subsidise energy and fertilisers. Brazil, Colombia, Kazakhstan and the Russian Federation provide concessional credit to stimulate agricultural investments.
2. The Total Support Estimate (TSE) is the broadest indicator of support. It combines transfers to agricultural producers individually (measured by the Producer Support Estimate, the PSE), policy expenditures that have primary agriculture as the main beneficiary, but that do not go to individual farmers (measured by the General Services Estimate, the GSSE) and budgetary support to consumers of agricultural commodities (the Consumer Support Estimate, CSE, net of the market price element that is already accounted for in the PSE).

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Chapter 2

Country snapshots

This chapter contains a snapshot view of agricultural policy developments in the countries covered in this report. A more comprehensive discussion is provided in the country chapters published online (http://dx.doi.org/10.1787/agr_pol-2016-en).

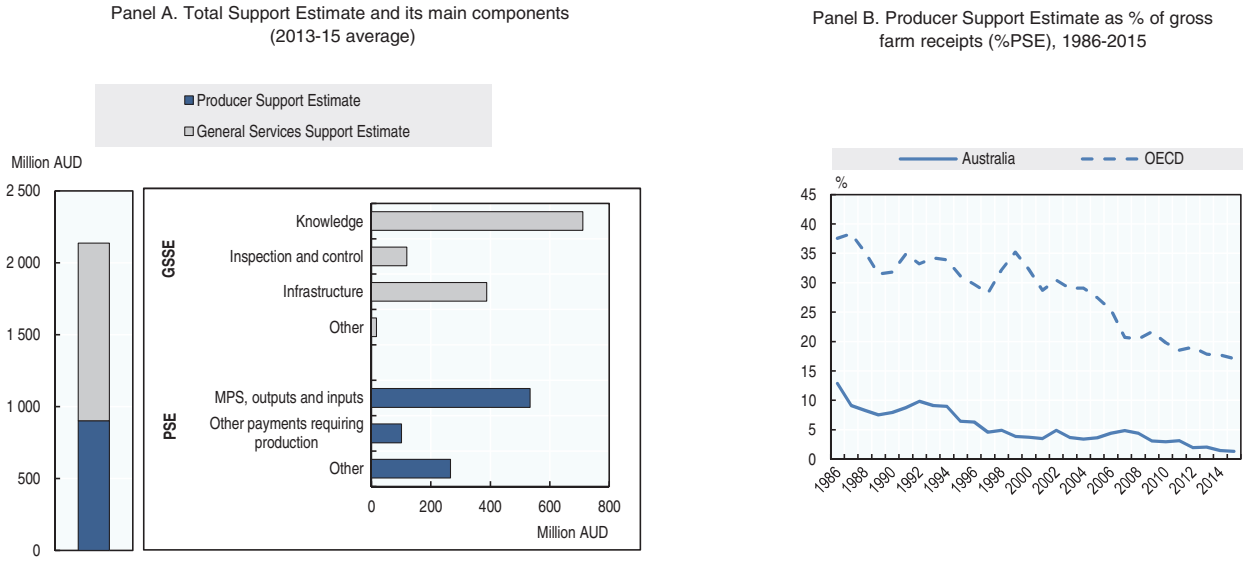
2.1. Australia

Support to agriculture

Support to producers in Australia has continuously been reduced from already relatively low levels in 1986-88 and at 1.3% its Producer Support (PSE) is the second lowest in the OECD (Figure 2.1). Total support to agriculture (TSE) amounted to around 0.1% of GDP in recent years. General services support (GSSE) makes up the largest share of total support, with the main elements funding for the Agricultural Knowledge and Innovation System and the development of infrastructure, which respectively account for 58% and 31% of GSSE expenditure. Payments based on input use and on income are the most important elements of the low Producer Support Estimate.

Reforms have led to domestic prices that are at parity with world prices, and Market Price Support (MPS) is zero. The share of potentially most distorting support has been reduced from 86% of PSE in 1986-88 to 7% in 2013-15. At the same time, agricultural support in Australia has shifted towards more targeted direct payments and the share of general services in total support has increased from 6% to 58%.

Figure 2.1. **Australia: Level, structure and evolution of agricultural support**



Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture Statistics (database), *http://dx.doi.org/10.1787/agr-pcse-data-en*.

StatLink http://dx.doi.org/10.1787/888933374410

Main policy changes

In July 2015, the Australian Government released the Agricultural Competitiveness "White Paper", which sets the broad parameters to guide the development of future Australian agricultural policy. The White Paper seeks to identify approaches for growing

farm profitability and boosting agriculture's contribution to economic growth, trade, innovation and productivity. The government also released a white paper to unlock the potential of Northern Australia.

The Government continued to implement drought assistance measures such as specific support payment for farmers experiencing financial hardship, a tax-advantaged savings scheme, and drought concessional loans programmes (loans at below market interest rates). Also, in late 2015 the Queensland parliament passed a new act to regulate the ownership of refined sugar in the Sugar Industry, in response to concerns from cane growers over competition issues. The major event in trade polices was the signing of the **Trans-Pacific Partnership** (TPP) agreement between Australia and 11 other members in February 2016.

Assessment and recommendations

- There has been continuous and significant progress on policy reform since 1986-88, reducing the level of support to agriculture as measured by the %PSE to close to 2%. Australia also removed the potentially most distorting forms of support in the early 2000s. The remaining support programmes are targeted to risk management, environmental conservation and provision of general services.
- Since the end of the Exceptional Circumstances programmes in 2013, Australia has continued to reform its drought policies. An Intergovernmental Agreement is now in place that aims to focus drought support measures on encouraging drought preparedness and resilience. Most policy measures have moved in this direction, however, new drought assistance measures implemented in 2014 have reintroduced concessional loans (loans at below market interest rates). These measures, as well as the new Act passed in 2015 in the Sugar industry, should be reviewed.
- The overall challenge for the future is to improve the economic viability of farms while ensuring a sustainable use of scarce resources, in particular, water. In this light, water market reforms and basin management should continue to be a policy priority.
- Australia should continue using its industry partnership arrangement through rural research and development corporations (RDCs) to foster innovation and the adoption of new technologies and practices, in order to improve productivity growth.

Table 2.1. **Australia: Estimates of support to agriculture**

Million AUD

	1986-88	1995-97	2013-15	2013	2014	2015p
Total value of production (at farm gate)	**19 888**	**28 441**	**54 841**	**53 355**	**53 600**	**57 570**
***of which:** share of MPS commodities (%)*	86.4	75.3	68.1	67.3	67.9	69.2
Total value of consumption (at farm gate)	**7 364**	**11 644**	**25 985**	**25 429**	**25 504**	**27 022**
Producer Support Estimate (PSE)	**2 022**	**1 694**	**901**	**1 125**	**794**	**784**
Support based on commodity output	1 447	834	0	0	0	0
Market Price Support[1]	1 447	834	0	0	0	0
Payments based on output	0	0	0	0	0	0
Payments based on input use	324	614	533	649	466	486
Based on variable input use	306	376	81	222	11	11
with input constraints	0	0	4	0	3	10
Based on fixed capital formation	5	33	281	238	291	313
with input constraints	0	0	151	115	159	181
Based on on-farm services	13	205	171	189	164	161
with input constraints	0	0	0	0	0	0
Payments based on current A/An/R/I, production required	0	19	101	86	110	107
Based on Receipts / Income	0	19	101	86	110	107
Based on Area planted / Animal numbers	0	0	0	0	0	0
with input constraints	0	0	0	0	0	0
Payments based on non-current A/An/R/I, production required	0	0	0	0	0	0
Payments based on non-current A/An/R/I, production not required	250	227	219	325	177	157
With variable payment rates	250	137	201	300	152	151
with commodity exceptions	0	0	148	145	150	150
With fixed payment rates	0	90	18	25	25	6
with commodity exceptions	0	0	0	0	0	0
Payments based on non-commodity criteria	0	1	47	66	42	34
Based on long-term resource retirement	0	0	0	0	0	0
Based on a specific non-commodity output	0	0	47	66	42	34
Based on other non-commodity criteria	0	1	0	0	0	0
Miscellaneous payments	0	0	0	0	0	0
Percentage PSE (%)	**10.1**	**5.8**	**1.6**	**2.1**	**1.5**	**1.3**
Producer NPC (coeff.)	**1.08**	**1.03**	**1.00**	**1.00**	**1.00**	**1.00**
Producer NAC (coeff.)	**1.11**	**1.06**	**1.02**	**1.02**	**1.01**	**1.01**
General Services Support Estimate (GSSE)	**132**	**511**	**1 235**	**1 154**	**1 277**	**1 275**
Agricultural knowledge and innovation system	132	385	711	726	714	694
Inspection and control	0	26	120	105	116	137
Development and maintenance of infrastructure	0	72	388	310	438	416
Marketing and promotion	0	27	17	13	8	29
Cost of public stockholding	0	0	0	0	0	0
Miscellaneous	0	0	0	0	0	0
Percentage GSSE (% of TSE)	**6.2**	**23.6**	**58.1**	**50.6**	**61.7**	**61.9**
Consumer Support Estimate (CSE)	**-848**	**-386**	**0**	**0**	**0**	**0**
Transfers to producers from consumers	-848	-386	0	0	0	0
Other transfers from consumers	0	0	0	0	0	0
Transfers to consumers from taxpayers	0	0	0	0	0	0
Excess feed cost	0	0	0	0	0	0
Percentage CSE (%)	**-11.6**	**-3.3**	**0.0**	**0.0**	**0.0**	**0.0**
Consumer NPC (coeff.)	**1.13**	**1.03**	**1.00**	**1.00**	**1.00**	**1.00**
Consumer NAC (coeff.)	**1.13**	**1.03**	**1.00**	**1.00**	**1.00**	**1.00**
Total Support Estimate (TSE)	**2 154**	**2 204**	**2 136**	**2 279**	**2 070**	**2 059**
Transfers from consumers	848	386	0	0	0	0
Transfers from taxpayers	1 306	1 818	2 136	2 279	2 070	2 059
Budget revenues	0	0	0	0	0	0
Percentage TSE (% of GDP)	**0.7**	**0.4**	**0.1**	**0.1**	**0.1**	**0.1**
GDP deflator (1986-88=100)	**100**	**134**	**224**	**224**	**224**	**223**

Note: 1986-88, 1995-97 and 2013-15: unweighted averages. p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

A/An/R/I: Area planted/Animal numbers/Receipts/Income.

1. Market Price Support (MPS) is net of producer levies and excess feed cost. MPS commodities for Australia are: wheat, barley, oats, sorghum, rice, soybean, rapeseed, sunflower, sugar, cotton, milk, beef and veal, sheep meat, wool, pig meat, poultry and eggs.

Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database). DOI: dx.doi.org/10.1787/agr-pcse-data-en.

StatLink http://dx.doi.org/10.1787/888933375801

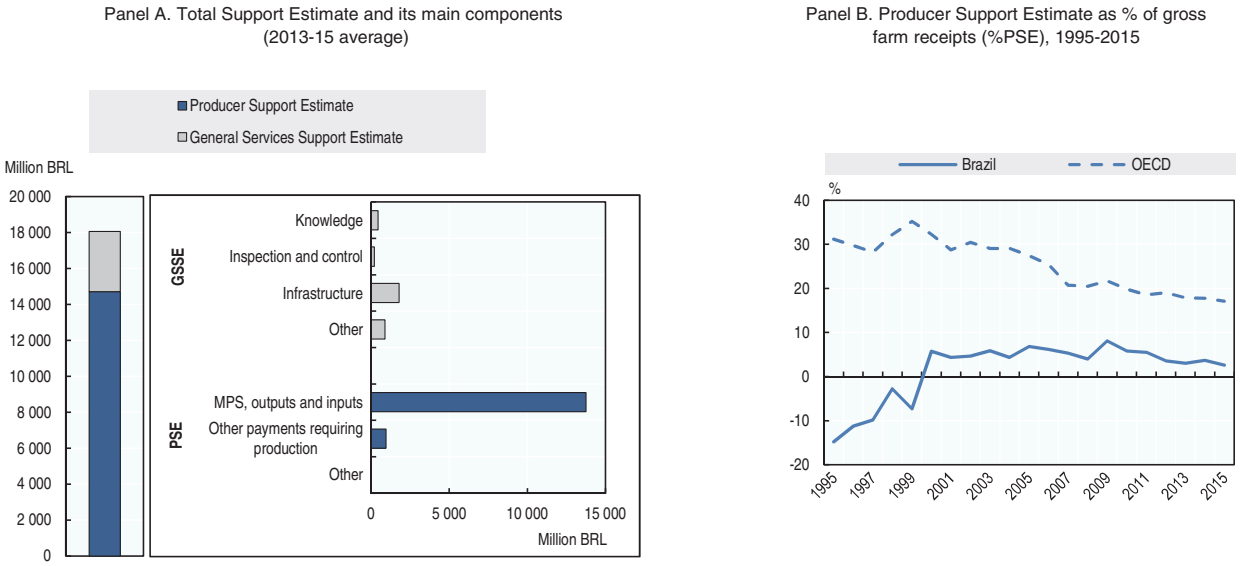
2.2. Brazil

Support to agriculture

Brazil provides a relatively low aggregate level of support and protection to agriculture, reflecting its position as a competitive exporter. The level of producer support (PSE) was 3.1% of gross farm receipts in 2013-15, compared to an OECD average of 17.6% (Figure 2.2). The total support estimate to agriculture (TSE) was around 0.3% of GDP in 2013-15. The direct support to farms (PSE) is the dominant part of the TSE (about 80%). Payments based on output and input use are the most important element of the support. As for the General Services Support Estimate (GSSE) the main element are payments on land restructuring for small family farms.

An important part of support to producers is provided through measures that distort farm prices and current costs although on aggregate the level of that type of support is moderate and there is a great deal of variation across commodities. While domestic prices were below world prices in the mid-1990s, generating negative market price support (MPS), prices are now almost aligned. Other important component of support to producers is support based on variable input, mainly through concessional credit and crop insurance subsidies. Credit is also available for farm investment. The role of direct payments is minor. Access to most farm support programmes is conditional on environmental criteria.

Figure 2.2. **Brazil: Level, structure and evolution of agricultural support**



Source: OECD (2016), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en.*

StatLink *http://dx.doi.org/10.1787/888933374424*

Main policy changes

In the continuation of previous policies the agricultural plan for 2015/16 continued to provide high levels of funding for credit subsidies. The agricultural plan for 2016/17 foresees a significant development of crop insurance, using funds previously dedicated to price guarantees. Efforts to restore domestic and international confidence in the safety of food (in particular animal) products include improvements in the inspection system.

Assessment and recommendations

- Despite the variety of regional price support programmes, prices received by agricultural producers in Brazil are more or less aligned with international levels. In 2015, minimum

guaranteed prices increased at a slower pace than inflation, and the depreciation of the BRL relative to USD further lowered price support. However, differences in support level by commodity create distortions within the sector, which should be removed.

- A number of initiatives, such as the development of better information and tools to analyse risk, and model contracts, were launched to improve the effectiveness of the crop insurance programme. This is expected to facilitate wider adoption, as foreseen in the agricultural plan for 2016/17, which allocates more funds for crop insurance subsidies to the detriment of funding for price support. It is essential to continue strengthening the information base to develop insurance products while using public funds efficiently, and monitor the effectiveness and efficiency of insurance subsidies, and ensure they are not crowding out market solutions.
- Agricultural credit at preferential interest rates has been growing consistently, in particular in recent years. Whereas the credit system is intended to address failures in financial markets, it also creates risks (default) for government and producers, particularly since the macroeconomic situation has deteriorated. The higher availability of funds for loans is partly explained by the obligation for banks to reserve a certain portion of their deposits for agricultural credit, thus potentially creating excess supply. Furthermore, most of this credit is concentrated on subsidising short-term borrowing such as working capital and commercialisation loans that further distort markets. A reform of the concessional credit system could consider a gradual downsizing of concessional loans for working capital to commercial producers, by gradually limiting the scope of eligible commercial producers and their supported activities. At the same time, access to credit by rural borrowers could be facilitated through simpler regulations and procedures. Agricultural credit support could then be re-focused to support on-farm investments that explicitly incorporate technological innovations and advanced farm management and environmental practices.
- Several programmes have been introduced recently to encourage environmental improvements and infrastructure development. For instance, insurance and credit support is conditioned by environmental criteria, and credit is available to modernise production systems and preserve natural resources, among others. Plans to extend irrigated areas foresee technical improvements in water use efficiency, but should ensure water abstraction remains sustainable.
- Access to export markets is crucial for Brazilian agriculture. The restructuring of the sanitary and phytosanitary inspection system with a view to improve its efficiency and reliability is an important contribution to gain or re-gain foreign markets, complemented by bilateral and multilateral trade discussions.
- Support to family farms aims to improve farmer incomes. However, existing mechanisms for social protection could protect farmer income more effectively and direct investment in infrastructure and public investments could trigger agricultural growth, for both commercial farms and smallholders, more efficiently.
- While weak infrastructure is still a significant bottleneck for agricultural development, financing of general services to agriculture constituted less than 20% of total support to the agricultural sector in 2013-15 and over time this share tended to decline. The main part of the Brazilian GSSE is represented by agrarian reform spending, which includes government purchase of lands for resettlement and investment in infrastructure and basic communal services for those settled areas.

Table 2.2. **Brazil: Estimates of support to agriculture**

Million BRL

	1995-97	2013-15	2013	2014	2015p
Total value of production (at farm gate)	**54 697**	**465 505**	**432 481**	**448 035**	**515 999**
***of which:** share of MPS commodities (%)*	73.3	78.4	77.2	81.8	76.2
Total value of consumption (at farm gate)	**52 131**	**319 266**	**300 215**	**311 465**	**346 118**
Producer Support Estimate (PSE)	**-6 811**	**14 710**	**13 364**	**17 135**	**13 632**
Support based on commodity output	-9 818	3 196	3 700	3 696	2 192
Market Price Support[1]	-9 893	1 926	2 690	1 989	1 100
Payments based on output	75	1 270	1 010	1 708	1 092
Payments based on input use	3 007	10 552	8 684	12 522	10 449
Based on variable input use	1 673	4 754	3 481	5 616	5 164
with input constraints	0	4 692	3 295	5 616	5 164
Based on fixed capital formation	1 200	4 846	3 895	6 163	4 481
with input constraints	0	4 846	3 895	6 163	4 481
Based on on-farm services	134	952	1 308	743	804
with input constraints	0	0	0	0	0
Payments based on current A/An/R/I, production required	0	963	980	916	991
Based on Receipts / Income	0	963	980	916	991
Based on Area planted / Animal numbers	0	0	0	0	0
with input constraints	0	0	0	0	0
Payments based on non-current A/An/R/I, production required	0	0	0	0	0
Payments based on non-current A/An/R/I, production not required	0	0	0	0	0
With variable payment rates	0	0	0	0	0
with commodity exceptions	0	0	0	0	0
With fixed payment rates	0	0	0	0	0
with commodity exceptions	0	0	0	0	0
Payments based on non-commodity criteria	0	0	0	0	0
Based on long-term resource retirement	0	0	0	0	0
Based on a specific non-commodity output	0	0	0	0	0
Based on other non-commodity criteria	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0
Percentage PSE (%)	**-12.0**	**3.1**	**3.0**	**3.7**	**2.6**
Producer NPC (coeff.)	**0.85**	**1.01**	**1.01**	**1.01**	**1.00**
Producer NAC (coeff.)	**0.89**	**1.03**	**1.03**	**1.04**	**1.03**
General Services Support Estimate (GSSE)	**2 914**	**3 346**	**3 056**	**3 353**	**3 628**
Agricultural knowledge and innovation system	675	446	464	419	454
Inspection and control	109	209	269	172	186
Development and maintenance of infrastructure	1 697	1 792	1 589	1 819	1 968
Marketing and promotion	8	64	50	68	74
Cost of public stockholding	425	835	684	874	946
Miscellaneous	0	0	0	0	0
Percentage GSSE (% of TSE)	**..**	**18.7**	**18.6**	**16.4**	**21.0**
Consumer Support Estimate (CSE)	**6 515**	**-2 691**	**-4 128**	**-2 537**	**-1 408**
Transfers to producers from consumers	6 577	-1 926	-2 690	-1 989	-1 098
Other transfers from consumers	-110	-766	-1 439	-548	-310
Transfers to consumers from taxpayers	15	0	0	0	0
Excess feed cost	32	0	0	0	0
Percentage CSE (%)	**12.4**	**-0.9**	**-1.4**	**-0.8**	**-0.4**
Consumer NPC (coeff.)	**0.89**	**1.01**	**1.01**	**1.01**	**1.00**
Consumer NAC (coeff.)	**0.89**	**1.01**	**1.01**	**1.01**	**1.00**
Total Support Estimate (TSE)	**-3 882**	**18 056**	**16 421**	**20 488**	**17 260**
Transfers from consumers	-6 467	2 691	4 128	2 537	1 408
Transfers from taxpayers	2 695	16 131	13 731	18 499	16 162
Budget revenues	-110	-766	-1 439	-548	-310
Percentage TSE (% of GDP)	**..**	**0.3**	**0.3**	**0.4**	**0.3**
GDP deflator (1995-97=100)	**100**	**402**	**374**	**399**	**432**

.. Not available

Note: 1995-97 and 2013-15: unweighted averages. p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

A/An/R/I: Area planted/Animal numbers/Receipts/Income.

1. Market Price Support (MPS) is net of producer levies and excess feed cost. MPS commodities for Brazil are: wheat, maize, rice, soybean, sugar, milk, beef and veal, pig meat, poultry, cotton, coffee.

Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database). DOI: dx.doi.org/10.1787/agr-pcse-data-en.

StatLink http://dx.doi.org/10.1787/888933375818

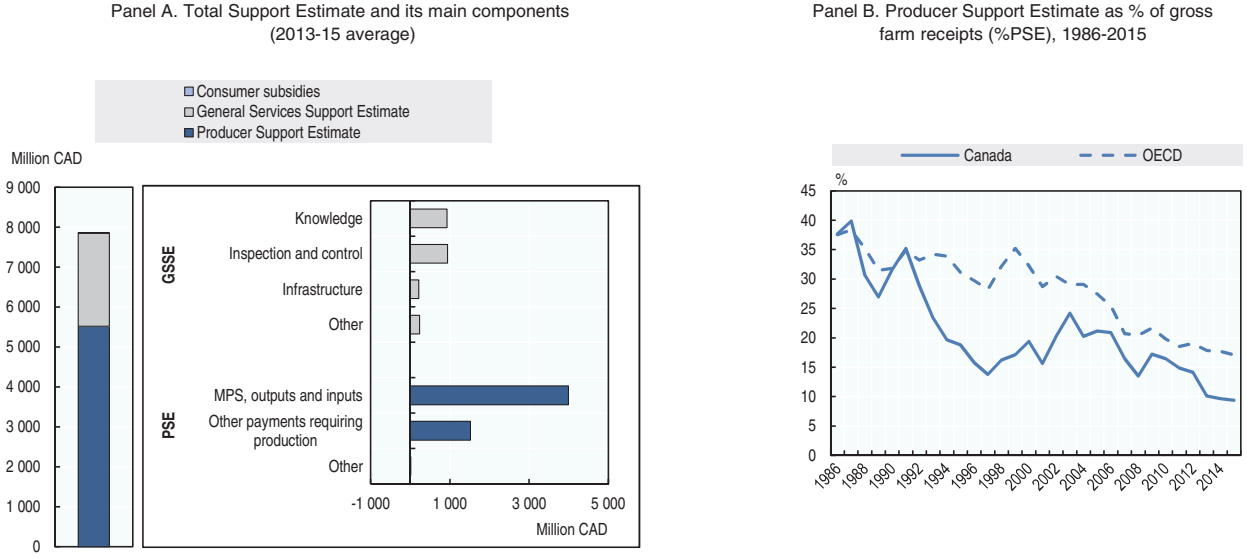
2.3. Canada

Support to agriculture

Canada has reduced agricultural support significantly since the late 1980s. Producer support as a share of receipts fell sharply between 1986-88 and 1995-97, in large part because market price support (MPS) to the grains industry was discontinued in 1995. The decline in the level of support since then has been more gradual because there have not been any significant policy changes to MPS for dairy, poultry, and eggs. MPS for these sectors accounts for around 64% of the producer support estimate (PSE) in 2013-15. Lower levels of disaster payments in recent years and a shift of budgetary expenditures towards generic, not farm-specific, support to the sector since the mid-1990s have resulted in lower farm income support overall.

Canada's PSE declined from 36% in 1986-88 to 10% in 2013-15, and has been consistently below the OECD average. However, the share of potentially most distorting support (based on output and variable input use – without input constraints) was 70% in 2013-15, above the OECD average and at a similar level to 1986-88. MPS for milk accounts for the largest share of potentially most distorting support. On average, prices received by farmers were 7% higher in 2013-15 than those observed in world markets. Since 1995, this has largely resulted from MPS for milk, poultry and eggs, as producer prices of other commodities are mostly aligned with border prices. As producer support has declined, the share of the General Services Support Estimate (GSSE) has increased in the Total Support Estimate to agriculture (TSE). The share of GSSE in TSE has almost doubled since 1986-88 to around 29%, as a greater proportion of budgetary transfers was shifted to indirect support, including Agricultural Knowledge and Innovation Systems and Inspection and Control.

Figure 2.3. **Canada: Level, structure and evolution of agricultural support**



Source: OECD (2016), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics (database)*, http://dx.doi.org/10.1787/agr-pcse-data-en.

StatLink http://dx.doi.org/10.1787/888933374436

Main policy changes

The current agricultural policy framework in Canada, *Growing Forward 2* (GF2), expires in 2018. There were several new initiatives under GF2 programmes in 2015-16. These

include two new *AgriRisk Initiatives*, which aim to develop new risk management tools for wheat and hog producers. Producers also received CAD 10.17 million (USD 7.95 million) in disaster relief payments under three *AgriRecovery Initiatives*.

Canada also made changes to the *Advance Payments Program* (APP), the federal loan guarantee programme that gives producers easier access to credit through cash advances. These changes broadened programme eligibility and increased programme flexibility around repayment methods and options.

The Canadian Food Inspection Agency has embarked on a change agenda designed to strengthen how it administers and enforces regulations within its jurisdiction that relate to food, animals and plants. Policy developments include changes to modernise regulations and the development of a policy on private certification schemes used by industry.

In 2015, Canada concluded negotiations towards the **Trans-Pacific Partnership Agreement**, creating a regional trading bloc with 11 other countries, a free trade agreement (FTA) with the ***Ukraine***, and the modernisation of existing FTAs with ***Israel*** and ***Chile***.

Assessment and recommendations

Canada's domestic markets for most agricultural commodities are competitive. However, the dairy, poultry and egg sectors are protected from international competition and continue to receive high market price support. This distorts production and trade and acts as a barrier to entry into those supply-managed sectors, because high rents are capitalised in the value of quotas required to produce under the supply-management system. Over time, there has been an increasing emphasis on generic support to the sectors relative to farm income support through new programmes that target industry-led research and development, adoption of innovation in food and agriculture, and marketing initiatives.

There are a number of reforms that could contribute to Canada's long-term objective of improving the profitability, competitiveness and sustainability of the food and agriculture sector.

- As a step towards phasing out supply management, the amount of quota available should be increased and price support for the dairy, poultry and egg sectors should be reduced. This would encourage greater market responsiveness, stimulate innovation (to increase efficiency and diversify towards higher value products), and reduce quota rents, which currently act as a barrier to entry into supply-managed sectors.
- Stricter protocols and disciplines should be in place for *ad hoc* programmes. This would reduce potential pressure for additional support in situations where existing programmes suffice, and encourage farmers to find better ways to manage risk.
- The policy focus should continue to shift towards facilitating the adoption of innovation by targeting industry-led research and development, adoption of innovation in food and agriculture, and marketing initiatives. This would contribute to the long-term objectives of improving the competitiveness and sustainability of the sector.

Table 2.3. **Canada: Estimates of support to agriculture**

Million CAD

	1986-88	1995-97	2013-15	2013	2014	2015p
Total value of production (at farm gate)	**18 458**	**27 549**	**54 838**	**52 542**	**55 719**	**56 254**
of which: *share of MPS commodities (%)*	85.6	84.2	85.1	84.6	84.8	85.9
Total value of consumption (at farm gate)	**15 732**	**20 858**	**32 953**	**31 395**	**32 872**	**34 591**
Producer Support Estimate (PSE)	**8 086**	**4 840**	**5 523**	**5 514**	**5 571**	**5 483**
Support based on commodity output	4 592	2 465	3 549	3 644	3 548	3 456
Market Price Support[1]	4 116	2 296	3 549	3 644	3 548	3 456
Payments based on output	476	169	0	0	0	0
Payments based on input use	1 426	715	440	443	454	425
Based on variable input use	810	358	330	332	334	325
with input constraints	0	0	0	0	0	0
Based on fixed capital formation	590	337	96	100	103	86
with input constraints	0	0	2	6	1	0
Based on on-farm services	26	20	14	11	18	14
with input constraints	0	0	0	0	0	0
Payments based on current A/An/R/I, production required	1 789	840	1 519	1 411	1 553	1 593
Based on Receipts / Income	634	459	706	644	693	781
Based on Area planted / Animal numbers	1 155	382	813	766	860	812
with input constraints	0	0	0	0	0	0
Payments based on non-current A/An/R/I, production required	0	0	1	0	1	1
Payments based on non-current A/An/R/I, production not required	0	790	0	1	0	0
With variable payment rates	0	733	0	0	0	0
with commodity exceptions	0	0	0	0	0	0
With fixed payment rates	0	58	0	1	0	0
with commodity exceptions	0	0	0	0	0	0
Payments based on non-commodity criteria	10	0	0	1	0	0
Based on long-term resource retirement	10	0	0	1	0	0
Based on a specific non-commodity output	0	0	0	0	0	0
Based on other non-commodity criteria	0	0	0	0	0	0
Miscellaneous payments	269	30	13	15	15	9
Percentage PSE (%)	**36.1**	**16.1**	**9.7**	**10.1**	**9.6**	**9.4**
Producer NPC (coeff.)	**1.39**	**1.10**	**1.07**	**1.07**	**1.07**	**1.07**
Producer NAC (coeff.)	**1.57**	**1.19**	**1.11**	**1.11**	**1.11**	**1.10**
General Services Support Estimate (GSSE)	**1 512**	**1 674**	**2 327**	**2 374**	**2 361**	**2 247**
Agricultural knowledge and innovation system	633	723	932	935	916	946
Inspection and control	372	355	941	973	1 027	824
Development and maintenance of infrastructure	352	203	216	209	191	249
Marketing and promotion	111	346	218	237	210	207
Cost of public stockholding	0	0	0	0	0	0
Miscellaneous	45	47	20	21	17	22
Percentage GSSE (% of TSE)	**15.8**	**25.8**	**29.6**	**30.1**	**29.7**	**29.1**
Consumer Support Estimate (CSE)	**-3 758**	**-2 415**	**-3 686**	**-4 152**	**-3 375**	**-3 532**
Transfers to producers from consumers	-4 063	-2 405	-3 196	-3 619	-2 893	-3 075
Other transfers from consumers	-48	-26	-494	-536	-485	-459
Transfers to consumers from taxpayers	42	6	3	4	3	2
Excess feed cost	310	9	0	0	0	0
Percentage CSE (%)	**-24.0**	**-11.6**	**-11.2**	**-13.2**	**-10.3**	**-10.2**
Consumer NPC (coeff.)	**1.36**	**1.13**	**1.13**	**1.15**	**1.11**	**1.11**
Consumer NAC (coeff.)	**1.32**	**1.13**	**1.13**	**1.15**	**1.11**	**1.11**
Total Support Estimate (TSE)	**9 641**	**6 519**	**7 853**	**7 892**	**7 935**	**7 732**
Transfers from consumers	4 111	2 430	3 689	4 155	3 378	3 534
Transfers from taxpayers	5 578	4 115	4 657	4 273	5 042	4 657
Budget revenues	-48	-26	-494	-536	-485	-459
Percentage TSE (% of GDP)	**1.7**	**0.8**	**0.4**	**0.4**	**0.4**	**0.4**
GDP deflator (1986-88=100)	**100**	**126**	**183**	**181**	**184**	**184**

Note: 1995-97 and 2013-15: unweighted averages. p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

A/An/R/I: Area planted/Animal numbers/Receipts/Income.

1. Market Price Support (MPS) is net of producer levies and excess feed cost. MPS commodities for Canada are: wheat, maize, barley, oats, soybean, rapeseed, flax, potatoes, lentils, dry beans, dry peas, milk, beef and veal, pig meat, poultry and eggs.

Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database). DOI: dx.doi.org/10.1787/agr-pcse-data-en.

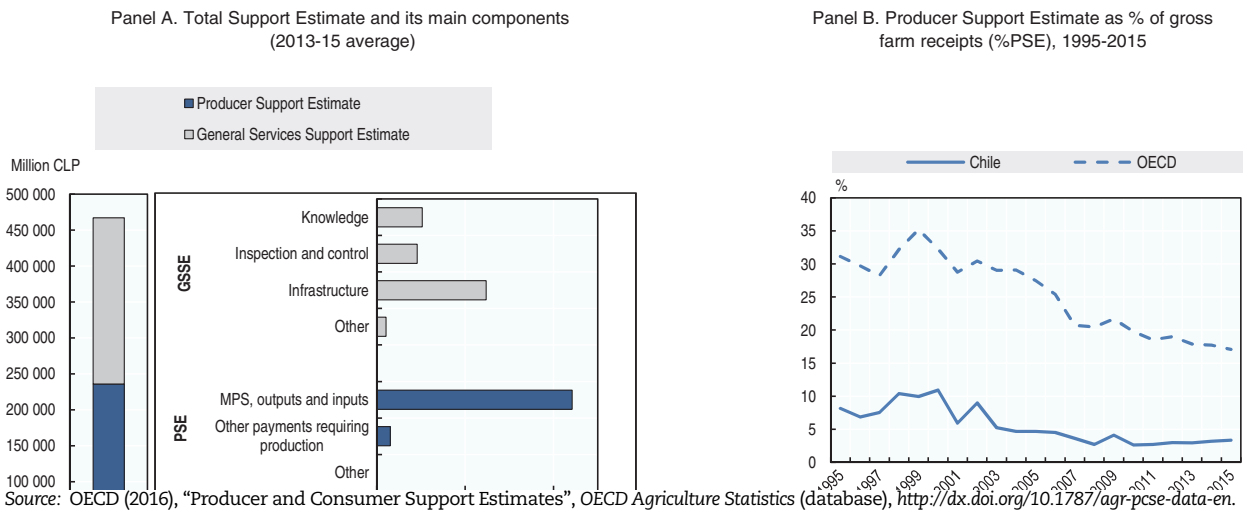
StatLink http://dx.doi.org/10.1787/888933375829

2.4. Chile

Support to agriculture

Chilean agricultural policy does not create significant distortions on agricultural markets. Domestic prices are aligned with international prices, resulting in a Nominal Protection Coefficient (NPC) of unity in the years 2013-15. Producer Support Estimate (PSE) accounted for an average of 3% of gross farm receipts in 2013-15. Measures at the farm level (i.e. input payments) are directed mainly to smallholders (more than 75% of total spending) through payments that improve farm capital (e.g. on-farm infrastructure, irrigation, soil quality) and on-farm services (e.g. farm training). Around 50% of government spending on agriculture is provided through general services to develop agriculture as a whole (e.g. hydrological infrastructure, sanitary and phytosanitary services and agricultural knowledge and innovation system). Market Price Support (MPS) is relatively small, accounting for only 3% of the PSE.

Figure 2.4. **Chile: Level, structure and evolution of agricultural support**



Source: OECD (2016), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en.*

StatLink *http://dx.doi.org/10.1787/888933374447*

Main policy changes

The fundamental orientation of agricultural policy remained unchanged; the policy objectives continue to emphasise agricultural competitiveness, with investments targeted to a number of areas, notably irrigation, and in maintaining Chile's strong sanitary and phyto-sanitary conditions, strengthening policy instruments that promote family farming and the development of rural economy. This is done through emphasising technological innovation, access to credit for smallholders, irrigation, and improving market information. Due to new challenges created by natural disasters, which have become more frequent over the past few years, some initiatives were taken in 2015 to better deal with risk and better manage water resources. Efforts were made through public-private partnerships to create more value added along the food value chains, and to improve the functioning of markets. Training and skills for agricultural workers and farmers were also strengthened.

Assessment and recommendations

- Chilean agricultural policy creates few market distortions and its PSE averages 3% of gross farm receipts in 2013-15. Total support to agriculture imposes a smaller burden on the economy than in most OECD countries, accounting for only 0.3% of GDP in 2015. General services account for 50% of total support to this sector, mainly directed at infrastructure, R&D and inspection services.
- NPC equals unity meaning that domestic prices are perfectly aligned with international prices. Chile has ensured that its agricultural policies remain well targeted to its principal objectives of facilitating smallholder development, i.e. 75% of direct payments go to smallholders to aim improving productivity and competiveness.
- Total budgetary allocations to the agricultural sector (i.e. payments to farmers and spending on general services) remained more or less constant between 2014 and 2015. Support payments comprise mostly support for farm inputs, rural and territorial development, the recovery of degraded soils, and on-farm irrigation. Most of the allocations on general services consist of spending on infrastructure (irrigation), inspection services, R&D, knowledge transfer and improving market information.
- While gradually increasing payments to farmers are targeted towards small-scale agriculture and indigenous farmers, careful attention should be paid to assessing their effectiveness. Impact assessments should be carried out systematically.
- As more projects and programmes to develop agriculture are being created across different ministries, there is a greater need for co-ordination.

Table 2.4. **Chile: Estimates of support to agriculture**

Million CLP

	1995-97	2013-15	2013	2014	2015p
Total value of production (at farm gate)	**2 098 835**	**7 229 929**	**6 886 956**	**7 224 417**	**7 578 413**
of which: *share of MPS commodities (%)*	64.6	63.2	65.5	61.3	62.6
Total value of consumption (at farm gate)	**2 110 811**	**6 448 466**	**6 107 576**	**6 699 917**	**6 537 905**
Producer Support Estimate (PSE)	**159 715**	**236 064**	**208 181**	**238 140**	**261 871**
Support based on commodity output	129 647	7 701	8 220	6 784	8 100
Market Price Support[1]	129 647	7 701	8 220	6 784	8 100
Payments based on output	0	0	0	0	0
Payments based on input use	25 910	213 217	195 338	212 232	232 082
Based on variable input use	6 697	45 524	44 263	46 865	45 444
with input constraints	0	0	0	0	0
Based on fixed capital formation	9 825	110 464	102 803	112 261	116 327
with input constraints	6 909	59 480	55 782	58 445	64 212
Based on on-farm services	9 389	57 229	48 272	53 106	70 310
with input constraints	307	17 196	13 937	16 263	21 389
Payments based on current A/An/R/I, production required	4 158	15 145	4 623	19 123	21 689
Based on Receipts / Income	0	0	0	0	0
Based on Area planted / Animal numbers	4 158	15 145	4 623	19 123	21 689
with input constraints	4 158	15 145	4 623	19 123	21 689
Payments based on non-current A/An/R/I, production required	0	0	0	0	0
Payments based on non-current A/An/R/I, production not required	0	0	0	0	0
With variable payment rates	0	0	0	0	0
with commodity exceptions	0	0	0	0	0
With fixed payment rates	0	0	0	0	0
with commodity exceptions	0	0	0	0	0
Payments based on non-commodity criteria	0	0	0	0	0
Based on long-term resource retirement	0	0	0	0	0
Based on a specific non-commodity output	0	0	0	0	0
Based on other non-commodity criteria	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0
Percentage PSE (%)	**7.5**	**3.2**	**2.9**	**3.2**	**3.3**
Producer NPC (coeff.)	**1.07**	**1.00**	**1.00**	**1.00**	**1.00**
Producer NAC (coeff.)	**1.08**	**1.03**	**1.03**	**1.03**	**1.03**
General Services Support Estimate (GSSE)	**32 672**	**230 952**	**196 788**	**235 374**	**260 693**
Agricultural knowledge and innovation system	9 085	51 450	47 957	52 311	54 082
Inspection and control	400	45 520	37 636	46 653	52 271
Development and maintenance of infrastructure	20 888	123 721	101 501	126 419	143 243
Marketing and promotion	2 078	10 260	9 693	9 991	11 097
Cost of public stockholding	0	0	0	0	0
Miscellaneous	220	0	0	0	0
Percentage GSSE (% of TSE)	**16.3**	**49.4**	**48.6**	**49.7**	**49.9**
Consumer Support Estimate (CSE)	**-160 287**	**-19 384**	**-19 364**	**-18 700**	**-20 088**
Transfers to producers from consumers	-132 208	-7 682	-8 161	-6 784	-8 100
Other transfers from consumers	-31 023	-11 702	-11 203	-11 915	-11 988
Transfers to consumers from taxpayers	0	0	0	0	0
Excess feed cost	2 945	0	0	0	0
Percentage CSE (%)	**-7.6**	**-0.3**	**-0.3**	**-0.3**	**-0.3**
Consumer NPC (coeff.)	**1.08**	**1.00**	**1.00**	**1.00**	**1.00**
Consumer NAC (coeff.)	**1.08**	**1.00**	**1.00**	**1.00**	**1.00**
Total Support Estimate (TSE)	**192 387**	**467 015**	**404 969**	**473 514**	**522 564**
Transfers from consumers	163 232	19 384	19 364	18 700	20 088
Transfers from taxpayers	60 178	459 334	396 808	466 730	514 464
Budget revenues	-31 023	-11 702	-11 203	-11 915	-11 988
Percentage TSE (% of GDP)	**0.6**	**0.3**	**0.3**	**0.3**	**0.3**
GDP deflator (1995-97=100)	**100**	**220**	**208**	**220**	**231**

Note: 1995-97 and 2013-15: unweighted averages. p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

A/An/R/I: Area planted/Animal numbers/Receipts/Income.

1. Market Price Support (MPS) is net of producer levies and excess feed cost. MPS commodities for Chile are: wheat, maize, apples, grapes, sugar, tomatoes, milk, beef and veal, pig meat and poultry.

Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database). DOI: dx.doi.org/10.1787/agr-pcse-data-en.

StatLink http://dx.doi.org/10.1787/888933375831

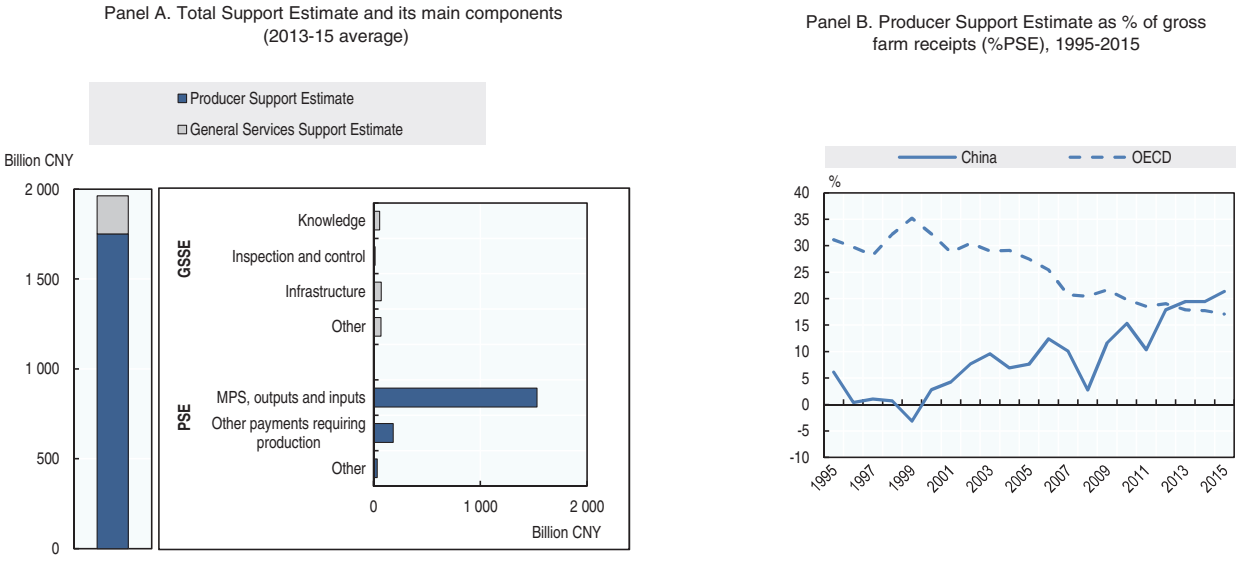
2.5. China

Support to agriculture

In the People's Republic of China (hereafter "China") support to agricultural producers continues to grow and at 20% of gross farm receipts in 2013-15 exceeded the OECD average. In 2015, the government kept minimum prices for rice and wheat at the 2014 level and expanded a range of commodities covered by reforms replacing government purchases at intervention prices by a system that compensates the difference between target prices and actual market prices. However, a continued fall of international prices drove market price support (MPS) to a new record high. The total support estimate (TSE) was 3.1% of GDP in recent years. While payments based on area planted tend to increase, the MPS remain the dominant part of the total support. Within the General Services Support Estimate (GSSE), three categories attract the largest financial support: development and maintenance of infrastructure, public stockholding and agricultural knowledge and innovation system.

The level of price distortions is high with domestic prices on average 23% above world prices. With the exception of eggs and poultry, producers are benefiting from high transfers accounting in most cases for between 20% and 40% of receipts. Following the discontinuation of intervention prices for cotton, in 2015 domestic cotton prices fell almost to the world levels and the fall has been covered by compensatory payments accounting for a growing share of cotton producers' receipts.

Figure 2.5. **China: Level, structure and evolution of agricultural support**



Source: OECD (2016), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en.*

StatLink http://dx.doi.org/10.1787/888933374450

Main policy changes

In 2015, China undertook a number of policy measures to keep a growing positive gap between domestic and international prices under control. These measures included: keeping minimum prices for wheat and rice at the 2014 levels; a 10% reduction of the floor price for maize; continued application of target prices for cotton and soybeans combined with compensatory payments; discontinuation of floor prices for rapeseeds; and lowering of the floor price for sugar cane. China also started the process of combining three area

payments (direct payments for grain producers, comprehensive subsidy on agricultural inputs and seed variety subsidy) into a single payment called "agricultural support and protection subsidy". Most of the funds for this new payment will go to traditional small-scale farmers who are expected to use the funds for land fertility improvements; a small proportion of the funds will be used to support larger-scale "new-style" farmers.

Assessment and recommendations

- Recent reforms to replace intervention prices by target prices combined with compensatory payments based partly on area planted could be extended to include maize, rice and wheat. In the future, the link between compensatory payments and production decisions should be further removed by providing them on a historical production area for example, and "greened" by making them conditional on environmentally friendly cultivation practices.
- As land and water are very scarce in China and environmental pollution caused by farming has become an alarming issue, any further increase in agricultural production should only be achieved through sustainable improvement of productivity. In this respect, existing agricultural policy instruments should be reviewed to improve their coherence with agro-environmental policy objectives. In particular, water price reform could be accelerated to cover water provision costs, in order to enhance more efficient water use.
- To address the issue of rural poverty, access of the rural poor to education, healthcare and physical infrastructure should be further improved. For the elderly, the government should – as envisaged – quickly take full responsibility for rural pensions and also gradually increase their level.
- To reduce potential volatility of food supplies on domestic markets, China should further diversify sources of food through stronger integration of domestic and international agro-food markets.
- To ease the re-allocation of land to more efficient farmers, recent land market reforms strengthening rural land-use rights should be further reinforced. This can be achieved by: providing all rural households with certificates detailing their land rights; establishing transparent exchange platforms for the transfer of rights for rural farmland and construction land; increasing the duration of the right to rural farmland, with contracts automatically renewable upon expiration; and universally introducing resident permits for migrant workers that provide access to public services, while protecting their land entitlements.

Table 2.5. **China: Estimates of support to agriculture**

Million CNY

	1995-97	2013-15	2013	2014	2015p
Total value of production (at farm gate)	**1 997 968**	**8 355 129**	**7 993 290**	**8 372 780**	**8 699 318**
***of which:** share of MPS commodities (%)*	73.1	54.5	53.4	55.8	54.3
Total value of consumption (at farm gate)	**2 053 260**	**8 806 973**	**8 715 518**	**8 849 714**	**8 855 685**
Producer Support Estimate (PSE)	**48 223**	**1 750 414**	**1 621 984**	**1 697 605**	**1 931 653**
Support based on commodity output	10 976	1 401 957	1 281 943	1 344 766	1 579 163
Market Price Support[1]	10 976	1 401 957	1 281 943	1 344 766	1 579 163
Payments based on output	0	0	0	0	0
Payments based on input use	31 931	128 230	129 158	137 396	118 135
Based on variable input use	17 115	23 265	22 636	24 473	22 686
with input constraints	0	0	0	0	0
Based on fixed capital formation	10 816	82 667	84 150	87 730	76 121
with input constraints	0	0	0	0	0
Based on on-farm services	3 999	22 298	22 372	25 193	19 329
with input constraints	0	0	0	0	0
Payments based on current A/An/R/I, production required	3 866	184 387	176 435	179 465	197 260
Based on Receipts / Income	3 866	13 710	10 955	17 008	13 166
Based on Area planted / Animal numbers	0	170 677	165 480	162 457	184 094
with input constraints	0	0	0	0	0
Payments based on non-current A/An/R/I, production required	0	0	0	0	0
Payments based on non-current A/An/R/I, production not required	1 450	20 317	19 812	20 528	20 611
With variable payment rates	0	0	0	0	0
with commodity exceptions	0	0	0	0	0
With fixed payment rates	1 450	20 317	19 812	20 528	20 611
with commodity exceptions	0	0	0	0	0
Payments based on non-commodity criteria	0	15 524	14 636	15 451	16 485
Based on long-term resource retirement	0	15 524	14 636	15 451	16 485
Based on a specific non-commodity output	0	0	0	0	0
Based on other non-commodity criteria	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0
Percentage PSE (%)	**2.5**	**20.1**	**19.5**	**19.5**	**21.3**
Producer NPC (coeff.)	**1.01**	**1.23**	**1.22**	**1.21**	**1.25**
Producer NAC (coeff.)	**1.03**	**1.25**	**1.24**	**1.24**	**1.27**
General Services Support Estimate (GSSE)	**46 121**	**212 909**	**202 802**	**232 867**	**203 057**
Agricultural knowledge and innovation system	3 750	58 393	58 089	62 184	54 906
Inspection and control	2 214	13 678	12 944	14 263	13 828
Development and maintenance of infrastructure	10 773	71 553	71 776	76 420	66 462
Marketing and promotion	0	3 576	4 773	3 805	2 150
Cost of public stockholding	29 384	65 709	55 220	76 195	65 712
Miscellaneous	0	0	0	0	0
Percentage GSSE (% of TSE)	**58.8**	**10.9**	**11.1**	**12.1**	**9.5**
Consumer Support Estimate (CSE)	**-21 124**	**-1 599 407**	**-1 483 291**	**-1 469 171**	**-1 845 759**
Transfers to producers from consumers	-4 862	-1 463 200	-1 378 405	-1 391 534	-1 619 662
Other transfers from consumers	-12 328	-223 963	-182 089	-158 359	-331 441
Transfers to consumers from taxpayers	2 101	0	0	0	0
Excess feed cost	-6 035	87 756	77 203	80 722	105 343
Percentage CSE (%)	**-1.2**	**-18.2**	**-17.0**	**-16.6**	**-20.8**
Consumer NPC (coeff.)	**1.01**	**1.24**	**1.22**	**1.21**	**1.28**
Consumer NAC (coeff.)	**1.01**	**1.22**	**1.21**	**1.20**	**1.26**
Total Support Estimate (TSE)	**96 446**	**1 963 323**	**1 824 786**	**1 930 472**	**2 134 710**
Transfers from consumers	17 190	1 687 163	1 560 494	1 549 893	1 951 102
Transfers from taxpayers	91 583	500 122	446 381	538 938	515 048
Budget revenues	-12 328	-223 963	-182 089	-158 359	-331 441
Percentage TSE (% of GDP)	**1.4**	**3.1**	**3.1**	**3.0**	**3.2**
GDP deflator (1995-97=100)	**100**	**177**	**176**	**177**	**177**

Note: 1995-97 and 2013-15: unweighted averages. p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

A/An/R/I: Area planted/Animal numbers/Receipts/Income.

1. Market Price Support (MPS) is net of producer levies and excess feed cost. MPS commodities for China are: wheat, maize, rice, rapeseed, soybean, sugar, milk, beef and veal, sheep meat, pig meat, poultry, eggs, cotton, apples and peanuts.

Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database). DOI: dx.doi.org/10.1787/agr-pcse-data-en.

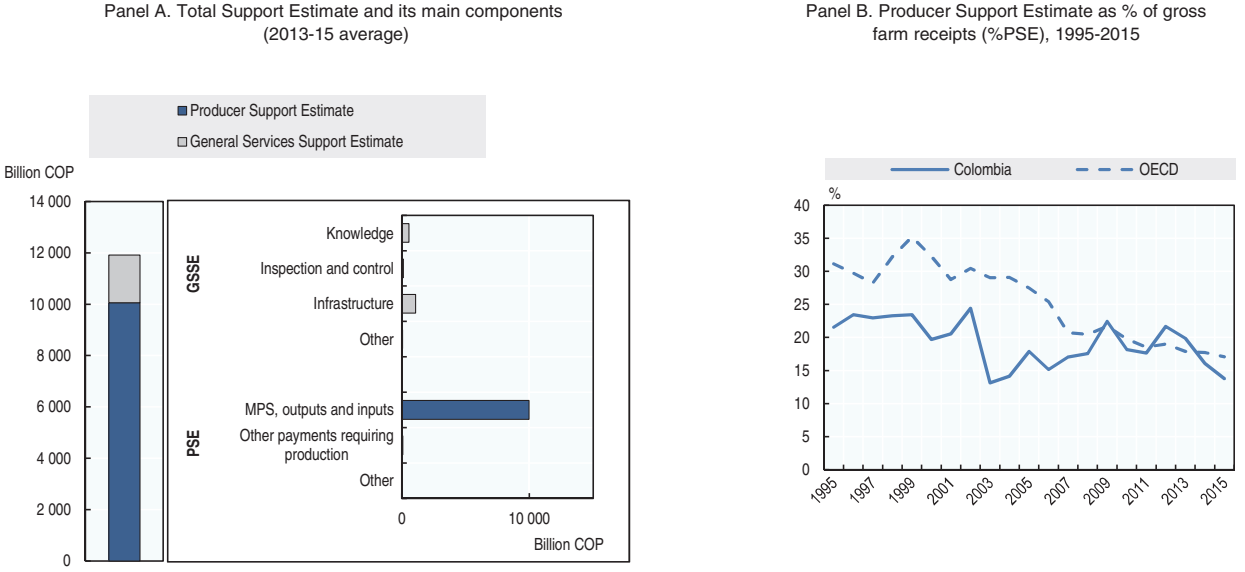
StatLink http://dx.doi.org/10.1787/888933375843

2.6. Colombia

Support to agriculture

Colombia's level of support to producers (%PSE) averaged 17% of gross farm receipts over the period 2013-15, approximately at the same level as the OECD average. Market price support (MPS) is the main component of the PSE – accounting for around two-thirds of the total support provided over the period 2013-15. MPS is mostly determined by the use of border measures for several agricultural products like maize, rice, poultry, milk, sugar, and pig meat. Budgetary transfers accounted for 22% of the PSE during 2013-15 and have been dominated by payments based on variable input use. Budgetary payments to general services to support the sector as a whole, or GSSE have been relatively small, accounting on average for only 16% of the total support estimate (TSE). Expenditures on these items include: agricultural research and transfer, infrastructure particularly in irrigation and farm restructuring.

Figure 2.6. **Colombia: Level, structure and evolution of agricultural support**



Source: OECD (2016), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en.*

StatLink *http://dx.doi.org/10.1787/888933374465*

Main policy changes

A new policy framework, *Colombia Siembra*, was created in 2015 and aims to raise agricultural production through an increase in the planted area and yields of several crops. It plans to create a zooning programme, a risk management programme and a range of financial instruments for producers, as well as to improve extension and technical assistance services. Several institutional reforms took place in 2015. For instance, the INCODER, the institution in charge of rural development and land issues, was dismantled and its functions will be implemented by several newly created agencies as of end 2016. Three main agencies were created in its place: the National Land Agency (*Agencia Nacional de Tierras*, ANT); the Rural Development Agency (*Agencia de Desar rollo Rural*, ADR); and the Renovation of Territory Agency (*Agencia de Renovación de Territorio*, ART). A new important programme was created in 2015 to deliver budgetary support to agriculture: 75% of the programme is delivering general services such as irrigation, marketing and promotion and

extension services. The remainder of transfers is given through a range of different input subsidies to farmers. In 2015, the Colombian government implemented a series of trade policy measures. All tariffs for fertilisers and pesticides imports were dismantled. Tariffs for beans, lentils, and garlic were set to 0% (until June 2016) as well as for palm oil (until August 2016). Tariffs for sugar were set to a maximum of 70% from a 117% in previous years.

Assessment and recommendations

- The agricultural sector in Colombia faces a wide series of structural and institutional challenges that hinder competitiveness. Underinvestment in public goods and services, poor land management, unsuccessful land tenure reforms (more than 40% of land ownership continues to be informal) and the long-running internal conflict, have deeply affected the performance of the Colombian agricultural sector.
- The sector is mostly supported through measures that distort markets, while general services have been neglected. Market price support (MPS) is the dominant form of support to producers and is provided through border protection through high import tariffs, tariff rate quotas and in particular the Andean Price Band System (SAFP). Colombia also implements a range of policies aimed at price stabilisation (Price Stabilisation Funds, FEP) which contribute to the high levels of price support. An assessment of the effectiveness of the Price Stabilisation Funds used in several agricultural products could be carried out.
- Critical areas such as infrastructure, agricultural research and development (R&D) and agricultural knowledge transfer and farm restructuring continue to receive limited support. Short term responses to the problems faced by agricultural producers have diverted scarce economic resources from the need to develop the enabling environment for more inclusive and sustainable agricultural growth. Input subsidies are an important feature of the policy landscape, and dominate the budgetary transfers to producers. Specific programmes are also in place related to land rights.
- Programmes should be more targeted to specific objectives and overlap between measures should be reduced. The majority of programmes cover very broad and different areas and are implemented through a bundle of policy instruments with unclear impact.
- A thorough review and impact assessment of the wide array of policy instruments and programmes to support agriculture, including those implemented by private producer associations with government support would allow the redefinition and reorganisation of policy instruments based on evidence of costs and benefits. Institutional co-ordination should be improved and information better disseminated to farmers.
- Colombia faces the twin challenges of high concentration of land ownership and the under-exploitation of arable land. Improved land rights should contribute to long-term growth in the agriculture sector and promote rural development.

Table 2.6. **Colombia: Estimates of support to agriculture**

Million COP

	1995-97	2013-15	2013	2014	2015p
Total value of production (at farm gate)	**14 671 678**	**58 847 982**	**52 221 879**	**57 006 000**	**67 316 067**
***of which:** share of MPS commodities (%)*	72.9	76.6	76.2	77.7	76.0
Total value of consumption (at farm gate)	**10 956 358**	**49 612 279**	**46 313 245**	**47 208 934**	**55 314 659**
Producer Support Estimate (PSE)	**3 376 350**	**10 058 799**	**11 010 188**	**9 603 613**	**9 562 595**
Support based on commodity output	3 194 820	8 097 889	9 260 465	7 240 737	7 792 465
Market Price Support[1]	3 167 108	7 378 748	7 749 141	6 836 459	7 550 643
Payments based on output	27 712	719 141	1 511 323	404 279	241 823
Payments based on input use	180 958	1 874 349	1 490 041	2 362 876	1 770 130
Based on variable input use	130 669	1 136 001	1 035 400	1 355 873	1 016 730
with input constraints	112 678	719 036	768 588	641 401	747 118
Based on fixed capital formation	23 536	421 331	272 513	529 355	462 126
with input constraints	5 049	190 197	144 730	223 804	202 057
Based on on-farm services	26 753	317 017	182 128	477 648	291 274
with input constraints	0	122 847	94 673	206 441	67 426
Payments based on current A/An/R/I, production required	572	86 561	259 682	0	0
Based on Receipts / Income	0	0	0	0	0
Based on Area planted / Animal numbers	572	86 561	259 682	0	0
with input constraints	0	0	0	0	0
Payments based on non-current A/An/R/I, production required	0	0	0	0	0
Payments based on non-current A/An/R/I, production not required	0	0	0	0	0
With variable payment rates	0	0	0	0	0
with commodity exceptions	0	0	0	0	0
With fixed payment rates	0	0	0	0	0
with commodity exceptions	0	0	0	0	0
Payments based on non-commodity criteria	0	0	0	0	0
Based on long-term resource retirement	0	0	0	0	0
Based on a specific non-commodity output	0	0	0	0	0
Based on other non-commodity criteria	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0
Percentage PSE (%)	**22.6**	**16.6**	**19.8**	**16.1**	**13.8**
Producer NPC (coeff.)	**1.28**	**1.14**	**1.21**	**1.11**	**1.11**
Producer NAC (coeff.)	**1.29**	**1.20**	**1.25**	**1.19**	**1.16**
General Services Support Estimate (GSSE)	**319 320**	**1 858 234**	**2 138 354**	**1 625 823**	**1 810 525**
Agricultural knowledge and innovation system	80 888	567 185	378 562	566 341	756 651
Inspection and control	10 938	128 891	153 772	134 298	98 604
Development and maintenance of infrastructure	227 494	1 090 820	1 597 780	860 302	814 377
Marketing and promotion	0	70 805	8 239	64 881	139 293
Cost of public stockholding	0	0	0	0	0
Miscellaneous	0	533	0	0	1 600
Percentage GSSE (% of TSE)	**8.7**	**15.6**	**16.3**	**14.5**	**15.9**
Consumer Support Estimate (CSE)	**-3 106 812**	**-7 468 316**	**-8 547 715**	**-5 755 832**	**-8 101 400**
Transfers to producers from consumers	-2 873 678	-6 070 802	-7 594 218	-4 673 609	-5 944 578
Other transfers from consumers	-241 887	-1 441 945	-983 197	-1 115 995	-2 226 644
Transfers to consumers from taxpayers	0	0	0	0	0
Excess feed cost	8 753	44 432	29 701	33 771	69 823
Percentage CSE (%)	**-28.2**	**-15.1**	**-18.5**	**-12.2**	**-14.6**
Consumer NPC (coeff.)	**1.40**	**1.18**	**1.23**	**1.14**	**1.17**
Consumer NAC (coeff.)	**1.39**	**1.18**	**1.23**	**1.14**	**1.17**
Total Support Estimate (TSE)	**3 695 670**	**11 917 032**	**13 148 541**	**11 229 436**	**11 373 120**
Transfers from consumers	3 115 565	7 512 747	8 577 416	5 789 604	8 171 223
Transfers from taxpayers	821 992	5 846 231	5 554 323	6 555 827	5 428 541
Budget revenues	-241 887	-1 441 945	-983 197	-1 115 995	-2 226 644
Percentage TSE (% of GDP)	**3.0**	**1.6**	**1.9**	**1.5**	**1.4**
GDP deflator (1995-97=100)	**100**	**1 488**	**1 201**	**1 378**	**1 884**

Note: 1995-97 and 2013-15: unweighted averages. p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

A/An/R/I: Area planted/Animal numbers/Receipts/Income.

1. Market Price Support (MPS) is net of producer levies and excess feed cost. MPS commodities for Colombia are: maize, rice, sugar, milk, beef and veal, pig meat, poultry, eggs, bananas, plantains, coffee, palm oil and flowers.

Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database). DOI: dx.doi.org/10.1787/agr-pcse-data-en.

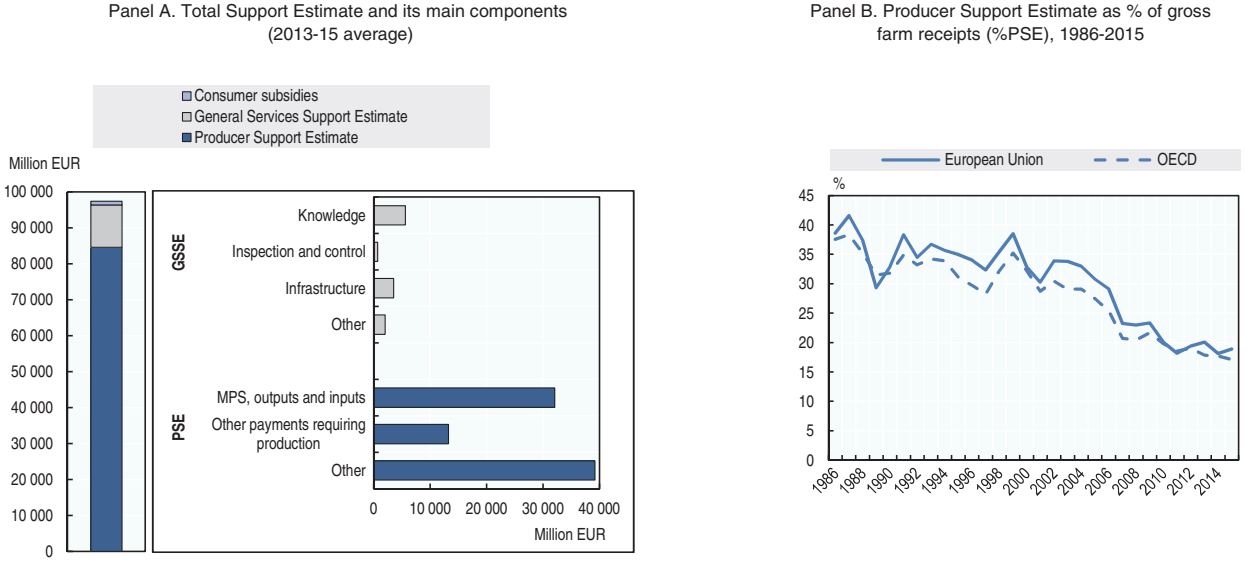
StatLink http://dx.doi.org/10.1787/888933375850

2.7. European Union

Support to agriculture

The European Union has gradually reduced its support to agriculture since the mid-1990s. New instruments, in particular payments that do not require production have gained weight. However production-linked support rose in 2015 as prices increased on average at the EU level in a context of lower world prices. An overwhelming share of support to the sector, as measured by the TSE, goes to producers (more than 85%). Investments in knowledge and infrastructures are the main components of general services to the sector at large, as measured by the GSSE.

Figure 2.7. **European Union: Level, structure and evolution of agricultural support**



Source: OECD (2016), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en.*

StatLink http://dx.doi.org/10.1787/888933374473

Main policy changes

The main policy developments are linked to the phasing out of the CAP 2007-13 and the progressive implementation of the CAP 2014-20. Also of importance were the end of the milk production quota in April 2015 and the introduction of a number of emergency measures aiming to offset the market and income effects of a ban imposed since 7 August 2014 by the Russian Federation on imports of selected agricultural products from the European Union.

Assessment and recommendations

- Policy reforms since 1986-88 have considerably reduced the level and improved the composition of support. Payments that do not require production have gained weight. They offer producers the flexibility to respond to market signals and to make their production choices independently from government intervention. The end of the milk production quota in 2015 and the sugar quota in 2017 are important further steps away from production and trade distorting measures. However policy instruments remain in some sectors that disconnect prices paid to producers from world market prices. In 2015, they accounted for 32% of support to producers as measured by the PSE.

- The share of payments requiring production has increased. Payments that encourage specific commodity production are not evenly used across member states; they influence production choices at the farm level and may distort competition. The CAP 2014-20's small farmers scheme and the flexibility to introduce higher payment rates for the first hectares have redistributive effects, they may slow structural adjustment. Thirty per cent of direct payments are conditional to farming practices targeted to the environment; while exceptions to cross-compliance and "greening" requirements are permitted. The efficiency of greening measures should be assessed against the ambition to enhance the enforcement of environmental stewardship.
- Market access for agricultural products has improved through bilateral agreements and the reduction of applied tariffs. However, import and export licensing, Tariff Rate Quotas (TRQs) and special safeguards continue to apply to a number of products.
- Substantial progress has been made in reducing the level of support and the share of production and trade distorting support. However the CAP 2014-20 partly reverses this trend. Commodity-specific payments have increased as EU member states have used greater flexibility to implement coupled payments. Amendments to the CAP should focus on offering European farmers a levelled playing field, deepening market orientation and better targeting support to improve the long-term productivity, sustainability and efficiency of the sector. The allocation of a greater share of the budget to research and innovation programmes under the Horizon 2020 is a move in the right direction.

Table 2.7. **European Union: Estimates of support to agriculture**

Million EUR

	1986-88	1995-97	2013-15	2013	2014	2015p
Total value of production (at farm gate)	**211 380**	**239 230**	**379 526**	**385 031**	**385 031**	**368 516**
***of which:** share of MPS commodities (%)*	75.0	73.7	74.3	74.9	74.4	73.7
Total value of consumption (at farm gate)	**188 226**	**230 175**	**368 198**	**382 577**	**364 920**	**357 096**
Producer Support Estimate (PSE)	**88 003**	**94 352**	**84 566**	**91 018**	**81 560**	**81 119**
Support based on commodity output	79 854	57 676	20 553	23 185	17 039	21 435
Market Price Support[1]	74 791	54 160	19 923	22 499	16 357	20 913
Payments based on output	5 063	3 516	630	686	681	522
Payments based on input use	4 544	6 487	11 545	11 709	11 220	11 706
Based on variable input use	872	2 292	4 384	4 400	4 512	4 238
with input constraints	0	0	48	44	54	45
Based on fixed capital formation	2 685	2 541	5 652	5 596	5 291	6 069
with input constraints	0	86	86	106	62	89
Based on on-farm services	987	1 654	1 510	1 713	1 417	1 399
with input constraints	82	427	6	8	8	3
Payments based on current A/An/R/I, production required	3 212	29 865	13 173	14 443	13 675	11 402
Based on Receipts / Income	132	64	828	1 002	710	772
Based on Area planted / Animal numbers	3 080	29 801	12 345	13 441	12 964	10 630
with input constraints	852	11 373	10 398	11 309	10 929	8 956
Payments based on non-current A/An/R/I, production required	0	0	98	100	112	83
Payments based on non-current A/An/R/I, production not required	0	24	36 788	38 790	37 068	34 504
With variable payment rates	0	0	0	0	0	0
with commodity exceptions	0	0	0	0	0	0
With fixed payment rates	0	24	36 788	38 790	37 068	34 504
with commodity exceptions	0	0	9 875	15 420	14 174	31
Payments based on non-commodity criteria	428	988	2 109	2 651	2 302	1 374
Based on long-term resource retirement	426	882	518	634	555	366
Based on a specific non-commodity output	2	106	1 522	1 931	1 670	964
Based on other non-commodity criteria	0	0	69	86	76	43
Miscellaneous payments	-35	-687	300	139	146	614
Percentage PSE (%)	**39.2**	**33.8**	**19.0**	**20.1**	**18.1**	**18.9**
Producer NPC (coeff.)	**1.70**	**1.33**	**1.06**	**1.07**	**1.05**	**1.07**
Producer NAC (coeff.)	**1.65**	**1.51**	**1.24**	**1.25**	**1.22**	**1.23**
General Services Support Estimate (GSSE)	**8 237**	**8 646**	**11 830**	**11 572**	**11 756**	**12 160**
Agricultural knowledge and innovation system	1 638	3 148	5 611	5 221	5 668	5 943
Inspection and control	176	234	686	639	701	717
Development and maintenance of infrastructure	1 200	1 687	3 519	3 601	3 540	3 417
Marketing and promotion	1 087	1 665	1 956	2 059	1 805	2 004
Cost of public stockholding	4 114	1 865	22	15	8	43
Miscellaneous	22	47	36	37	34	36
Percentage GSSE (% of TSE)	**8.2**	**8.1**	**12.2**	**11.1**	**12.5**	**12.9**
Consumer Support Estimate (CSE)	**-65 516**	**-47 051**	**-18 628**	**-21 189**	**-15 136**	**-19 560**
Transfers to producers from consumers	-75 427	-51 952	-19 839	-22 297	-15 905	-21 315
Other transfers from consumers	-1 501	-486	-432	-712	-322	-262
Transfers to consumers from taxpayers	4 515	4 011	1 040	1 517	910	693
Excess feed cost	6 897	1 376	603	303	182	1 325
Percentage CSE (%)	**-35.7**	**-20.8**	**-5.1**	**-5.6**	**-4.2**	**-5.5**
Consumer NPC (coeff.)	**1.70**	**1.30**	**1.06**	**1.06**	**1.05**	**1.06**
Consumer NAC (coeff.)	**1.56**	**1.26**	**1.05**	**1.06**	**1.04**	**1.06**
Total Support Estimate (TSE)	**100 755**	**107 010**	**97 435**	**104 107**	**94 227**	**93 972**
Transfers from consumers	76 928	52 438	20 271	23 009	16 228	21 577
Transfers from taxpayers	25 327	55 057	77 596	81 809	78 321	72 656
Budget revenues	-1 501	-486	-432	-712	-322	-262
Percentage TSE (% of GDP)	**2.6**	**1.5**	**0.7**	**0.8**	**0.7**	**0.7**
GDP deflator (1986-88=100)	**100**	**139**	**189**	**187**	**189**	**191**

Note: 1986-88, 1995-97 and 2013-15: unweighted averages. p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

A/An/R/I: Area planted/Animal numbers/Receipts/Income.

EU12 for 1986-88; EU15 for 1995-97; EU27 for 2012-13; and EU28 from 2014 when available.

1. Market Price Support (MPS) is net of producer levies and excess feed cost. MPS commodities for the European Union are: wheat, maize, barley, oats, rice, rapeseed, sunflower, soybean, sugar, milk, beef and veal, sheep meat, pig meat, poultry, eggs, potatoes, tomatoes, plants and flowers, and wine.

Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database). DOI: dx.doi.org/10.1787/agr-pcse-data-en.

StatLink http://dx.doi.org/10.1787/888933375865

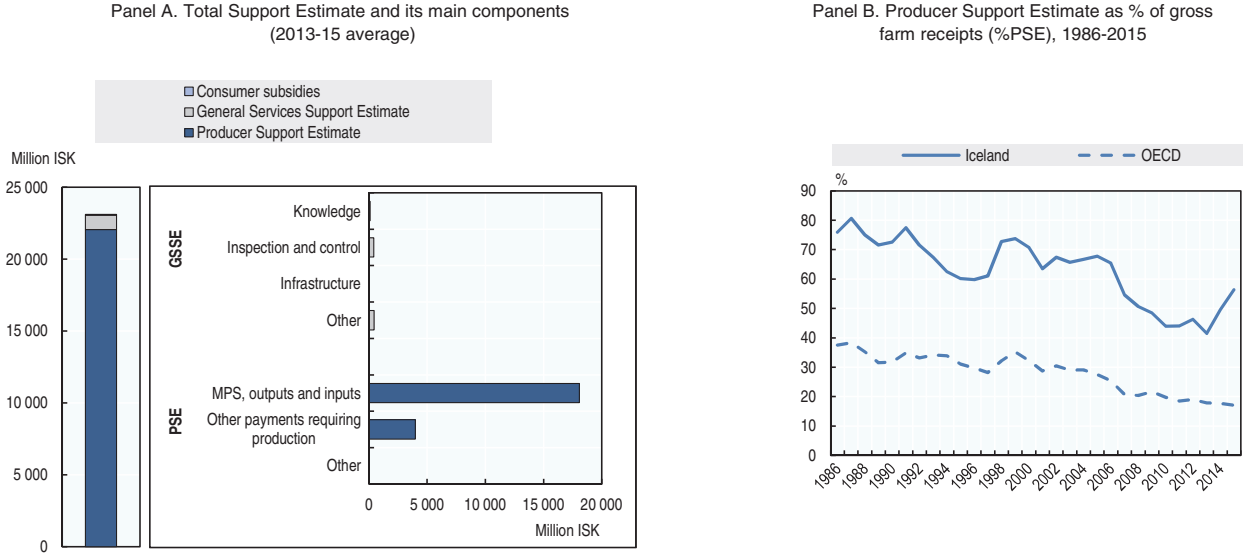
2.8. Iceland

Support to agriculture

Iceland's level of support remains among the highest within the OECD, although it has fallen significantly notably during the second half of the last decade due to higher world market prices and a strong devaluation of the Icelandic Króna. Reforms of the agricultural policies in Iceland have been limited, with a shift towards more decoupled payments in the sheep meat sector in the mid-1990s and the establishment of a market for dairy quotas. Nonetheless, due to falling international reference prices for dairy products, and to a lesser extent pig meat, support levels have picked up again in 2014 and 2015 to reach their highest level in almost ten years. The direct support to farmers (PSE) is the dominant part of the total support to agriculture. The Total Support Estimate has averaged -1.1% of the country's GDP in recent years. In contrast, support to general services corresponded to just over 4% of the total support, with much of it related to expenditures for inspection and control systems through the Agricultural Authority of Iceland.

Iceland continues to provide agricultural support through significant market price support (MPS), maintained by border measures, and through direct payments based on payment entitlements which are directly or indirectly coupled with production factors. Although it has fallen by about half over the period analysed in this report, the share of MPS in the total support to farmers continues to represent around 40% and has increased to 55% in 2015. Output payments for milk producers and the more decoupled payments to sheep meat producers represent most of the remaining PSE. As a consequence, three-quarters of farm support is provided through some of the most distorting forms, largely preventing farmers from receiving market signals and responding to them.

Figure 2.8. **Iceland: Level, structure and evolution of agricultural support**



Source: OECD (2016), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en.*

StatLink http://dx.doi.org/10.1787/888933374485

Main policy changes

Within the continued application of the current multi-year agreements between the Government of Iceland and the Farmer's Association, changes to the agricultural policy are limited. Responding to increasing domestic demand, the milk production quota was increased by some 20% between 2013 and 2015. During that period, a number of production levies for producers of milk, sheep meat and horse meat were abolished. Finally, new regulations on the welfare of livestock aim to ensure the appropriate holding, care and medical treatment of livestock animals.

Assessment and recommendations

- Iceland continues to provide high levels of agricultural support in forms known to distort agricultural production and trade and to prevent farmers from receiving market signals and responding to them. To reduce the level of support and its distortive effects in a sustainable manner, policies need to be changed away from border protection and in favour of measures less linked to production. The payments to sheep producers introduced in the mid-1990s are a step in this direction, even though some sheep holding needs to be maintained to remain eligible.
- Reforms need to efficiently target explicit policy objectives, including the protection of the environment and the conservation of natural resources, while reducing market distortions. The new animal welfare regulations are a good example, but an increasing share of support to farmers should be directly linked to the avoidance of negative externalities and the provision of public goods.
- More emphasis should also be given to a well-functioning agricultural knowledge and information system, for which public expenditures have been declining over the past decade.

Table 2.8. **Iceland: Estimates of support to agriculture**

Million ISK

	1986-88	1995-97	2013-15	2013	2014	2015p
Total value of production (at farm gate)	**9 644**	**10 326**	**33 463**	**32 004**	**33 956**	**34 429**
***of which:** share of MPS commodities (%)*	80.3	73.5	80.5	79.9	79.4	82.1
Total value of consumption (at farm gate)	**8 388**	**9 706**	**28 852**	**28 274**	**29 364**	**28 916**
Producer Support Estimate (PSE)	**7 909**	**8 825**	**22 062**	**17 901**	**22 401**	**25 884**
Support based on commodity output	7 374	7 645	16 801	12 684	17 177	20 542
Market Price Support[1]	7 307	4 533	10 755	6 762	11 141	14 361
Payments based on output	66	3 112	6 046	5 922	6 036	6 180
Payments based on input use	536	337	1 278	1 301	1 270	1 264
Based on variable input use	129	0	269	228	305	275
with input constraints	0	0	0	0	0	0
Based on fixed capital formation	233	126	550	609	513	528
with input constraints	0	0	0	0	0	0
Based on on-farm services	174	210	459	464	452	461
with input constraints	0	0	0	0	0	0
Payments based on current A/An/R/I, production required	-49	-181	168	192	118	192
Based on Receipts / Income	-49	-181	-476	-436	-529	-463
Based on Area planted / Animal numbers	0	0	644	628	647	656
with input constraints	0	0	0	0	0	0
Payments based on non-current A/An/R/I, production required	0	1 011	3 815	3 724	3 836	3 886
Payments based on non-current A/An/R/I, production not required	48	14	0	0	0	0
With variable payment rates	0	0	0	0	0	0
with commodity exceptions	0	0	0	0	0	0
With fixed payment rates	48	14	0	0	0	0
with commodity exceptions	48	14	0	0	0	0
Payments based on non-commodity criteria	0	0	0	0	0	0
Based on long-term resource retirement	0	0	0	0	0	0
Based on a specific non-commodity output	0	0	0	0	0	0
Based on other non-commodity criteria	0	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0	0
Percentage PSE (%)	**77.2**	**60.4**	**49.1**	**41.5**	**49.5**	**56.3**
Producer NPC (coeff.)	**4.22**	**2.32**	**1.76**	**1.50**	**1.75**	**2.02**
Producer NAC (coeff.)	**4.44**	**2.52**	**1.99**	**1.71**	**1.98**	**2.29**
General Services Support Estimate (GSSE)	**731**	**927**	**989**	**949**	**989**	**1 029**
Agricultural knowledge and innovation system	187	327	104	109	99	105
Inspection and control	37	88	411	384	420	429
Development and maintenance of infrastructure	91	187	27	23	24	34
Marketing and promotion	58	75	44	40	41	51
Cost of public stockholding	359	249	403	393	405	410
Miscellaneous	0	0	0	0	0	0
Percentage GSSE (% of TSE)	**6.8**	**9.1**	**4.4**	**5.0**	**4.2**	**3.8**
Consumer Support Estimate (CSE)	**-4 566**	**-4 012**	**-9 904**	**-6 504**	**-10 346**	**-12 862**
Transfers to producers from consumers	-6 421	-4 340	-9 969	-6 568	-10 412	-12 928
Other transfers from consumers	-51	-35	0	0	0	0
Transfers to consumers from taxpayers	1 906	363	65	63	65	66
Excess feed cost	0	0	0	0	0	0
Percentage CSE (%)	**-70.4**	**-42.9**	**-34.3**	**-23.1**	**-35.3**	**-44.6**
Consumer NPC (coeff.)	**4.44**	**1.82**	**1.55**	**1.30**	**1.55**	**1.81**
Consumer NAC (coeff.)	**3.50**	**1.75**	**1.55**	**1.30**	**1.55**	**1.80**
Total Support Estimate (TSE)	**10 546**	**10 115**	**23 116**	**18 913**	**23 455**	**26 979**
Transfers from consumers	6 472	4 375	9 969	6 568	10 412	12 928
Transfers from taxpayers	4 124	5 775	13 147	12 346	13 044	14 051
Budget revenues	-51	-35	0	0	0	0
Percentage TSE (% of GDP)	**5.0**	**2.1**	**1.1**	**1.0**	**1.2**	**1.2**
GDP deflator (1986-88=100)	**100**	**211**	**487**	**465**	**483**	**514**

Note: 1986-88, 1995-97 and 2013-15: unweighted averages. p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

A/An/R/I: Area planted/Animal numbers/Receipts/Income.

1. Market Price Support (MPS) is net of producer levies and excess feed cost. MPS commodities for Iceland are: milk, beef and veal, sheep meat, wool, pig meat, poultry and eggs.

Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database). DOI: dx.doi.org/10.1787/agr-pcse-data-en.

StatLink http://dx.doi.org/10.1787/888933375878

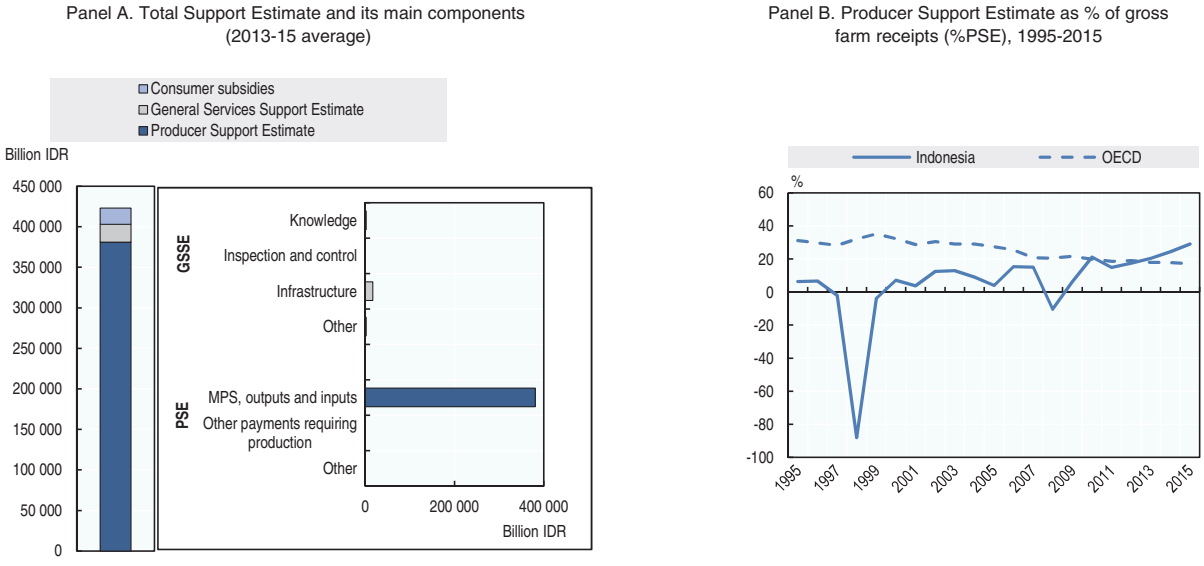
2.9. Indonesia

Support to agriculture

Indonesia's current agricultural policy settings were put in place in 2012 with the implementation of a series of reforms accompanying the new Food Law. These reforms saw a rise in the importance of food sovereignty and food self-reliance as the guiding principles underpinning agricultural policy. In practical terms, this has led to the implementation of policies and programmes to achieve self-sufficiency (a long-standing policy) in a number of products – those of rice, maize, soybeans, sugar and beef.

Producer support to agriculture in Indonesia has increased significantly in recent years. The pressures to increase self-sufficiency through market interventions have seen significant gaps appear between domestic and world market prices – these gaps have been compounded by the recent moderating of world market prices. With the vast majority of support provided in the form of market price support, Indonesia's percentage PSE rose from 20% of gross farm receipts in 2013 to 29% in 2015. Due to agriculture's large share in the domestic economy, total support to agriculture (%TSE) is also large at 4% – the highest of all countries examined. In contrast, support provided in the form of payments to general services to agriculture (GSSE) is relative low, and between 2013-15 average 5.2% of TSE.

Figure 2.9. **Indonesia: Level, structure and evolution of agricultural support**



Source: OECD (2016), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en.*

StatLink *http://dx.doi.org/10.1787/888933374491*

Main policy changes

During 2015-16, Indonesia has maintained the main features of its agricultural policy settings that were adopted in 2012. Market price support delivered through domestic and trade policy settings, along with budgetary transfers for variable inputs (mainly in the form of subsidies to fertiliser, seeds and credit) have been the main form of support provided to producers. The Government maintains minimum purchase prices for sugar, soybeans and paddy rice. Similarly, Indonesia has maintained its export tax arrangements related to palm oil and cocoa, but in 2015, announced plans to increase the biofuels mandate to blend 20% palm biodiesel, up from 15%.

Fertiliser subsidies remain the most significant component of budgetary outlays provided to the sector. Funding for these has increased, with some of the savings generated by reforms to the country's fuel subsidy arrangements being channelled into this policy area. Government investment in irrigation infrastructure also continued to grow in 2015 as the Government of Indonesia has continued its push to improve the country's irrigation infrastructure. Much of this is targeted towards rice production.

For rice, BULOG maintains its market operations and purchasing functions. However, the effects of trade barriers associated with Indonesia's self-sufficiency policies have maintained domestic rice prices consistently above international prices. The market price support schemes for rice remain the most important contributor to the longer run significant increases in the level of support in Indonesia, as measured by PSEs, explaining close to 40% of the total PSE in this country in 2015. To counter some of these price effects, BULOG has continued to distribute rice within the RASKIN system. In 2015, this entailed large budgetary transfers to support the system of close to IDR 21 trillion (USD 1.7 billion), up from close to IDR 19 trillion spent in 2014 (USD 1.4 billion).

Assessment and recommendations

The current direction of Indonesian agricultural policy has seen significant price gaps appear between domestic and international markets. The policy focus has been on self-sufficiency as a tool to achieve food security and food accessibility. However, the observed price effects are likely to be working against some of the main objectives that underpin the Food Law of 2012. And while the RASKIN programme has been put in place to improve food accessibility for poor households, recent OECD analysis has brought into question the effectiveness of this programme in improving food security as measured by rates of undernourishment (OECD, 2015).

A number of reforms to the current policy setting would, if implemented, better situate Indonesian agriculture to contribute to improvements in food security, improve its productivity performance and to increase the accessibility of food to citizens.

- To ease dependence on rice supplies, and deliver greater improvements in food security, Indonesia might consider reforming the RASKIN system through replacing the in-kind rice distribution with conditional cash transfers.
- Fertilizer subsidies have been found to be costly and the extent to which benefits accrue to farmers has been questioned. A more efficient scheme would be to convert these subsidies to decoupled payments per unit of land as has been progressively implemented in China.
- A greater focus should be placed on policies that combat poverty and stimulate domestic productivity through investments in infrastructure, the innovation system and through easing constraints on private investment in agriculture. Budgetary savings from reduced input subsidises could be re-allocated to reinforce Indonesia's Agricultural Innovation System and to improve long-term agricultural productivity.
- Indonesia applies a growing number of administrative requirements on agro-food imports related to food safety, quarantine, product standards and labelling. The combination of these requirements, uneven enforcement and poor transparency over changing rules is adding to trade costs. Ensuring that requirements are set on a scientific basis and improving transparency and consistency in application should help ease these growing costs.

Table 2.9. **Indonesia: Estimates of support to agriculture**

Million IDR

	1995-97	2013-15	2013	2014	2015p
Total value of production (at farm gate)	**82 758 356**	**1 500 805 695**	**1 365 194 458**	**1 524 403 609**	**1 612 819 018**
of which: *share of MPS commodities (%)*	68.3	61.8	62.7	64.3	58.5
Total value of consumption (at farm gate)	**78 785 517**	**1 310 545 924**	**1 242 333 736**	**1 282 746 686**	**1 406 557 350**
Producer Support Estimate (PSE)	**2 916 704**	**381 145 823**	**283 755 274**	**378 198 030**	**481 484 164**
Support based on commodity output	2 140 286	348 536 563	258 739 919	346 595 459	440 274 309
Market Price Support[1]	2 140 286	348 536 563	258 739 919	346 595 459	440 274 309
Payments based on output	0	0	0	0	0
Payments based on input use	769 754	32 013 831	24 532 409	30 602 570	40 906 513
Based on variable input use	429 579	26 045 066	19 798 916	23 523 189	34 813 093
with input constraints	0	0	0	0	0
Based on fixed capital formation	310 214	5 649 921	4 636 261	6 977 732	5 335 770
with input constraints	7 873	50 308	64 032	86 358	534
Based on on-farm services	29 961	318 843	97 232	101 649	757 650
with input constraints	0	0	0	0	0
Payments based on current A/An/R/I, production required	6 664	595 430	482 947	1 000 000	303 342
Based on Receipts / Income	6 664	595 430	482 947	1 000 000	303 342
Based on Area planted / Animal numbers	0	0	0	0	0
with input constraints	0	0	0	0	0
Payments based on non-current A/An/R/I, production required	0	0	0	0	0
Payments based on non-current A/An/R/I, production not required	0	0	0	0	0
With variable payment rates	0	0	0	0	0
with commodity exceptions	0	0	0	0	0
With fixed payment rates	0	0	0	0	0
with commodity exceptions	0	0	0	0	0
Payments based on non-commodity criteria	0	0	0	0	0
Based on long-term resource retirement	0	0	0	0	0
Based on a specific non-commodity output	0	0	0	0	0
Based on other non-commodity criteria	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0
Percentage PSE (%)	**3.6**	**24.6**	**20.4**	**24.3**	**29.1**
Producer NPC (coeff.)	**1.03**	**1.32**	**1.25**	**1.32**	**1.40**
Producer NAC (coeff.)	**1.04**	**1.33**	**1.26**	**1.32**	**1.41**
General Services Support Estimate (GSSE)	**1 140 356**	**22 001 525**	**18 408 549**	**20 183 854**	**27 412 174**
Agricultural knowledge and innovation system	248 204	2 454 514	2 371 251	2 200 154	2 792 138
Inspection and control	59 838	678 452	736 876	587 483	710 998
Development and maintenance of infrastructure	829 971	16 842 306	12 851 822	14 749 051	22 926 044
Marketing and promotion	1 884	244 211	183 768	167 287	381 579
Cost of public stockholding	0	1 734 568	2 206 013	2 433 247	564 445
Miscellaneous	459	47 474	58 820	46 632	36 969
Percentage GSSE (% of TSE)	**..**	**5.2**	**5.7**	**4.8**	**5.2**
Consumer Support Estimate (CSE)	**-2 504 026**	**-390 091 329**	**-313 529 318**	**-380 145 718**	**-476 598 951**
Transfers to producers from consumers	-2 490 741	-387 687 989	-299 168 018	-383 000 831	-480 895 117
Other transfers from consumers	-26 503	-34 228 186	-41 385 623	-30 547 344	-30 751 590
Transfers to consumers from taxpayers	50 433	20 034 504	20 310 112	18 800 000	20 993 400
Excess feed cost	-37 216	11 790 342	6 714 211	14 602 458	14 054 356
Percentage CSE (%)	**-3.3**	**-30.0**	**-25.7**	**-30.1**	**-34.4**
Consumer NPC (coeff.)	**1.04**	**1.48**	**1.38**	**1.48**	**1.57**
Consumer NAC (coeff.)	**1.04**	**1.43**	**1.35**	**1.43**	**1.52**
Total Support Estimate (TSE)	**4 107 493**	**423 181 852**	**322 473 935**	**417 181 883**	**529 889 738**
Transfers from consumers	2 517 244	421 916 175	340 553 641	413 548 176	511 646 707
Transfers from taxpayers	1 616 752	35 493 863	23 305 917	34 181 052	48 994 621
Budget revenues	-26 503	-34 228 186	-41 385 623	-30 547 344	-30 751 590
Percentage TSE (% of GDP)	**0.8**	**4.0**	**3.4**	**4.0**	**4.6**
GDP deflator (1995-97=100)	**100**	**364**	**356**	**363**	**373**

.. Not available.

Note: 1995-97 and 2013-15: unweighted averages. p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

A/An/R/I: Area planted/Animal numbers/Receipts/Income.

1. Market Price Support (MPS) is net of producer levies and excess feed cost. MPS commodities for Indonesia are: palm oil, cocoa beans, cassava, bananas, rubber, coffee, maize, rice, soybean, sugar, milk, beef and veal, pig meat, poultry and eggs.

Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database). DOI: dx.doi.org/10.1787/agr-pcse-data-en.

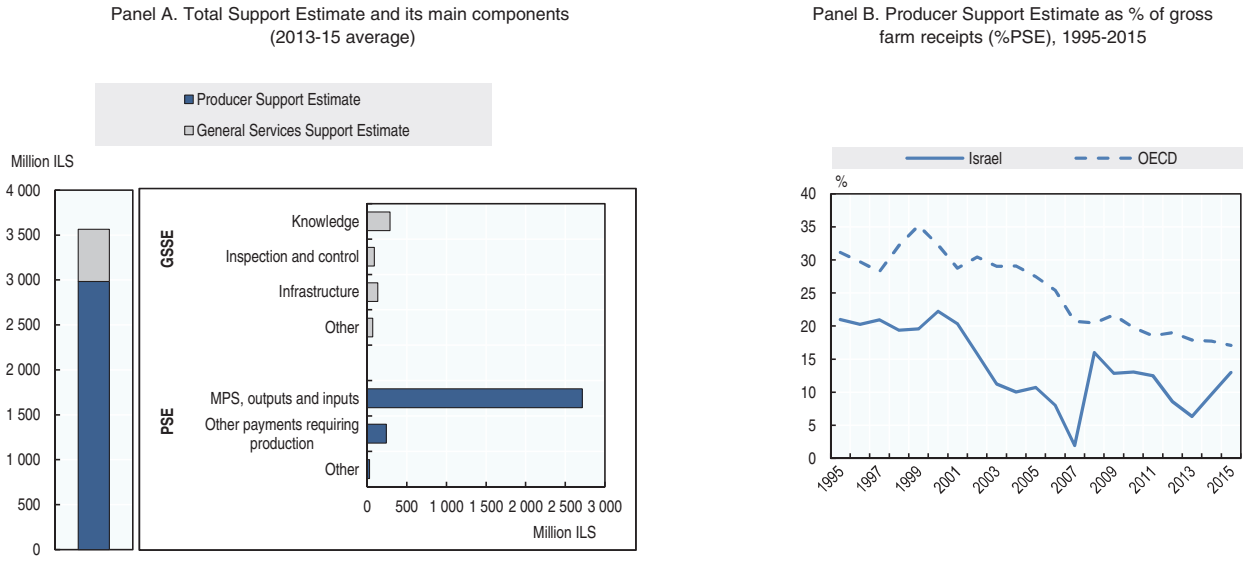
StatLink http://dx.doi.org/10.1787/888933375885

2.10. Israel

Support to agriculture

In less than 20 years, producer support in Israel has been halved, and is currently seven percentage points below the OECD average (Figure 2.10). Potentially most distorting support still dominates and represents 86% of support provided to producers. Some commodities continue to be subject to price controls. As domestic prices have not come down to the same degree as international prices in recent years the price gap with international markets widened and producer support rose. Total support to agriculture (TSE) was 0.3% of GDP in 2013-15. Direct support to producers (PSE) accounts for 9.7% of the TSE and this support is composed predominantly of payments based on output (including MPS) and input use. The share of the General Services Support Estimate (GSSE) in total support has declined but payments financing the Agricultural Knowledge and Innovation System have increased over time and now represent more than half of GSSE expenditure in recent years.

Figure 2.10. **Israel: Level, structure and evolution of agricultural support**



Note: The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD (2016), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en.*

StatLink *http://dx.doi.org/10.1787/888933374509*

While the level of price distortion for all products has fallen over the long term (as measured by the NPC), prices of selected products continue to be regulated by the government and trade barriers applied at the border remain high. During the last two decades, the share of MPS in total support has increased from 56% to 60%. However, the increase in MPS was offset by a reduction in payments based on input, keeping the share of potentially most distorting support unchanged over the period.

Main policy changes

Due to the dissolution of the Israeli Parliament in December 2014, the state budget was not approved until the 4th quarter of 2015 and most reforms announced in the previous fiscal year were kept on hold for the major part of this year. Despite this, there were some

changes over the period. In early 2015, two laws that are expected to increase competition among both wholesalers and retailers came in force. The Israeli government also continued its efforts to reduce support to agriculture by increasing the target price of water for agricultural use and by reducing guaranteed prices for a number of commodities. However, for some products guaranteed prices were reduced by less than the fall in international prices over the same period. Thus, the positive price differential for these products increased considerably. This is the dominant factor behind the overall rise in support for Israeli agriculture in 2015. In addition, there was an increase in subsidies for insurance schemes for farmers following the decision to extend the eligibility criteria for these programs. In 2014, the Israeli government announced its commitment to gradually increase duty-free quotas on a range of dairy products. In anticipation of the decision to increase import quotas, compensatory measures for producers were proposed in June 2015.

Assessment and recommendations

- Since 1995, Israel has reduced support to agriculture as a result of domestic policy reforms and lower border protection resulting from bilateral trade liberalisation agreements. Recent world price declines have led to an increase in support in 2015.
- While the level of support to agriculture has fallen over the long term, its composition remains trade- and production distorting. This mostly reflects the continued high share of support to farm inputs and high border protection for agricultural commodities, which pushes domestic prices above international levels.
- Transfers to farmers from consumers through market price support policies, sustained by a complex system of border protection measures should further be reduced.
- There is a wide range of policy reforms that could be undertaken to improve the efficiency of the Israeli agricultural sector and its international competitiveness while reducing the cost to taxpayers and consumers. In addition to structural reforms, such as diminishing administrative burdens on agricultural land market transactions, Israel could implement and extend the reforms announced in 2012 aimed at reducing and simplifying customs duties.
- The environmental performance of agriculture has been mixed and can be further improved, in particular with regard to water management. The recent implementation of a multiyear water quota for the farming sector combined with the increase in fees for fresh water should contribute to improving water use efficiency. However, the level of water price support remained high in 2015 and the reforms may prove to be insufficient to achieve the objectives agreed between the government and producers to fully recover average water supply costs.

Table 2.10. **Israel: Estimates of support to agriculture**

Million ILS

	1995-97	2013-15	2013	2014	2015p
Total value of production (at farm gate)	**11 651**	**30 068**	**30 191**	**30 005**	**30 007**
***of which:** share of MPS commodities (%)*	72.4	79.0	77.9	78.3	80.9
Total value of consumption (at farm gate)	**9 274**	**22 483**	**22 241**	**22 594**	**22 616**
Producer Support Estimate (PSE)	**2 604**	**2 983**	**1 958**	**2 977**	**4 014**
Support based on commodity output	1 755	2 229	1 303	2 247	3 137
Market Price Support[1]	1 691	2 165	1 235	2 183	3 077
Payments based on output	65	64	68	63	61
Payments based on input use	688	484	399	528	524
Based on variable input use	457	354	282	401	379
with input constraints	0	0	0	0	0
Based on fixed capital formation	183	75	58	89	78
with input constraints	0	0	0	0	0
Based on on-farm services	48	55	59	39	67
with input constraints	0	0	0	0	0
Payments based on current A/An/R/I, production required	102	241	222	178	323
Based on Receipts / Income	97	205	201	136	278
Based on Area planted / Animal numbers	5	36	22	42	44
with input constraints	0	0	0	0	0
Payments based on non-current A/An/R/I, production required	0	0	0	0	0
Payments based on non-current A/An/R/I, production not required	56	29	34	24	30
With variable payment rates	0	29	34	24	30
with commodity exceptions	0	0	0	0	0
With fixed payment rates	56	0	0	0	0
with commodity exceptions	0	0	0	0	0
Payments based on non-commodity criteria	0	0	0	0	0
Based on long-term resource retirement	0	0	0	0	0
Based on a specific non-commodity output	0	0	0	0	0
Based on other non-commodity criteria	0	0	0	0	0
Miscellaneous payments	2	0	0	0	0
Percentage PSE (%)	**20.7**	**9.7**	**6.3**	**9.7**	**13.0**
Producer NPC (coeff.)	**1.19**	**1.08**	**1.05**	**1.08**	**1.11**
Producer NAC (coeff.)	**1.26**	**1.11**	**1.07**	**1.11**	**1.15**
General Services Support Estimate (GSSE)	**390**	**582**	**607**	**603**	**537**
Agricultural knowledge and innovation system	155	289	267	299	302
Inspection and control	56	91	83	95	95
Development and maintenance of infrastructure	11	133	192	138	69
Marketing and promotion	59	3	5	1	3
Cost of public stockholding	108	55	55	58	51
Miscellaneous	0	12	7	12	17
Percentage GSSE (% of TSE)	**13.0**	**17.4**	**23.7**	**16.8**	**11.8**
Consumer Support Estimate (CSE)	**-2 336**	**-2 379**	**-1 540**	**-2 558**	**-3 037**
Transfers to producers from consumers	-1 843	-2 035	-1 200	-2 102	-2 803
Other transfers from consumers	-513	-361	-368	-492	-223
Transfers to consumers from taxpayers	0	0	0	0	0
Excess feed cost	20	18	28	36	-12
Percentage CSE (%)	**-25.1**	**-10.6**	**-6.9**	**-11.3**	**-13.4**
Consumer NPC (coeff.)	**1.34**	**1.12**	**1.08**	**1.13**	**1.15**
Consumer NAC (coeff.)	**1.34**	**1.12**	**1.07**	**1.13**	**1.16**
Total Support Estimate (TSE)	**2 994**	**3 565**	**2 565**	**3 581**	**4 551**
Transfers from consumers	2 355	2 396	1 568	2 594	3 026
Transfers from taxpayers	1 151	1 530	1 365	1 479	1 748
Budget revenues	-513	-361	-368	-492	-223
Percentage TSE (% of GDP)	**0.9**	**0.3**	**0.2**	**0.3**	**0.4**
GDP deflator (1995-97=100)	**327**	**535**	**526**	**531**	**547**

Note: 1995-97 and 2013-15: unweighted averages. p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

A/An/R/I: Area planted/Animal numbers/Receipts/Income.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

1. Market Price Support (MPS) is net of producer levies and excess feed cost. MPS commodities for Israel are: wheat, cotton, peanuts, tomatoes, peppers, potatoes, avocados, bananas, oranges, grapefruit, grapes, apples, milk, beef and veal, sheep meat, poultry and eggs.

Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database). DOI: dx.doi.org/10.1787/agr-pcse-data-en.

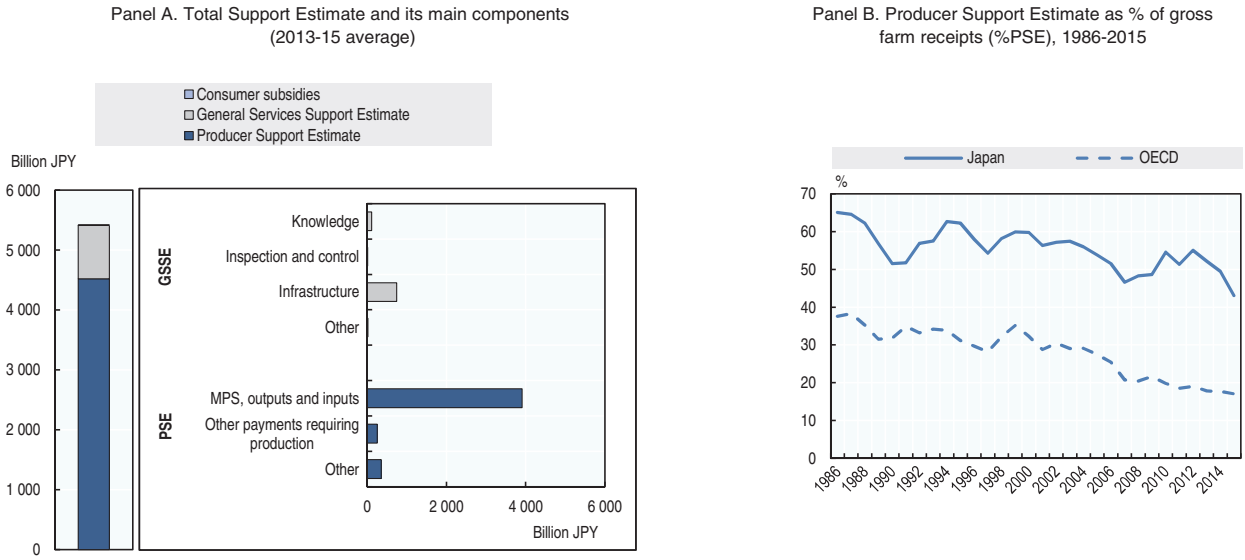
StatLink http://dx.doi.org/10.1787/888933375892

2.11. Japan

Support to agriculture

Japan has gradually reduced its support to agriculture but the change is relatively moderate. Support remains high and averaged 48% of gross farm receipts in 2013-15 – almost three times the OECD average. Market price support (MPS) remains the main element of producer support and is sustained by trade barriers, in particular for rice. The total support estimate to agriculture (TSE) was around 1% of GDP in the most recent years, mostly composed of support to farmers (PSE). Less than one-sixth of total support is devoted to expenditures on General Services Support (GSSE) for the sector as a whole. Around 80% of the GSSE are payments for the development and maintenance of infrastructure.

Figure 2.11. **Japan: Level, structure and evolution of agricultural support**



Source: OECD (2016), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en.*
StatLink *http://dx.doi.org/10.1787/888933374511*

Main policy changes

Japan adopted a new Basic Plan on Food Agriculture and Rural Areas in 2015, which lays out the strategic policy goals and plans for the next 10 years. The plan sets food self-sufficiency targets for the year 2025 on a calorie supply basis (45%) and on a production value basis (73%). Those lie above current ratios of 39% and 64% respectively. Developing the economic potential of agriculture and food processing is a main orientation of the plan and it stresses encouraging exports, innovation, and farmland protection. It also aims at instituting a voluntary scheme where farmers and the government would work jointly towards better balancing of demand and supply of rice and which would replace the current rice supply management system.

The area-based income support payment for upland crops, which was introduced in 2007, was recoupled with current area in 2015, while it was based on past area before 2014.

Japan and 11 other Pacific Rim nations concluded the Trans-Pacific Partnership (TPP) negotiations in late 2015. Under the agreement, market access of agricultural products, including for rice, pork, dairy, beef, wheat, and sugar, will be improved.

Assessment and recommendations

- Japan began implementing policy reforms based on the agricultural reform plan announced in 2013. These reforms present a mixed picture. While phasing out of the administrative allocation of rice production by the 2018 crop year is an important step to give farmers more freedom to respond to market signals, the remaining incentives to produce diversion crops, such as rice for feed and manufacturing, through commodity specific payments, will keep the price of rice high. Further efforts are needed to gradually reduce those measures and narrow the gap between domestic and international prices of rice, and to reduce production cost by facilitating farm size growth.
- Japan has made commitments to reduce border measures of some commodities under the TPP framework. Once implemented, this will be a move towards more market-orientation and has a potential to strengthen the competitiveness of the sector. However, Japan proposed various domestic measures to cushion the adverse effects of TPP on domestic producers such as revision of the income stabilisation programme for livestock producers and the purchase of rice for stock. These measures should be transitory and should be operated to further promote structural change and productivity growth of the sector.
- Japan has made significant efforts to promote land consolidation to "business farmers" certified by authorities. The establishment of the farmland bank, various types of supports for which only business farms are eligible, and the payment for young farmers could contribute structural change and productivity growth, but other factors that hamper the growth of efficient farms still remain in place. Land-use regulation should be made more transparent, with a more predictable framework for conversion from farmland to non-farmland use. Tax concessions on idled land should be reduced, so as to encourage its productive use.
- Japan's current agricultural innovation system is characterised by a traditional top-down approach, where scientists in the public sector develop new technologies that are disseminated by extension officers to farmers. The agricultural innovation system should evolve to meet the needs of business farmers in a more inclusive, interactive and participatory approach, including reforms to public R&D funding, extension services and agricultural education.

Table 2.11. **Japan: Estimates of support to agriculture**

Billion JPY

	1986-88	1995-97	2013-15	2013	2014	2015p
Total value of production (at farm gate)	**10 610**	**10 128**	**8 428**	**8 467**	**8 364**	**8 452**
of which: *share of MPS commodities (%)*	68.4	67.9	66.0	66.4	65.4	66.3
Total value of consumption (at farm gate)	**14 298**	**15 070**	**12 200**	**12 185**	**12 734**	**11 682**
Producer Support Estimate (PSE)	**7 267**	**6 239**	**4 520**	**4 902**	**4 603**	**4 055**
Support based on commodity output	6 740	5 822	3 761	4 156	3 854	3 274
Market Price Support[1]	6 519	5 651	3 578	3 973	3 669	3 092
Payments based on output	221	171	183	182	185	181
Payments based on input use	299	298	150	156	164	131
Based on variable input use	149	124	51	51	51	51
with input constraints	0	0	0	0	0	0
Based on fixed capital formation	129	153	68	74	81	49
with input constraints	0	0	0	0	0	0
Based on on-farm services	21	21	31	31	31	30
with input constraints	0	0	0	0	0	0
Payments based on current A/An/R/I, production required	0	0	252	238	204	314
Based on Receipts / Income	0	0	76	72	75	80
Based on Area planted / Animal numbers	0	0	176	166	129	234
with input constraints	0	0	42	8	8	111
Payments based on non-current A/An/R/I, production required	0	0	0	0	0	0
Payments based on non-current A/An/R/I, production not required	228	119	356	352	381	336
With variable payment rates	0	0	0	0	0	0
with commodity exceptions	0	0	0	0	0	0
With fixed payment rates	228	119	356	352	381	336
with commodity exceptions	228	119	258	216	250	308
Payments based on non-commodity criteria	0	0	0	0	0	0
Based on long-term resource retirement	0	0	0	0	0	0
Based on a specific non-commodity output	0	0	0	0	0	0
Based on other non-commodity criteria	0	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0	0
Percentage PSE (%)	**64.0**	**58.1**	**48.2**	**52.2**	**49.5**	**43.1**
Producer NPC (coeff.)	**2.65**	**2.31**	**1.79**	**1.93**	**1.82**	**1.61**
Producer NAC (coeff.)	**2.78**	**2.40**	**1.94**	**2.09**	**1.98**	**1.76**
General Services Support Estimate (GSSE)	**1 266**	**2 054**	**894**	**964**	**903**	**815**
Agricultural knowledge and innovation system	75	95	115	125	114	106
Inspection and control	8	10	11	12	11	11
Development and maintenance of infrastructure	1 118	1 858	746	807	756	675
Marketing and promotion	22	27	7	6	7	7
Cost of public stockholding	43	63	15	15	15	16
Miscellaneous	0	0	0	0	0	0
Percentage GSSE (% of TSE)	**14.9**	**24.7**	**16.5**	**16.4**	**16.4**	**16.7**
Consumer Support Estimate (CSE)	**-8 910**	**-8 080**	**-4 932**	**-5 232**	**-5 068**	**-4 496**
Transfers to producers from consumers	-6 423	-5 603	-3 579	-3 972	-3 670	-3 094
Other transfers from consumers	-2 483	-2 503	-1 358	-1 265	-1 403	-1 406
Transfers to consumers from taxpayers	-16	26	1	1	1	1
Excess feed cost	11	0	4	5	4	3
Percentage CSE (%)	**-62.3**	**-53.6**	**-40.4**	**-42.9**	**-39.8**	**-38.5**
Consumer NPC (coeff.)	**2.66**	**2.17**	**1.68**	**1.75**	**1.66**	**1.63**
Consumer NAC (coeff.)	**2.65**	**2.16**	**1.68**	**1.75**	**1.66**	**1.63**
Total Support Estimate (TSE)	**8 518**	**8 318**	**5 415**	**5 867**	**5 507**	**4 871**
Transfers from consumers	8 906	8 106	4 937	5 237	5 073	4 500
Transfers from taxpayers	2 095	2 715	1 836	1 894	1 837	1 777
Budget revenues	-2 483	-2 503	-1 358	-1 265	-1 403	-1 406
Percentage TSE (% of GDP)	**2.3**	**1.6**	**1.1**	**1.2**	**1.1**	**1.0**
GDP deflator (1986-88=100)	**100**	**109**	**92**	**90**	**92**	**94**

Note: 1986-88, 1995-97 and 2013-15: unweighted averages. p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

A/An/R/I: Area planted/Animal numbers/Receipts/Income.

1. Market Price Support (MPS) is net of producer levies and excess feed cost. MPS commodities for Japan are: wheat, barley, soybean, rice, sugar, milk, beef and veal, pig meat, poultry, eggs, apples, chinese cabbage, cucumbers, grapes, mandarins, pears, spinach, strawberries and Welsh onions.

Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database). DOI: dx.doi.org/10.1787/agr-pcse-data-en.

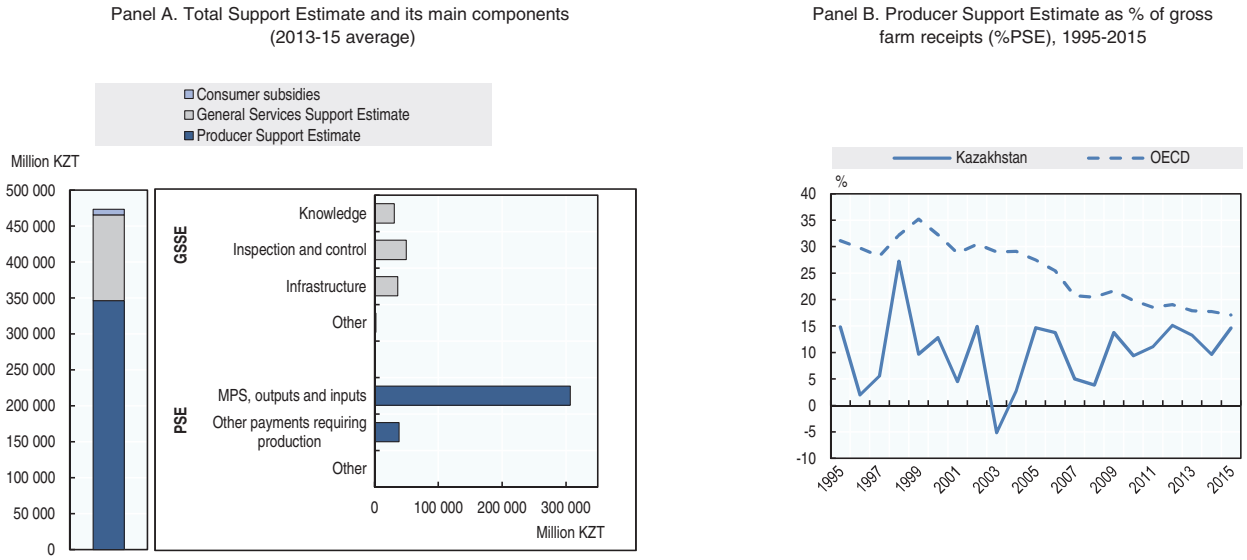
StatLink http://dx.doi.org/10.1787/888933375900

2.12. Kazakhstan

Support to agriculture

The level of producer support fluctuated substantially prior to 2009 and has stabilised at around 12% in more recent years. In 2015, it rose to 15% from 10% in 2014. This strong increase was mainly related to substantially higher market price support (MPS), which accounted for around 40% of producer support. Budgetary transfers to producers are mainly in the form of subsidies to farm investments. Almost three-quarters of total support to agriculture (TSE) is provided to producers individually, the rest is directed to general services and supports food processors.

Figure 2.12. **Kazakhstan: Level, structure and evolution of agricultural support**



Source: OECD (2016), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en.*

StatLink http://dx.doi.org/10.1787/888933374523

Main policy changes

A number of policy changes were implemented and approved during 2015 and early 2016. One decision was to abolish state purchases of grain as from January 2016. It was also decided to eliminate per hectare payments for priority crops, as well as a subsidy for cotton quality expertise and a seed subsidy. Changes to the land legislation allowing private ownership of agricultural land will take effect on 1 July 2016. Amendments to the Tax Law were approved to implement a five-fold increase in the land tax rate for agricultural enterprises as a measure to reduce non-cultivated agricultural land areas. A Law on Agricultural Co-operation that came into effect on 1 January 2016 facilitates the creation and operation of producer cooperatives and makes them eligible for a range of support measures. Kazakhstan's WTO accession is the major development in the trade area. The 19-year accession negotiations were closed on 22 June 2015 and the country became a WTO member on 30 November 2015.

Assessment and recommendations

- Several reforms were introduced to limit production and trade distorting support, most of them to be implemented in 2016.
- A broad agricultural debt restructuring has been implemented since 2013. This policy requires prudence in granting new concessions and monitoring compliance with new terms to avoid the creation of soft budget constraints which enable chronic loss-makers to continue operations.
- More transparent and competitive procedures to grant public support should be established to increase the effectiveness of the government support. The intended electronic system of subsidy payments would be a step in the right direction.
- The introduction of private ownership on agricultural land is an important step for developing a viable land market in the country, attracting long-term investment to the sector and improving land productivity.
- The elimination of per hectare payments for priority crops is welcome. However, making support payments and access to concessional credit conditional on compliance with regional specialisation schemes may erode the positive effect from this reform. It also may limit production diversification and therefore farm risk management capacities.
- A greater focus needs to be placed on enabling producers to better manage market and climate-related risks and on generating incentives for the sustainable use of natural resources. Developing a national system of extension services and improving attractiveness of rural areas to young professionals can present more effective policies for improving farm decision-making and performance than granting support conditioned on compliance with administratively specified requirements.
- A number of infrastructure projects launched recently have the potential to reduce weaknesses in the transport infrastructure and improve water and land management. Investments in these areas are essential to attain the stated agricultural development goals and will need to be pursued.

Table 2.12. **Kazakhstan: Estimates of support to agriculture**

Million KZT

	1995-97	2013-15	2013	2014	2015p
Total value of production (at farm gate)	**269 202**	**2 554 226**	**2 386 104**	**2 527 890**	**2 748 684**
***of which:** share of MPS commodities (%)*	74.0	70.8	71.9	68.6	72.1
Total value of consumption (at farm gate)	**245 430**	**2 336 543**	**2 411 975**	**2 532 749**	**2 064 905**
Producer Support Estimate (PSE)	**18 000**	**346 102**	**330 642**	**266 842**	**440 822**
Support based on commodity output	17 670	171 476	252 000	53 694	208 733
Market Price Support[1]	17 670	144 509	228 106	27 559	177 861
Payments based on output	0	26 967	23 893	26 136	30 872
Payments based on input use	295	135 538	55 376	168 368	182 871
Based on variable input use	126	41 209	25 881	52 242	45 503
with input constraints	0	0	0	0	0
Based on fixed capital formation	169	91 968	27 131	113 918	134 856
with input constraints	0	0	0	0	0
Based on on-farm services	0	2 361	2 364	2 208	2 512
with input constraints	0	0	0	0	0
Payments based on current A/An/R/I, production required	0	38 473	23 267	43 581	48 573
Based on Receipts / Income	0	0	0	0	0
Based on Area planted / Animal numbers	0	38 473	23 267	43 581	48 573
with input constraints	0	0	0	0	0
Payments based on non-current A/An/R/I, production required	0	0	0	0	0
Payments based on non-current A/An/R/I, production not required	0	0	0	0	0
With variable payment rates	0	0	0	0	0
with commodity exceptions	0	0	0	0	0
With fixed payment rates	0	0	0	0	0
with commodity exceptions	0	0	0	0	0
Payments based on non-commodity criteria	0	0	0	0	0
Based on long-term resource retirement	0	0	0	0	0
Based on a specific non-commodity output	0	0	0	0	0
Based on other non-commodity criteria	0	0	0	0	0
Miscellaneous payments	35	615	0	1 199	646
Percentage PSE (%)	**7.5**	**12.5**	**13.3**	**9.6**	**14.6**
Producer NPC (coeff.)	**1.00**	**1.07**	**1.11**	**1.04**	**1.05**
Producer NAC (coeff.)	**1.08**	**1.14**	**1.15**	**1.11**	**1.17**
General Services Support Estimate (GSSE)	**926**	**119 576**	**77 611**	**149 978**	**131 137**
Agricultural knowledge and innovation system	0	30 925	15 620	40 237	36 918
Inspection and control	823	49 765	60 181	46 795	42 320
Development and maintenance of infrastructure	103	36 586	559	58 516	50 683
Marketing and promotion	0	1 269	306	2 471	1 030
Cost of public stockholding	0	746	932	1 305	0
Miscellaneous	0	285	13	655	186
Percentage GSSE (% of TSE)	**5.1**	**25.5**	**18.8**	**35.3**	**22.5**
Consumer Support Estimate (CSE)	**-5 786**	**-133 234**	**-219 850**	**-119 723**	**-60 130**
Transfers to producers from consumers	-3 956	-129 086	-211 649	-104 870	-70 740
Other transfers from consumers	-861	-12 215	-12 681	-16 265	-7 699
Transfers to consumers from taxpayers	0	7 578	4 123	8 197	10 413
Excess feed cost	-969	490	356	-6 784	7 896
Percentage CSE (%)	**0.5**	**-5.6**	**-9.1**	**-4.7**	**-2.9**
Consumer NPC (coeff.)	**1.03**	**1.06**	**1.10**	**1.05**	**1.04**
Consumer NAC (coeff.)	**1.03**	**1.06**	**1.10**	**1.05**	**1.03**
Total Support Estimate (TSE)	**18 925**	**473 255**	**412 377**	**425 017**	**582 373**
Transfers from consumers	4 817	141 302	224 330	121 136	78 439
Transfers from taxpayers	14 969	344 169	200 728	320 146	511 632
Budget revenues	-861	-12 215	-12 681	-16 265	-7 699
Percentage TSE (% of GDP)	**1.6**	**1.2**	**1.2**	**1.1**	**1.4**
GDP deflator (1995-97=100)	**100**	**809**	**770**	**811**	**846**

Note: 1995-97 and 2013-15: unweighted averages. p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

A/An/R/I: Area planted/Animal numbers/Receipts/Income.

1. Market Price Support (MPS) is net of producer levies and excess feed cost. MPS commodities for Kazakhstan are: wheat, rice, maize, barley, sunflower, potatoes, cotton, milk, beef and veal, pig meat, sheep meat, poultry and eggs.

Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database). DOI: dx.doi.org/10.1787/agr-pcse-data-en.

StatLink http://dx.doi.org/10.1787/888933375919

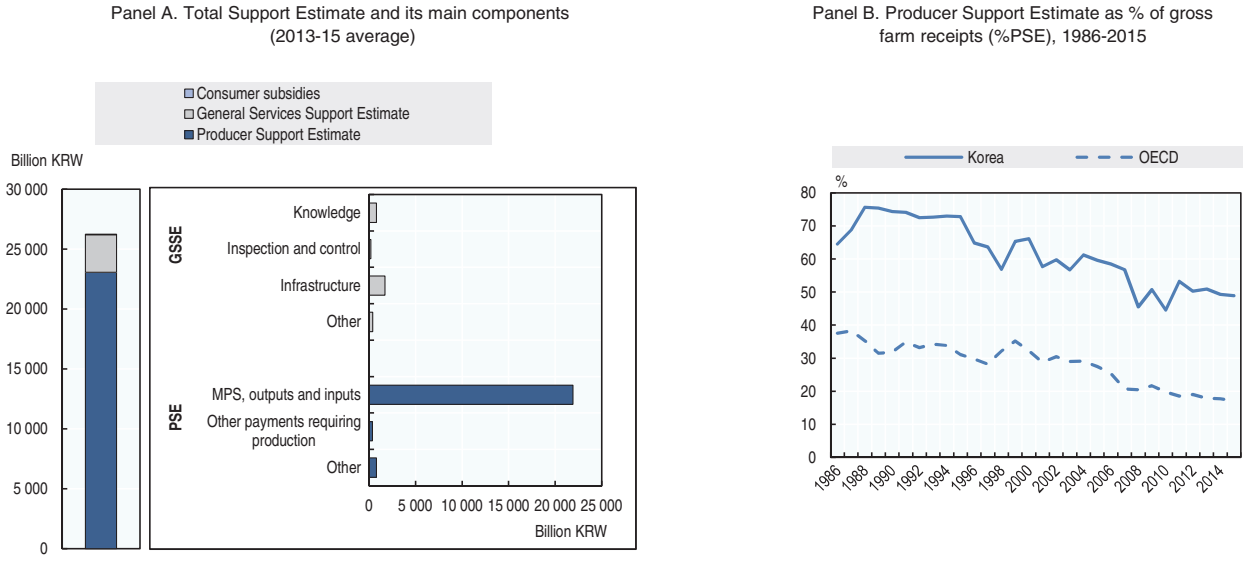
2.13. Korea

Support to agriculture

Korea has gradually reduced its support to agriculture especially in the last decade and very modest progress has been made towards more market oriented policies; however, producer support, as percentage of gross farm receipts (%PSE), is still almost three times higher than the OECD average. Korea has the fourth highest percentage PSE, following Switzerland, Norway and Iceland. The Total Support Estimate to agriculture (TSE) as percentage of GDP has significantly been reduced from 8.8% in 1986-88 to 1.8% in 2013-15. The transfer to individual farmers represents 86.1% of the TSE, while the General Services Support Estimate (GSSE) takes up 13.7% of the TSE. The expenditure on development and maintenance of infrastructure accounts for 46.5% of the GSSE, followed by Agricultural knowledge and innovation system.

The Market Price Support (MPS) is the dominant factor in the PSE for Korea, although the ratio of producer price to border price has been reduced from 3.35 in 1986-88 to 1.87 in 2015. As the government purchase programme for rice, in which the government paid a higher price than the market price, was abolished in 2005, Korea adopted a public stockholding scheme for rice, which is a purchase and release mechanism based on the current market price, supplemented with a rice income compensation scheme. This policy change increased direct payments to farmers.

Figure 2.13. **Korea: Level, structure and evolution of agricultural support**



Source: OECD (2016), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en.*
StatLink http://dx.doi.org/10.1787/888933374537

Main policy changes

As of 1 January 2015, the tariffication of rice went into effect, replacing the previous non-tariff measures. The tariff rate on rice imports is applied at 513%, but a minimum market access (MMA) volume of 408 700 tonnes is maintained at a 5% tariff rate. On the other hand, the government announced the mid-term plan to balance the supply and demand of rice by 2018 through a gradual reduction of production area, encouraging crop diversification and expanding consumption. To enhance innovation Korea announced the

plan to expand the "Smart Farm" concept: greenhouses and cattle sheds that can be remotely controlled using smart phones and PCs, and is starting to develop an improved farm production management models based on big data analysis.

Assessment and recommendations

- Although the share of support through budgetary payment schemes has gradually increased in most recent years through introducing new payment schemes and increasing the rate of payments, market price support still dominates. More than 90% of producer support is commodity specific, and concentrates on a limited number of products.
- Reforms of the rice production system should be a policy priority, and the plan to balance the supply and demand of rice is a first step in that direction.
- To improve market functioning and reduce distortive effects, direct payment schemes need to move away from production and price support toward measures to target explicit policy objectives which match the objectives of society, including the provision of the environmental services such as water management, flood buffering and biodiversity.
- Public investment for general services, especially the agricultural knowledge and innovation system, is relatively low compared to the OECD average. Further efforts are needed to expand budget expenditure towards longer term growth and competitiveness in the sector.

Table 2.13. **Korea: Estimates of support to agriculture**

Billion KRW

	1986-88	1995-97	2013-15	2013	2014	2015p
Total value of production (at farm gate)	**13 624**	**27 747**	**44 650**	**44 609**	**44 919**	**44 421**
***of which:** share of MPS commodities (%)*	72.0	64.3	63.8	61.3	63.0	67.1
Total value of consumption (at farm gate)	**14 367**	**30 693**	**52 968**	**52 449**	**54 040**	**52 414**
Producer Support Estimate (PSE)	**9 605**	**19 277**	**23 071**	**23 523**	**22 930**	**22 760**
Support based on commodity output	9 511	18 199	21 312	21 950	21 313	20 671
Market Price Support[1]	9 511	18 199	21 312	21 950	21 313	20 671
Payments based on output	0	0	0	0	0	0
Payments based on input use	70	871	594	547	554	683
Based on variable input use	23	136	214	233	205	202
with input constraints	3	11	68	76	64	64
Based on fixed capital formation	44	725	264	221	269	302
with input constraints	0	70	43	44	41	43
Based on on-farm services	3	10	117	92	80	179
with input constraints	0	0	0	0	0	0
Payments based on current A/An/R/I, production required	24	206	362	300	264	521
Based on Receipts / Income	24	196	244	251	219	263
Based on Area planted / Animal numbers	0	11	117	49	45	259
with input constraints	0	0	53	49	45	65
Payments based on non-current A/An/R/I, production required	0	0	0	0	0	0
Payments based on non-current A/An/R/I, production not required	0	0	803	726	798	884
With variable payment rates	0	0	0	0	0	0
with commodity exceptions	0	0	0	0	0	0
With fixed payment rates	0	0	803	726	798	884
with commodity exceptions	0	0	0	0	0	0
Payments based on non-commodity criteria	0	0	0	0	0	0
Based on long-term resource retirement	0	0	0	0	0	0
Based on a specific non-commodity output	0	0	0	0	0	0
Based on other non-commodity criteria	0	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0	0
Percentage PSE (%)	**69.7**	**67.1**	**49.7**	**50.9**	**49.3**	**48.9**
Producer NPC (coeff.)	**3.35**	**2.97**	**1.91**	**1.97**	**1.90**	**1.87**
Producer NAC (coeff.)	**3.38**	**3.09**	**1.99**	**2.04**	**1.97**	**1.96**
General Services Support Estimate (GSSE)	**842**	**2 852**	**3 120**	**3 314**	**2 903**	**3 144**
Agricultural knowledge and innovation system	54	315	799	865	735	799
Inspection and control	21	63	207	196	195	229
Development and maintenance of infrastructure	374	2 121	1 708	1 682	1 689	1 754
Marketing and promotion	0	12	57	65	69	37
Cost of public stockholding	394	341	349	505	216	325
Miscellaneous	0	0	0	0	0	0
Percentage GSSE (% of TSE)	**7.9**	**12.7**	**11.9**	**12.3**	**11.2**	**12.1**
Consumer Support Estimate (CSE)	**-9 425**	**-19 748**	**-24 268**	**-24 944**	**-24 304**	**-23 557**
Transfers to producers from consumers	-9 304	-17 861	-20 625	-21 228	-20 705	-19 942
Other transfers from consumers	-181	-2 148	-3 686	-3 764	-3 640	-3 655
Transfers to consumers from taxpayers	59	260	43	48	41	40
Excess feed cost	0	0	0	0	0	0
Percentage CSE (%)	**-65.7**	**-64.8**	**-45.9**	**-47.6**	**-45.0**	**-45.0**
Consumer NPC (coeff.)	**2.94**	**2.91**	**1.85**	**1.91**	**1.82**	**1.82**
Consumer NAC (coeff.)	**2.93**	**2.89**	**1.85**	**1.91**	**1.82**	**1.82**
Total Support Estimate (TSE)	**10 507**	**22 390**	**26 234**	**26 884**	**25 874**	**25 943**
Transfers from consumers	9 484	20 009	24 311	24 992	24 345	23 597
Transfers from taxpayers	1 203	4 529	5 609	5 657	5 169	6 001
Budget revenues	-181	-2 148	-3 686	-3 764	-3 640	-3 655
Percentage TSE (% of GDP)	**8.8**	**4.9**	**1.8**	**1.9**	**1.7**	**1.7**
GDP deflator (1986-88=100)	**100**	**187**	**275**	**273**	**274**	**280**

Note: 1986-88, 1995-97 and 2013-15: unweighted averages. p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

A/An/R/I: Area planted/Animal numbers/Receipts/Income.

1. Market Price Support (MPS) is net of producer levies and excess feed cost. MPS commodities for Korea are: barley, garlic, red pepper, chinese cabbage, rice, soybean, milk, beef and veal, pig meat, poultry and eggs.

Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database). DOI: dx.doi.org/10.1787/agr-pcse-data-en.

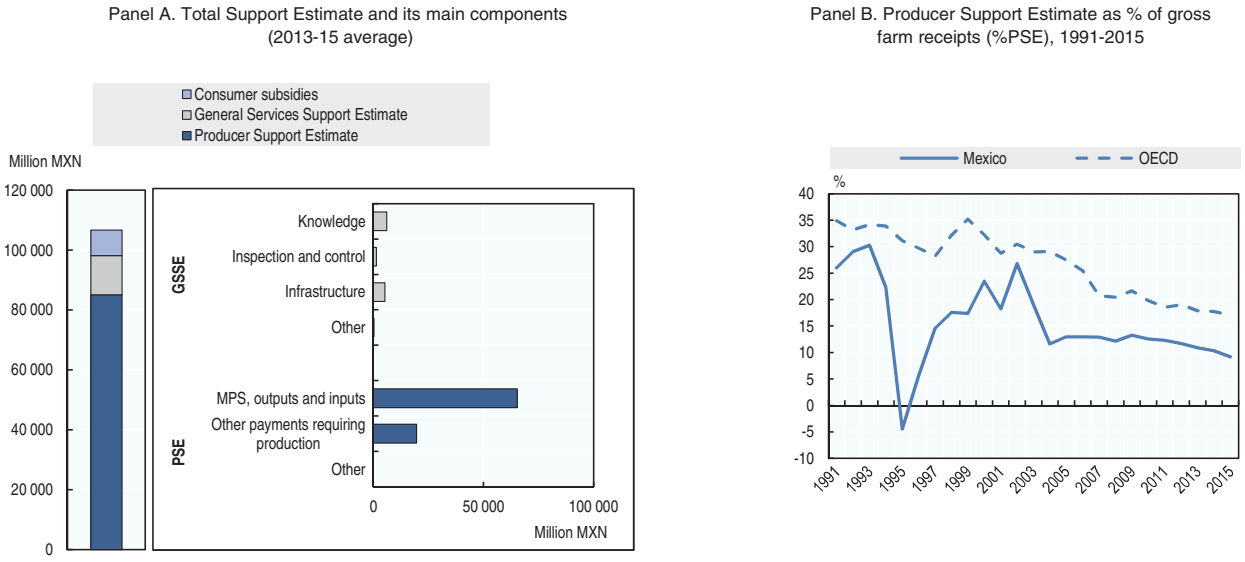
StatLink http://dx.doi.org/10.1787/888933375923

2.14. Mexico

Support to agriculture

Mexico has undertaken significant agricultural policy reform since the early 1990s and considerably reduced price distortions and the share of support in farm gross receipts. The shift away from less distorting support, however, has been partly reversed since 2000. Support linked to variable costs increased, in particular the subsidies for electricity and for price hedging contracts. The programme Productive PROAGRO introduced in 2014 to succeed PROCAMPO, re-coupled area payments to production. In 2013-15, transfers to producers (the PSE) constituted 80% of the total support to the agricultural sector, with the remaining 12% directed to general services and 8% to provide direct budgetary subsidies to consumers. Market price support, payments linked to output and variable and capital inputs used dominate support to producers, altogether accounting for 77% of its total. General services are focussed on infrastructure and agricultural knowledge systems, which absorbed 87% of total allocations for general services in 2013-15.

Figure 2.14. **Mexico: Level, structure and evolution of agricultural support**



Source: OECD (2016), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en.*
StatLink http://dx.doi.org/10.1787/888933374549

Main policy changes

Mexico's Agricultural Development Plan for 2013-18 seeks to boost agricultural production, achieve greater self-sufficiency in principal grains and oilseeds, and eliminate the negative balance in agro-food trade. The implementation of the main programmes under this Plan continued in 2015 with no major changes, however, additional support was provided to crop growers whose incomes were affected by a fall in international prices during the 2014 spring-summer crop cycle. A streamlining of rural development and small farmer support programmes was undertaken to improve the efficiency and transparency of budgetary spending and reduce the administration costs of these programmes. The issue of antidumping and countervailing duties on sugar imports from Mexico into the United States was resolved by an agreement to establish a quota on Mexican sugar deliveries to the United States. The WTO dispute since 2008 with the United States on the

US mandatory country of origin labelling (COOL) provisions in application to imported Mexican cattle has been also resolved.

Assessment and recommendations

- A greater policy focus should be placed on strategic investments in the long-term productivity, sustainability and profitability of the agricultural sector. This implies a shift away from input and output-linked subsidies towards supporting the adoption of new technologies, knowledge transfer, in particular extension services, development of food safety system, and infrastructure.
- The Productive-PROAGRO – re-coupling support to production and the use of inputs – requires an evaluation in terms of its environmental impacts and the extent to which it is effective in raising incomes of small farmers, which has been a rationale for these area payments.
- Phasing-out subsidies to electricity for pumping water would help a more optimal use of water – an issue of important policy concern. Direct support could be considered to help farmers adopt the practices for more efficient and sustainable use of water.
- Commercial farmers need to be equipped with a range of tools to manage normal business risks. High subsidies for one specific risk management instrument, such as price hedging, should be avoided. Government support for catastrophic events beyond the capacity of individual farmers to manage their consequences needs to be available and be based on a well-defined set of rules.
- Policy approaches should be differentiated to respond to the needs of commercial farms and small farmers producing largely for own consumption. As the overall economy develops, poverty reduction should be pursued through place-based development policies and targeted social assistance, rather than through production-linked subsidies.

Table 2.14. **Mexico: Estimates of support to agriculture**

Million MXN

	1991-93	1995-97	2013-15	2013	2014	2015p
Total value of production (at farm gate)	**86 539**	**182 276**	**771 311**	**718 941**	**773 516**	**821 474**
***of which:** share of MPS commodities (%)*	68.7	70.1	67.9	69.1	67.5	67.2
Total value of consumption (at farm gate)	**82 475**	**181 399**	**779 170**	**750 503**	**803 832**	**783 175**
Producer Support Estimate (PSE)	**25 994**	**13 108**	**85 084**	**85 118**	**88 166**	**81 967**
Support based on commodity output	21 538	412	16 364	22 581	12 582	13 927
Market Price Support[1]	21 379	333	15 372	22 181	11 299	12 636
Payments based on output	160	79	992	401	1 284	1 291
Payments based on input use	4 445	5 729	49 020	42 542	54 575	49 945
Based on variable input use	2 296	2 373	17 880	17 361	17 893	18 385
with input constraints	0	0	0	0	0	0
Based on fixed capital formation	1 680	2 340	23 912	20 004	28 625	23 108
with input constraints	0	0	0	0	0	0
Based on on-farm services	469	1 016	7 228	5 176	8 057	8 452
with input constraints	0	0	0	0	0	0
Payments based on current A/An/R/I, production required	10	266	3 850	4 341	4 218	2 992
Based on Receipts / Income	0	100	0	0	0	0
Based on Area planted / Animal numbers	10	166	3 850	4 341	4 218	2 992
with input constraints	0	0	0	0	0	0
Payments based on non-current A/An/R/I, production required	0	0	15 849	15 654	16 791	15 104
Payments based on non-current A/An/R/I, production not required	0	6 701	0	0	0	0
With variable payment rates	0	0	0	0	0	0
with commodity exceptions	0	0	0	0	0	0
With fixed payment rates	0	6 701	0	0	0	0
with commodity exceptions	0	9	0	0	0	0
Payments based on non-commodity criteria	0	0	0	0	0	0
Based on long-term resource retirement	0	0	0	0	0	0
Based on a specific non-commodity output	0	0	0	0	0	0
Based on other non-commodity criteria	0	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0	0
Percentage PSE (%)	**28.4**	**5.3**	**10.2**	**10.9**	**10.4**	**9.2**
Producer NPC (coeff.)	**1.34**	**1.00**	**1.02**	**1.03**	**1.02**	**1.02**
Producer NAC (coeff.)	**1.40**	**1.06**	**1.11**	**1.12**	**1.12**	**1.10**
General Services Support Estimate (GSSE)	**3 229**	**2 743**	**13 024**	**12 339**	**14 133**	**12 599**
Agricultural knowledge and innovation system	889	1 486	6 133	5 785	6 152	6 463
Inspection and control	0	156	1 343	1 129	1 175	1 726
Development and maintenance of infrastructure	875	453	5 250	5 119	6 529	4 101
Marketing and promotion	255	161	298	305	278	310
Cost of public stockholding	1 210	487	0	0	0	0
Miscellaneous	0	0	0	0	0	0
Percentage GSSE (% of TSE)	**10.1**	**..**	**12.2**	**11.7**	**12.6**	**12.2**
Consumer Support Estimate (CSE)	**-19 399**	**-883**	**-7 997**	**-14 448**	**-2 559**	**-6 985**
Transfers to producers from consumers	-21 870	-1 952	-14 320	-22 181	-10 209	-10 569
Other transfers from consumers	-771	-3 513	-2 209	0	-1 900	-4 728
Transfers to consumers from taxpayers	2 629	4 515	8 531	7 733	9 549	8 312
Excess feed cost	612	67	0	0	0	0
Percentage CSE (%)	**-24.3**	**1.3**	**-1.1**	**-1.9**	**-0.3**	**-0.9**
Consumer NPC (coeff.)	**1.38**	**1.02**	**1.02**	**1.03**	**1.02**	**1.02**
Consumer NAC (coeff.)	**1.32**	**1.00**	**1.01**	**1.02**	**1.00**	**1.01**
Total Support Estimate (TSE)	**31 853**	**20 366**	**106 639**	**105 189**	**111 848**	**102 878**
Transfers from consumers	22 640	5 465	16 529	22 181	12 109	15 297
Transfers from taxpayers	9 983	18 414	92 319	83 009	101 639	92 309
Budget revenues	-771	-3 513	-2 209	0	-1 900	-4 728
Percentage TSE (% of GDP)	**2.6**	**0.6**	**0.6**	**0.7**	**0.7**	**0.6**
GDP deflator (1991-93=100)	**100**	**201**	**720**	**687**	**719**	**755**

.. Not available.

Note: 1991-93, 1995-97 and 2013-15: unweighted averages. p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

A/An/R/I: Area planted/Animal numbers/Receipts/Income.

1. Market Price Support (MPS) is net of producer levies and excess feed cost. MPS commodities for Mexico are: wheat, maize, barley, sorghum, coffee, beans, tomatoes, rice, soybean, sugar, milk, beef and veal, pig meat, poultry and eggs.

Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database). DOI: dx.doi.org/10.1787/agr-pcse-data-en.

StatLink http://dx.doi.org/10.1787/888933375931

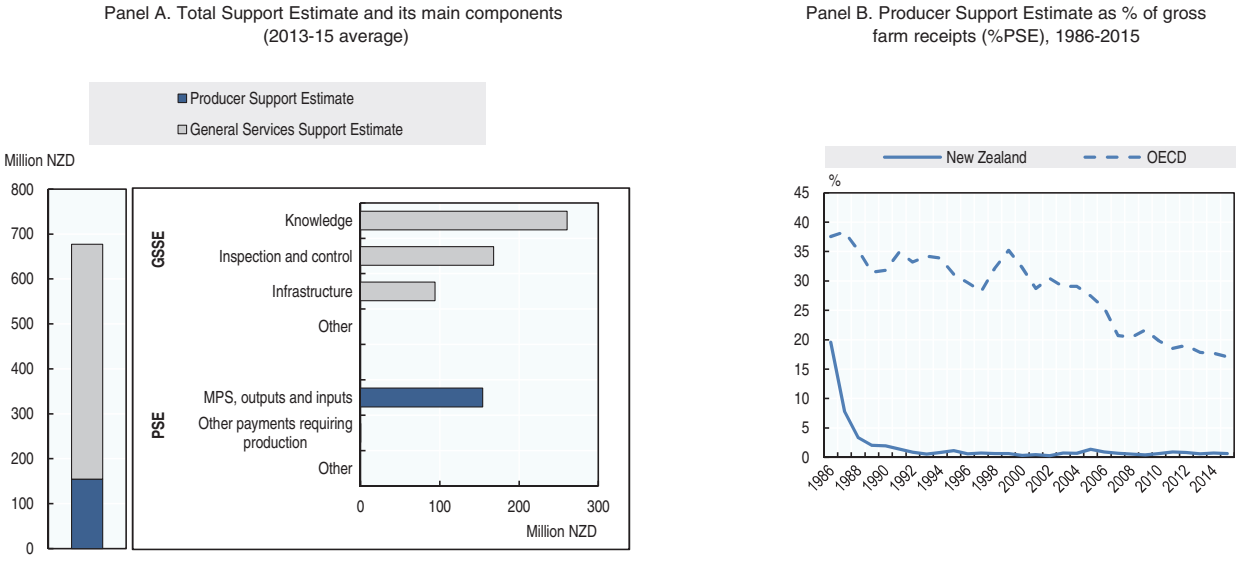
2.15. New Zealand

Support to agriculture

Since its reforms of agricultural policies in the mid-1980s, production and trade distorting policies supporting the sector in New Zealand have virtually disappeared. For more than 25 years, the level of support to farmers has been the lowest among OECD countries. Support is provided mainly in the context of animal disease control, relief in the event of natural disasters, and the agricultural knowledge and information system. In recent years, more than three-quarters of all support was through these and other general services.

Almost all prices are aligned with world market prices due to open trade. Exceptions are due to New Zealand's Import Health Standards which effectively prevent fresh poultry, eggs and some bee products from being imported under current economic conditions, thus generating some market price support for these sectors.

Figure 2.15. **New Zealand: Level, structure and evolution of agricultural support**



Source: OECD (2016), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en.*

StatLink http://dx.doi.org/10.1787/888933374551

Main policy changes

New Zealand's recent policy changes focus on specific individual problems and thus comprise a set of detailed developments related to damage prevention, reparation and compensation, animal welfare, innovation for sustainable growth, biosecurity risks, and the facilitation of Maori agribusiness. Responses to the significant drought and unusually severe storms and flooding faced by parts of the country in 2015 included additional funds for reparation of infrastructure, for limiting soil erosion and for assisting affected farm households. Investments into research focused on nutrient management, GHG emissions and forage quality. Research is also looking at ways to improve the productivity of Māori-owned land.

The major event in trade polices was the signing of the **Trans-Pacific Partnership** (TPP) agreement between New Zealand and 11 other members in February 2016.

Assessment and recommendations

- New Zealand policies strongly focus on limiting biosecurity risks, enhancing productivity and encouraging reduced GHG emissions and other environmental externalities from agricultural production by way of specific and targeted measures.
- New Zealand's Import Health Standards effectively prevent fresh poultry, eggs and some bee products from being imported under current economic conditions; New Zealand should investigate alternatives to the current system for achieving its sanitary objectives.
- Kiwifruit exports to markets other than Australia continue to be regulated by requiring authorisation by Kiwifruit New Zealand for third-country exports by groups other than Zespri.

Table 2.15. **New Zealand: Estimates of support to agriculture**

Million NZD

	1986-88	1995-97	2013-15	2013	2014	2015p
Total value of production (at farm gate)	**6 860**	**9 669**	**23 347**	**26 319**	**21 984**	**21 737**
***of which:** share of MPS commodities (%)*	72.1	72.1	75.4	80.6	74.8	70.8
Total value of consumption (at farm gate)	**1 667**	**2 325**	**4 000**	**4 081**	**3 784**	**4 133**
Producer Support Estimate (PSE)	**775**	**79**	**155**	**158**	**161**	**145**
Support based on commodity output	104	43	124	127	131	115
Market Price Support[1]	101	43	124	127	131	115
Payments based on output	3	0	0	0	0	0
Payments based on input use	314	35	30	31	30	30
Based on variable input use	3	0	0	0	0	0
with input constraints	0	0	0	0	0	0
Based on fixed capital formation	271	0	0	0	0	0
with input constraints	0	0	0	0	0	0
Based on on-farm services	40	35	30	31	30	30
with input constraints	0	0	0	0	0	0
Payments based on current A/An/R/I, production required	42	1	0	1	0	0
Based on Receipts / Income	42	1	0	1	0	0
Based on Area planted / Animal numbers	0	0	0	0	0	0
with input constraints	0	0	0	0	0	0
Payments based on non-current A/An/R/I, production required	315	0	0	0	0	0
Payments based on non-current A/An/R/I, production not required	0	0	0	0	0	0
With variable payment rates	0	0	0	0	0	0
with commodity exceptions	0	0	0	0	0	0
With fixed payment rates	0	0	0	0	0	0
with commodity exceptions	0	0	0	0	0	0
Payments based on non-commodity criteria	0	0	0	0	0	0
Based on long-term resource retirement	0	0	0	0	0	0
Based on a specific non-commodity output	0	0	0	0	0	0
Based on other non-commodity criteria	0	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0	0
Percentage PSE (%)	**10.2**	**0.8**	**0.7**	**0.6**	**0.7**	**0.7**
Producer NPC (coeff.)	**1.02**	**1.00**	**1.01**	**1.00**	**1.01**	**1.01**
Producer NAC (coeff.)	**1.12**	**1.01**	**1.01**	**1.01**	**1.01**	**1.01**
General Services Support Estimate (GSSE)	**203**	**180**	**523**	**502**	**515**	**550**
Agricultural knowledge and innovation system	102	116	261	253	255	274
Inspection and control	54	43	168	156	167	181
Development and maintenance of infrastructure	47	20	94	94	94	95
Marketing and promotion	0	0	0	0	0	0
Cost of public stockholding	0	0	0	0	0	0
Miscellaneous	0	0	0	0	0	0
Percentage GSSE (% of TSE)	**26.9**	**69.7**	**77.1**	**76.1**	**76.2**	**79.1**
Consumer Support Estimate (CSE)	**-93**	**-36**	**-112**	**-116**	**-119**	**-103**
Transfers to producers from consumers	-93	-36	-112	-116	-119	-103
Other transfers from consumers	0	0	0	0	0	0
Transfers to consumers from taxpayers	0	0	0	0	0	0
Excess feed cost	0	0	0	0	0	0
Percentage CSE (%)	**-5.7**	**-1.6**	**-2.8**	**-2.8**	**-3.1**	**-2.5**
Consumer NPC (coeff.)	**1.06**	**1.02**	**1.03**	**1.03**	**1.03**	**1.03**
Consumer NAC (coeff.)	**1.06**	**1.02**	**1.03**	**1.03**	**1.03**	**1.03**
Total Support Estimate (TSE)	**978**	**259**	**677**	**661**	**676**	**696**
Transfers from consumers	93	36	112	116	119	103
Transfers from taxpayers	885	222	565	545	557	593
Budget revenues	0	0	0	0	0	0
Percentage TSE (% of GDP)	**1.6**	**0.3**	**0.3**	**0.3**	**0.3**	**0.3**
GDP deflator (1986-88=100)	**100**	**128**	**189**	**185**	**189**	**191**

Note: 1986-88, 1995-97 and 2013-15: unweighted averages. p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

A/An/R/I: Area planted/Animal numbers/Receipts/Income.

1. Market Price Support (MPS) is net of producer levies and excess feed cost. MPS commodities for New Zealand are: wheat, maize, oats, barley, milk, beef and veal, sheep meat, wool, pig meat, poultry and eggs.

Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database). DOI: dx.doi.org/10.1787/agr-pcse-data-en.

StatLink http://dx.doi.org/10.1787/888933375941

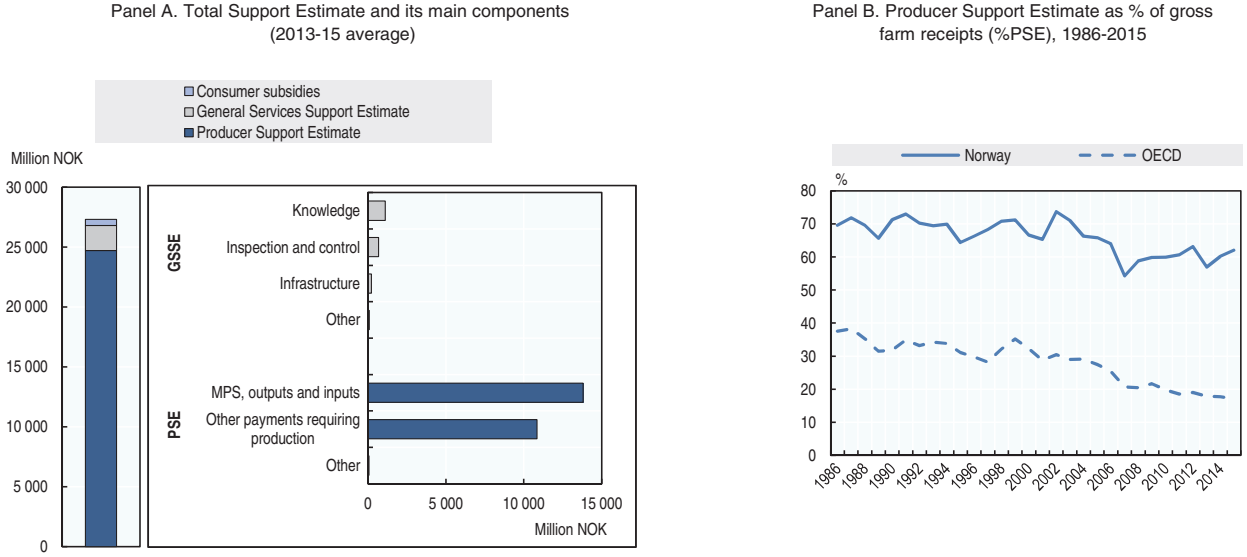
2.16. Norway

Support to agriculture

Progress in reducing the level of support has been modest and it is amongst the countries with the highest levels of support to the farming sector. The Total Support Estimate to agriculture (TSE) was slightly less than 1% of GDP in recent years. Support to farmers (PSE) accounts for 60% of gross farm receipts. Market price support (MPS), mainly due to border protection, still remains the main component of support to farmers, and has only slightly been reduced from 48% of the PSE in 1986-88 to 43% in 2013-15.

While the share of potentially most production and trade distorting support has declined, it still represented most of the support in recent years. Support that is based on individual commodities (mainly market price support) represents 60% of support to farmers and is relatively evenly distributed over commodities. Prices received by producers are on average 80% above world market prices. Expenditures on general services for the sector as a whole (General Service Support Estimate – GSSE) are relatively small and mostly finance the agricultural knowledge and innovation system.

Figure 2.16. **Norway: Level, structure and evolution of agricultural support**



Source: OECD (2016), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en.*

StatLink http://dx.doi.org/10.1787/888933374568

Main policy changes

The strategic objectives of agricultural and food policies, as set out in the White Paper No. 9 (2011-12) are: food security; agriculture throughout the country; creating more added-value; and sustainable agriculture. The agricultural policy aims at safeguarding agricultural resources, developing know-how and contributing to the creation of employment and value added in farming and farm-based products throughout the country. Agricultural support policy is a substantial component of Norway's regional and rural policies.

In past decades, farm support has been reduced only modestly and remains three times higher than the OECD average. Notwithstanding some reforms, mainly in the area of introducing more flexibility in the dairy quota system, farm support remains substantial

and market distorting and there remains considerable scope for accelerating the pace of reforms. Reform of agricultural policies is on the government's agenda and several commissions and white-paper processes have been launched.

Assessment and recommendations

- Agricultural support remains overly concentrated on maintaining the *status quo* and progress towards reform has been very modest. Despite lower price distortions, Norway's agricultural sector remains among the most highly protected in the OECD area. The cost-efficiency and tenability of the policy mechanisms are questionable. Attention should be focused on balancing the costs and distortions of support against its claimed benefits (generally in the form of public goods such as food security and sustaining rural economies).
- Border protection should be reduced, by lowering import tariffs, preferably through a legislated multi-year programme of reductions in order to signal policy commitment and provide a planning horizon for producers. Plans to phase out export subsidies for agricultural products would reduce the distortions associated with these measures and enhance the exposure of producers to market signals.
- Payments for output and inputs should be reduced, in order to improve producers' awareness of market signals, and measures that hinder structural shifts towards a more viable agricultural sector should be removed. The proposal of the Government to lighten the legislation on land use and land transfer is a step towards facilitating structural adjustment of the sector.
- Greater efforts can be made to further strengthen the links between stated policy-objectives and payments for cultural and environmental support mechanisms.
- An assessment of whether the current format of annual negotiation between government and farmer representatives is well-suited to promoting reform would also be beneficial.

Table 2.16. **Norway: Estimates of support to agriculture**

Million NOK

	1986-88	1995-97	2013-15	2013	2014	2015p
Total value of production (at farm gate)	**17 354**	**18 232**	**27 326**	**26 682**	**27 192**	**28 105**
***of which:** share of MPS commodities (%)*	73.3	77.5	78.1	76.8	79.6	77.8
Total value of consumption (at farm gate)	**17 899**	**18 129**	**28 711**	**28 696**	**28 142**	**29 294**
Producer Support Estimate (PSE)	**19 175**	**19 246**	**24 714**	**23 028**	**24 884**	**26 229**
Support based on commodity output	13 877	11 997	12 429	10 926	12 490	13 870
Market Price Support[1]	9 274	8 444	10 674	9 255	10 715	12 052
Payments based on output	4 603	3 554	1 755	1 671	1 775	1 818
Payments based on input use	1 721	960	1 370	1 378	1 380	1 354
Based on variable input use	1 020	551	715	741	733	671
with input constraints	0	1	0	0	0	0
Based on fixed capital formation	628	339	569	549	561	597
with input constraints	0	0	0	0	0	0
Based on on-farm services	73	70	86	88	86	85
with input constraints	2	0	0	0	0	0
Payments based on current A/An/R/I, production required	3 577	6 254	7 625	7 445	7 700	7 730
Based on Receipts / Income	0	0	944	896	969	968
Based on Area planted / Animal numbers	3 577	6 254	6 681	6 549	6 731	6 762
with input constraints	0	104	602	594	597	615
Payments based on non-current A/An/R/I, production required	0	0	3 228	3 222	3 245	3 215
Payments based on non-current A/An/R/I, production not required	0	0	0	0	0	0
With variable payment rates	0	0	0	0	0	0
with commodity exceptions	0	0	0	0	0	0
With fixed payment rates	0	0	0	0	0	0
with commodity exceptions	0	0	0	0	0	0
Payments based on non-commodity criteria	0	34	62	57	68	60
Based on long-term resource retirement	0	0	0	0	0	0
Based on a specific non-commodity output	0	34	62	57	68	60
Based on other non-commodity criteria	0	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0	0
Percentage PSE (%)	**70.3**	**66.3**	**59.7**	**56.9**	**60.2**	**62.0**
Producer NPC (coeff.)	**4.08**	**2.50**	**1.80**	**1.68**	**1.83**	**1.89**
Producer NAC (coeff.)	**3.38**	**2.97**	**2.49**	**2.32**	**2.51**	**2.63**
General Services Support Estimate (GSSE)	**848**	**1 046**	**2 092**	**2 145**	**1 955**	**2 176**
Agricultural knowledge and innovation system	472	623	1 115	1 078	1 001	1 265
Inspection and control	33	173	680	779	647	613
Development and maintenance of infrastructure	202	108	221	219	222	222
Marketing and promotion	141	120	76	68	85	76
Cost of public stockholding	0	22	0	0	0	0
Miscellaneous	0	0	0	0	0	0
Percentage GSSE (% of TSE)	**3.9**	**5.0**	**7.7**	**8.4**	**7.1**	**7.5**
Consumer Support Estimate (CSE)	**-9 141**	**-8 343**	**-11 465**	**-10 450**	**-11 373**	**-12 572**
Transfers to producers from consumers	-11 381	-9 038	-11 218	-10 091	-11 502	-12 062
Other transfers from consumers	-959	-548	-789	-836	-611	-921
Transfers to consumers from taxpayers	1 522	542	496	427	574	487
Excess feed cost	1 677	700	47	50	165	-76
Percentage CSE (%)	**-55.8**	**-47.5**	**-40.6**	**-37.0**	**-41.3**	**-43.6**
Consumer NPC (coeff.)	**3.24**	**2.13**	**1.72**	**1.61**	**1.76**	**1.80**
Consumer NAC (coeff.)	**2.27**	**1.91**	**1.69**	**1.59**	**1.70**	**1.77**
Total Support Estimate (TSE)	**21 545**	**20 834**	**27 302**	**25 600**	**27 413**	**28 892**
Transfers from consumers	12 340	9 585	12 007	10 927	12 112	12 983
Transfers from taxpayers	10 164	11 796	16 084	15 509	15 912	16 830
Budget revenues	-959	-548	-789	-836	-611	-921
Percentage TSE (% of GDP)	**3.5**	**2.0**	**0.9**	**0.8**	**0.9**	**0.9**
GDP deflator (1986-88=100)	**100**	**128**	**270**	**270**	**271**	**268**

Note: 1986-88, 1995-97 and 2013-15: unweighted averages. p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

A/An/R/I: Area planted/Animal numbers/Receipts/Income.

1. Market Price Support (MPS) is net of producer levies and excess feed cost. MPS commodities for Norway are: wheat, barley, oats, milk, beef and veal, sheep meat, wool, pig meat, poultry and eggs.

Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database). DOI: dx.doi.org/10.1787/agr-pcse-data-en.

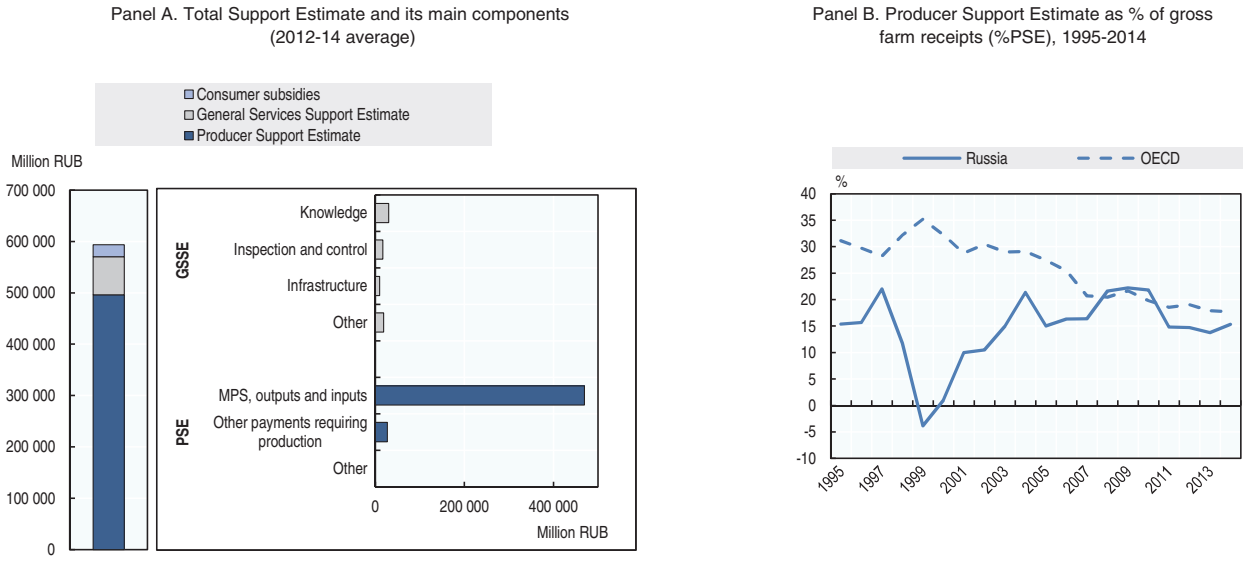
StatLink http://dx.doi.org/10.1787/888933375951

2.17. Russian Federation

Support to agriculture

Support to agricultural producers fluctuated over the long-term, but has remained at approximately the same level between 2012 and 2014.[1] Nearly 85% of total support to agriculture (TSE) in 2012-14 was provided to producers individually (PSE), with the rest directed to general services for agriculture (12%) and to food wholesalers and processors (3%). Producer support overwhelmingly (95%) derives from market price support and output and input subsidies. The aggregate market price support, however, disguises strong variations in support across commodities: it represents a mix between the border protection for imported livestock products and sugar and taxation of exported grains and oilseeds. Livestock producers also benefit from domestic grain prices being below the world levels. Support to general services is relatively evenly distributed among the principal areas, however, the largest amount of resources is directed to the agricultural knowledge system.

Figure 2.17. **Russian Federation: Level, structure and evolution of agricultural support**



Source: OECD (2016), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en.*

StatLink http://dx.doi.org/10.1787/888933374575

Main policy changes

The on-going State Programme for Development of Agriculture for 2013-20 entered its fourth year of implementation in 2016. The deteriorated macroeconomic situation led to several revisions of the Programme's initial financing targets. The allocations were increased for some of the sub-programmes, but reduced for others, investment grants were introduced as a new assistance, while the previous decision to cease certain investment credit subsidies was suspended. The sectors defined for priority support with the view to import substitution include milk and meat, greenhouse and early vegetables, seed potatoes, fruits and berries. The ban on agro-food imports from a number of countries imposed previously in the context of the Ukrainian crisis was extended. A Treaty on the Eurasian Economic Union (EAEU) came into effect with the Russian Federation as one of the parties. EAEU's activity in the agro-food

area in 2015-16 was focussed on the harmonising of the sanitary and phytosanitary and food safety regulation of its member countries.

Assessment and recommendations

- Agricultural policy formulated at the inception of the State Programme for Development of Agriculture for 2013-20 aimed at boosting the agricultural production and agro-food import substitution. The political context of the recent years has intensified country's import substitution orientation into a long-lasting self-sufficiency policy in agro-food area.
- Non-tariff border protection based on sanitary and phytosanitary and technical regulation grounds remains an active policy, in certain cases raising concerns among trading partners about application by the Russian Federation of undue trade restrictions.
- The government continued to focus on the cushioning of the effects of the current economic recession on the agro-food sector. Domestic policy has concentrated on increasing the flows of financial resources into agriculture, in particular to support investments in import competing sectors.
- A new emphasis has been put on the development of domestic seed production and pedigree livestock breeding to reduce dependence on imports of these agricultural inputs, as well as on the improvements in agro-marketing and food distribution infrastructure. A surge in food prices has activated the plans to establish an infrastructure for domestic food aid.
- Overall, distorting subsidy and import protection continue to prevail as policy instruments to achieve the stated goals. Substantial and sustained improvements in the competitiveness of agriculture are more likely to be achieved through prioritising investments in the sector's long-term productivity, such as R&D, knowledge transfer, infrastructure, plant and livestock health systems, and also through improving the living conditions in rural areas.

Table 2.17. **Russian Federation: Estimates of support to agriculture**

Million RUB

	1995-97	2012-14	2012	2013	2014
Total value of production (at farm gate)	**200 360**	**3 164 954**	**2 753 825**	**3 099 869**	**3 641 169**
***of which:** share of MPS commodities (%)*	82.0	76.4	75.7	75.2	78.2
Total value of consumption (at farm gate)	**245 885**	**3 740 941**	**3 529 144**	**3 627 548**	**4 066 130**
Producer Support Estimate (PSE)	**40 710**	**496 148**	**438 936**	**461 025**	**588 485**
Support based on commodity output	19 174	297 551	221 024	257 439	414 190
Market Price Support[1]	14 437	273 074	211 227	213 997	393 997
Payments based on output	4 737	24 477	9 797	43 442	20 194
Payments based on input use	19 943	172 074	211 482	163 339	141 402
Based on variable input use	11 959	57 155	87 987	45 818	37 661
with input constraints	0	0	0	0	0
Based on fixed capital formation	7 826	111 159	118 438	114 037	101 002
with input constraints	0	0	0	0	0
Based on on-farm services	159	3 760	5 057	3 484	2 739
with input constraints	0	0	0	0	0
Payments based on current A/An/R/I, production required	0	26 523	6 430	40 247	32 892
Based on Receipts / Income	0	2 257	5 423	1 277	72
Based on Area planted / Animal numbers	0	24 266	1 007	38 969	32 820
with input constraints	0	0	0	0	0
Payments based on non-current A/An/R/I, production required	0	0	0	0	0
Payments based on non-current A/An/R/I, production not required	0	0	0	0	0
With variable payment rates	0	0	0	0	0
with commodity exceptions	0	0	0	0	0
With fixed payment rates	0	0	0	0	0
with commodity exceptions	0	0	0	0	0
Payments based on non-commodity criteria	0	0	0	0	0
Based on long-term resource retirement	0	0	0	0	0
Based on a specific non-commodity output	0	0	0	0	0
Based on other non-commodity criteria	0	0	0	0	0
Miscellaneous payments	1 593	0	0	0	0
Percentage PSE (%)	**17.7**	**14.6**	**14.7**	**13.8**	**15.3**
Producer NPC (coeff.)	**1.08**	**1.09**	**1.08**	**1.09**	**1.12**
Producer NAC (coeff.)	**1.22**	**1.17**	**1.17**	**1.16**	**1.18**
General Services Support Estimate (GSSE)	**10 186**	**74 312**	**63 411**	**104 796**	**54 731**
Agricultural knowledge and innovation system	1 268	29 751	30 225	33 608	25 418
Inspection and control	824	16 802	20 161	19 732	10 513
Development and maintenance of infrastructure	1 639	9 266	6 997	12 278	8 523
Marketing and promotion	119	316	51	530	368
Cost of public stockholding	0	800	0	448	1 951
Miscellaneous	6 336	17 378	5 976	38 201	7 958
Percentage GSSE (% of TSE)	**16.6**	**12.7**	**12.1**	**17.7**	**8.2**
Consumer Support Estimate (CSE)	**-20 385**	**-414 839**	**-356 033**	**-344 101**	**-544 383**
Transfers to producers from consumers	-12 649	-268 637	-189 368	-222 759	-393 785
Other transfers from consumers	-5 892	-159 952	-168 302	-148 187	-163 369
Transfers to consumers from taxpayers	15	23 239	20 313	25 407	23 997
Excess feed cost	-1 859	-9 489	-18 677	1 437	-11 227
Percentage CSE (%)	**-6.0**	**-11.1**	**-10.1**	**-9.6**	**-13.5**
Consumer NPC (coeff.)	**1.07**	**1.13**	**1.11**	**1.11**	**1.16**
Consumer NAC (coeff.)	**1.08**	**1.12**	**1.11**	**1.11**	**1.16**
Total Support Estimate (TSE)	**50 911**	**593 700**	**522 659**	**591 227**	**667 213**
Transfers from consumers	18 541	428 590	357 669	370 946	557 154
Transfers from taxpayers	38 262	325 063	333 292	368 469	273 428
Budget revenues	-5 892	-159 952	-168 302	-148 187	-163 369
Percentage TSE (% of GDP)	**2.6**	**0.9**	**0.8**	**0.9**	**0.9**
GDP deflator (1995-97=100)	**100**	**862**	**794**	**870**	**923**

Note: 2015 data not available. 1995-97 and 2012-14: unweighted averages. p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

A/An/R/I: Area planted/Animal numbers/Receipts/Income.

1. Market Price Support (MPS) is net of producer levies and excess feed cost. MPS commodities for Russia are: wheat, maize, rye, barley, oats, sunflower, sugar, potatoes, milk, beef and veal, pig meat, poultry and eggs.

Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database). DOI: dx.doi.org/10.1787/agr-pcse-data-en.

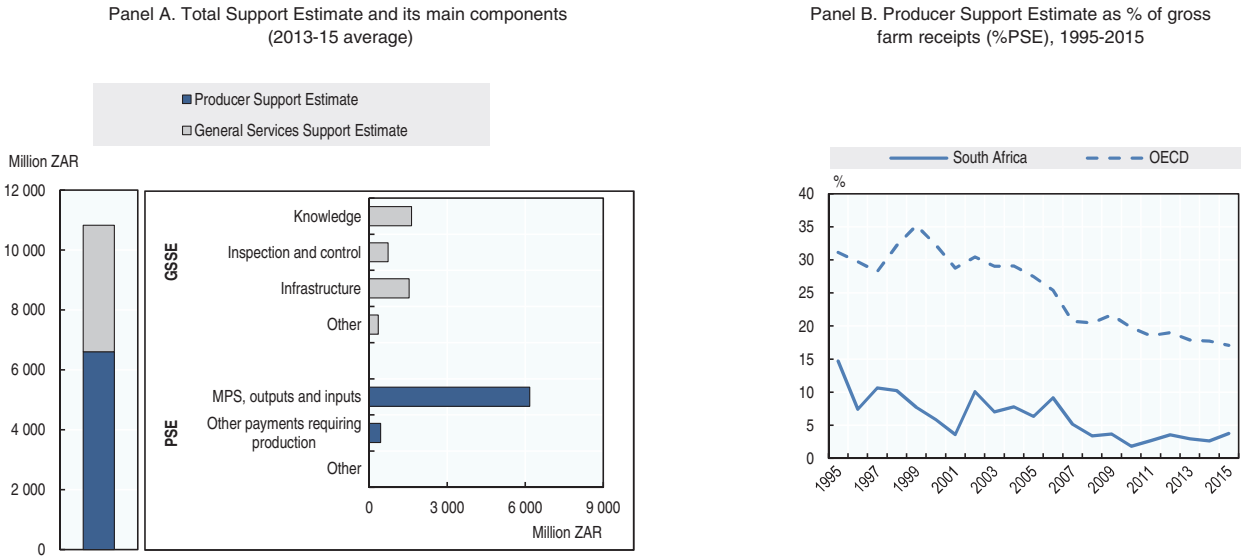
StatLink http://dx.doi.org/10.1787/888933375962

2.18. South Africa

Support to agriculture

South Africa reduced its support to agriculture during the 1990s and support to farms has remained below 5% of gross farm receipts since 2010 (Figure 2.18). Total support estimate to agriculture (TSE) was around 0.3% of GDP in 2013-15 Direct support to farms (PSE) is the largest part of the TSE. Support based on output (including MPS) and input use is the most important element. As for the General Services Support Estimate (GSSE), the main elements are payments financing the Agricultural knowledge and innovation system and expenditure on infrastructure.

Figure 2.18. **South Africa: Level, structure and evolution of agricultural support**



Source: OECD (2016), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en.*

StatLink http://dx.doi.org/10.1787/888933374581

The level of price distortions is low and domestic prices are almost aligned with world price levels, except for sugar and in recent years, milk and wheat. Most of the budgetary payments are related to the implementation of the land reforms and assistance to emerging farmers, and to general services for the whole sector.

Main policy changes

Most of the policy measures and direct payments continue to be targeted to the smallholder sub-sector. The Government provides post settlement assistance, including production loans to new and upcoming farmers (mostly operating on redistributed or resituated land). Changes were made to policies related to land redistribution. Under the amended regulation, all the newly acquired land has been registered as state owned on the *Agricultural Land Holding Account* and provided to selected beneficiaries under lease contracts. The beneficiaries may dispose of the land after an agreed lease period, provided the project is economically viable.

In response to the severe droughts in 2014 and 2015, the Government reprioritised ZAR 330 million from programmes supporting agriculture for FY 2015/16 to drought relief expenditure, and in February 2016, the National Treasury announced that an additional

ZAR 1 billion (USD 86 million) will go towards assisting drought relief. The money will go mostly towards water provision, agriculture support, the provision of transport, and feed for livestock. In the most recent years South Africa has been increasing its border protection for some agricultural commodities (sugar, wheat, poultry, and potatoes). South Africa lifted its ban on meat imports from the US in order to retain preferential access for its farming goods to the US market granted under the African Growth and Opportunity Act (AGOA).

Assessment and recommendations

- The current relatively low level of Market Price Support for South African agriculture is the result of sharp policy reforms implemented in the mid-1990s. Policy changes included deregulating the marketing of agricultural products, liberalising domestic markets, and reducing barriers to agricultural trade. These reforms reduced market price support and budgetary support to commercial farming resulting in a substantial reduction of total support to agriculture.
- Increased budgetary spending went to financing the land reform process and supporting its beneficiaries (subsistence, smallholders and commercial farmers). The main agricultural policy developments and the main challenges in most recent years are related to the implementation of the land reform programme and creating an enabling environment for new farmers. During 2013-15, policies that aimed to ensure the viability of new entrants and to restore and recapitalise failed projects continued to be implemented with increased budgetary spending.
- The main challenge into the future continues to be implementing and effectively targeting support programmes that are tailored to the needs of emerging farmers. Involving private stakeholders (experienced commercial farmers) in the support programmes in the form of private-public partnerships is an efficient way to engage the available resources and address the current weaknesses in supporting programmes and services from public authorities.
- The pace of land reform should be closely linked to the development of the enabling environment for the beneficiaries of land reform; otherwise land redistribution by itself cannot deliver the expected outcomes, such as improving the welfare of the black rural population, increasing food security in rural areas and developing a viable commercial sector.

Table 2.18. **South Africa: Estimates of support to agriculture**

Million ZAR

	1995-97	2013-15	2013	2014	2015p
Total value of production (at farm gate)	**37 243**	**207 077**	**184 197**	**203 400**	**233 632**
***of which:** share of MPS commodities (%)*	74.0	76.2	76.5	75.5	76.7
Total value of consumption (at farm gate)	**34 730**	**196 609**	**173 629**	**195 506**	**220 691**
Producer Support Estimate (PSE)	**3 983**	**6 607**	**5 497**	**5 419**	**8 904**
Support based on commodity output	3 824	3 788	2 733	2 712	5 917
Market Price Support[1]	3 824	3 788	2 733	2 712	5 917
Payments based on output	0	0	0	0	0
Payments based on input use	62	2 384	2 270	2 213	2 668
Based on variable input use	30	1 342	1 156	1 353	1 517
with input constraints	0	0	0	0	0
Based on fixed capital formation	30	1 015	1 081	841	1 122
with input constraints	3	0	0	0	0
Based on on-farm services	1	27	33	19	28
with input constraints	0	0	0	0	0
Payments based on current A/An/R/I, production required	97	435	494	494	318
Based on Receipts / Income	87	435	494	494	318
Based on Area planted / Animal numbers	10	0	0	0	0
with input constraints	0	0	0	0	0
Payments based on non-current A/An/R/I, production required	0	0	0	0	0
Payments based on non-current A/An/R/I, production not required	0	0	0	0	0
With variable payment rates	0	0	0	0	0
with commodity exceptions	0	0	0	0	0
With fixed payment rates	0	0	0	0	0
with commodity exceptions	0	0	0	0	0
Payments based on non-commodity criteria	0	0	0	0	0
Based on long-term resource retirement	0	0	0	0	0
Based on a specific non-commodity output	0	0	0	0	0
Based on other non-commodity criteria	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0
Percentage PSE (%)	**10.9**	**3.1**	**2.9**	**2.6**	**3.8**
Producer NPC (coeff.)	**1.13**	**1.02**	**1.02**	**1.01**	**1.03**
Producer NAC (coeff.)	**1.12**	**1.03**	**1.03**	**1.03**	**1.04**
General Services Support Estimate (GSSE)	**2 120**	**4 216**	**3 753**	**4 363**	**4 532**
Agricultural knowledge and innovation system	1 797	1 627	1 616	1 747	1 518
Inspection and control	146	721	610	694	857
Development and maintenance of infrastructure	175	1 529	1 238	1 588	1 760
Marketing and promotion	2	340	289	334	397
Cost of public stockholding	0	0	0	0	0
Miscellaneous	0	0	0	0	0
Percentage GSSE (% of TSE)	**35.2**	**39.6**	**40.6**	**44.6**	**33.7**
Consumer Support Estimate (CSE)	**-3 922**	**-3 365**	**-2 037**	**-2 119**	**-5 941**
Transfers to producers from consumers	-3 681	-3 037	-1 886	-2 119	-5 107
Other transfers from consumers	-382	-344	-161	0	-872
Transfers to consumers from taxpayers	0	0	0	0	0
Excess feed cost	141	16	11	0	38
Percentage CSE (%)	**-11.4**	**-1.6**	**-1.2**	**-1.1**	**-2.7**
Consumer NPC (coeff.)	**1.14**	**1.02**	**1.01**	**1.01**	**1.03**
Consumer NAC (coeff.)	**1.13**	**1.02**	**1.01**	**1.01**	**1.03**
Total Support Estimate (TSE)	**6 103**	**10 823**	**9 250**	**9 782**	**13 436**
Transfers from consumers	4 063	3 381	2 047	2 119	5 978
Transfers from taxpayers	2 422	7 785	7 364	7 663	8 329
Budget revenues	-382	-344	-161	0	-872
Percentage TSE (% of GDP)	**1.0**	**0.3**	**0.3**	**0.3**	**0.3**
GDP deflator (1995-97=100)	**100**	**1 910**	**1 778**	**1 906**	**2 044**

Note: 1995-97 and 2013-15: unweighted averages. p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

A/An/R/I: Area planted/Animal numbers/Receipts/Income.

1. Market Price Support (MPS) is net of producer levies and excess feed cost. MPS commodities for South Africa are: wheat, maize, sunflower, sugar, milk, beef and veal, pig meat, sheep meat, poultry, eggs, peanuts, grapes, oranges and apples.

Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database). DOI: dx.doi.org/10.1787/agr-pcse-data-en.

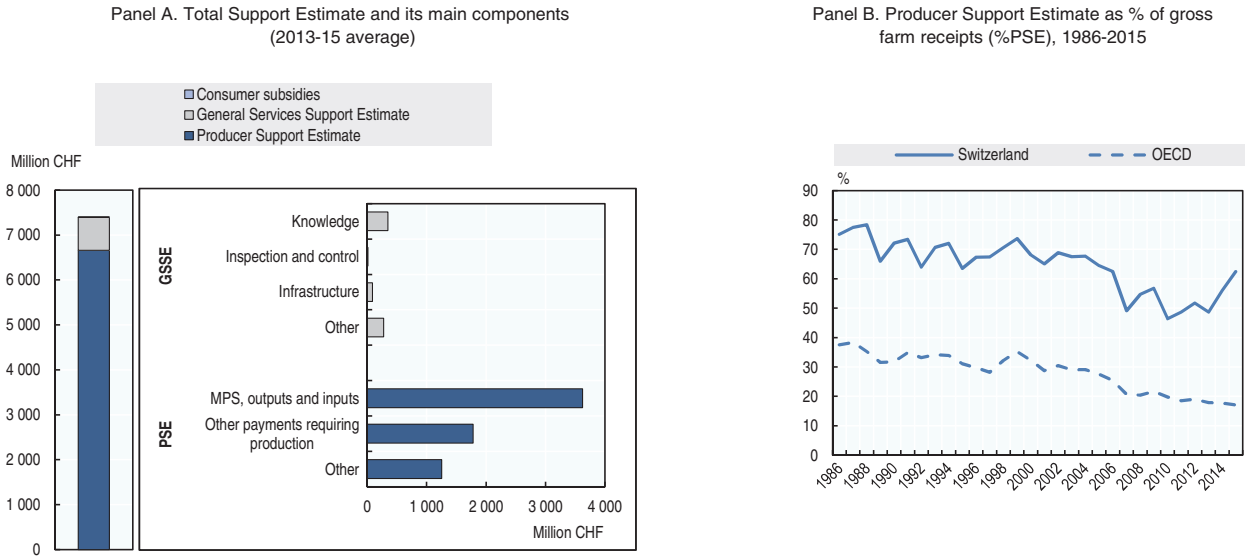
StatLink http://dx.doi.org/10.1787/888933375976

2.19. Switzerland

Support to agriculture

Switzerland has progressively reduced its support to agriculture but the change is relatively moderate and support remains high in terms of its share on gross farm receipts, which is three times above the OECD average (Figure 2.19). Total support estimate to agriculture (TSE) was around 1% of GDP in the most recent years. The direct support to farms (PSE) is the dominant part of the TSE. Support based on output (including MPS) and input use is the most important element of the support. The main element of the General Services Support Estimate (GSSE) is payments financing the Agricultural knowledge and innovation system, which is almost a half of the GSSE expenditure.

Figure 2.19. **Switzerland: Level, structure and evolution of agricultural support**



Source: OECD (2016), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en.*

StatLink *http://dx.doi.org/10.1787/888933374595*

One of the main components of support provided to Swiss farming is market price support (MPS) resulting from important trade barriers applied at the border. Over the analysed period the MPS has been reduced from 80% to around 50% of total support to farmers. Also the level of price distortions has been significantly reduced, although domestic prices were on average 60% above world prices in 2013-15. Switzerland also provides important direct payments to farms (all subject to environmental cross-compliance) in the form of payments per area to secure food supplies, payments to maintain farming in less favoured conditions and in the form payments to farmers who voluntarily apply stricter farming practices related to environmental and animal welfare objectives. The role of the direct payments has been increasing over time and while it represented around 20% of total support in the 1980s it has increased to around 50% in the current years.

Main policy changes

Switzerland adopted a new policy framework for the period 2014-17 (*Politique Agricole* 2014-17). The main change is the suppression of general area payments and reallocation of payments more closely related to specific objectives (agricultural practices)

complemented by a system of transition payments to make the reform socially acceptable. Although the structure of the programmes providing direct payments is set for the whole period 2014-17 and the yearly budgeted amount is stable, there were important shifts within those payments in 2015 (second year of the implementation of AP 2017). Some payments, mainly to contribute to landscape quality and biodiversity have increased, while the transitional payments were reduced. On the other side, there were no further reforms to the border measures and the protection remains relatively high. The export subsidies for selected processed products were increased in 2015 from the budgeted CHF 70 million to CHF 95.6 million, to compensate for a sharp strengthening of the CHF related to the end of intervention of the Swiss Central Bank.

Assessment and recommendations

- The removal of milk price controls, together with the elimination of export subsidies on primary agricultural products and the reduction of some tariff barriers have a potential to improve economic efficiency of the sector. Further reduction of import barriers and the elimination of the export subsidies to processed products should be considered to further reduce the burden to consumers and interference with markets.
- Security of food supply should be sought through a more competitive agriculture rather than by direct payments. Much, but not all, of Swiss farming occurs in difficult natural conditions and support policies maintain production where it would not otherwise occur. A better distinction could be made, though, between policies that address market failures (the provision of positive externalities and public goods as well as the avoidance of negative externalities), and those that address income problems.
- Post 2017, the focus should be on further developing a set of better targeted direct payments to meet the various societal concerns and to further reduce border protection in order to meet the declared (and sometimes conflicting) objectives at the lowest costs to consumers and taxpayers. This may result in a reduced amount of total direct payments to farms. Instead some of those payments may be redirected to general services type support (e.g. knowledge transfer) in order to strengthen the productivity of the sector.
- Switzerland has made great progress in reducing environmental pressures from agriculture. For some objectives such as sustainable use of resources and animal welfare the existing regulations could be made more stringent, while animal welfare and environmental compensation payments can be reduced. In practical terms current cross compliance requirements can be incorporated into mandatory regulation, which then provides a new baseline for more stringent cross-compliance requirements linked to support payments.

Table 2.19. **Switzerland: Estimates of support to agriculture**

Million CHF

	1986-88	1995-97	2013-15	2013	2014	2015p
Total value of production (at farm gate)	**12 486**	**11 619**	**8 433**	**8 448**	**8 432**	**8 418**
of which: *share of MPS commodities (%)*	61.9	58.3	57.2	54.9	58.8	57.8
Total value of consumption (at farm gate)	**15 004**	**13 482**	**10 160**	**10 417**	**9 994**	**10 069**
Producer Support Estimate (PSE)	**10 741**	**9 352**	**6 660**	**5 841**	**6 692**	**7 446**
Support based on commodity output	9 323	6 912	3 421	2 580	3 461	4 223
Market Price Support[1]	9 281	6 829	3 127	2 281	3 168	3 930
Payments based on output	42	83	295	299	293	293
Payments based on input use	562	407	202	202	196	208
Based on variable input use	454	309	71	80	67	67
with input constraints	0	180	4	13	0	0
Based on fixed capital formation	72	78	131	121	130	141
with input constraints	0	0	8	0	6	17
Based on on-farm services	36	21	0	0	0	0
with input constraints	0	0	0	0	0	0
Payments based on current A/An/R/I, production required	612	1 203	1 048	1 332	894	918
Based on Receipts / Income	15	0	0	0	0	0
Based on Area planted / Animal numbers	597	1 203	1 048	1 332	894	918
with input constraints	340	1 050	1 001	1 284	849	869
Payments based on non-current A/An/R/I, production required	28	569	733	101	1 047	1 052
Payments based on non-current A/An/R/I, production not required	0	0	561	1 196	308	178
With variable payment rates	0	0	0	0	0	0
with commodity exceptions	0	0	0	0	0	0
With fixed payment rates	0	0	561	1 196	308	178
with commodity exceptions	0	0	0	0	0	0
Payments based on non-commodity criteria	0	61	487	223	576	663
Based on long-term resource retirement	0	0	0	0	0	0
Based on a specific non-commodity output	0	61	487	223	576	663
Based on other non-commodity criteria	0	0	0	0	0	0
Miscellaneous payments	216	200	207	208	210	204
Percentage PSE (%)	**77.0**	**66.1**	**55.7**	**48.6**	**56.0**	**62.4**
Producer NPC (coeff.)	**4.54**	**2.80**	**1.61**	**1.37**	**1.60**	**1.86**
Producer NAC (coeff.)	**4.36**	**2.96**	**2.29**	**1.95**	**2.27**	**2.66**
General Services Support Estimate (GSSE)	**677**	**590**	**733**	**726**	**730**	**742**
Agricultural knowledge and innovation system	173	164	350	343	352	356
Inspection and control	14	15	13	14	13	13
Development and maintenance of infrastructure	126	83	91	90	89	95
Marketing and promotion	45	45	59	57	58	62
Cost of public stockholding	103	83	38	38	38	38
Miscellaneous	216	200	180	184	179	179
Percentage GSSE (% of TSE)	**5.4**	**5.4**	**10.0**	**11.0**	**9.8**	**9.1**
Consumer Support Estimate (CSE)	**-10 340**	**-7 572**	**-3 576**	**-2 763**	**-3 596**	**-4 368**
Transfers to producers from consumers	-9 332	-7 134	-2 898	-2 064	-2 950	-3 679
Other transfers from consumers	-2 327	-1 717	-707	-721	-680	-721
Transfers to consumers from taxpayers	1 099	1 053	9	11	8	7
Excess feed cost	221	227	21	12	26	24
Percentage CSE (%)	**-74.3**	**-60.9**	**-35.3**	**-26.5**	**-36.0**	**-43.4**
Consumer NPC (coeff.)	**4.50**	**2.91**	**1.57**	**1.36**	**1.57**	**1.78**
Consumer NAC (coeff.)	**3.91**	**2.56**	**1.56**	**1.36**	**1.56**	**1.77**
Total Support Estimate (TSE)	**12 517**	**10 995**	**7 401**	**6 578**	**7 430**	**8 195**
Transfers from consumers	11 660	8 851	3 605	2 785	3 630	4 399
Transfers from taxpayers	3 185	3 860	4 503	4 513	4 479	4 517
Budget revenues	-2 327	-1 717	-707	-721	-680	-721
Percentage TSE (% of GDP)	**4.6**	**2.8**	**1.2**	**1.0**	**1.2**	**1.3**
GDP deflator (1986-88=100)	**100**	**125**	**138**	**139**	**138**	**136**

Note: 1986-88, 1995-97 and 2013-15: unweighted averages. p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

A/An/R/I: Area planted/Animal numbers/Receipts/Income.

1. Market Price Support (MPS) is net of producer levies and excess feed cost. MPS commodities for Switzerland are: wheat, maize, barley, rapeseed, sugar, milk, beef and veal, sheep meat, pig meat, poultry and eggs.

Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database). DOI: dx.doi.org/10.1787/agr-pcse-data-en.

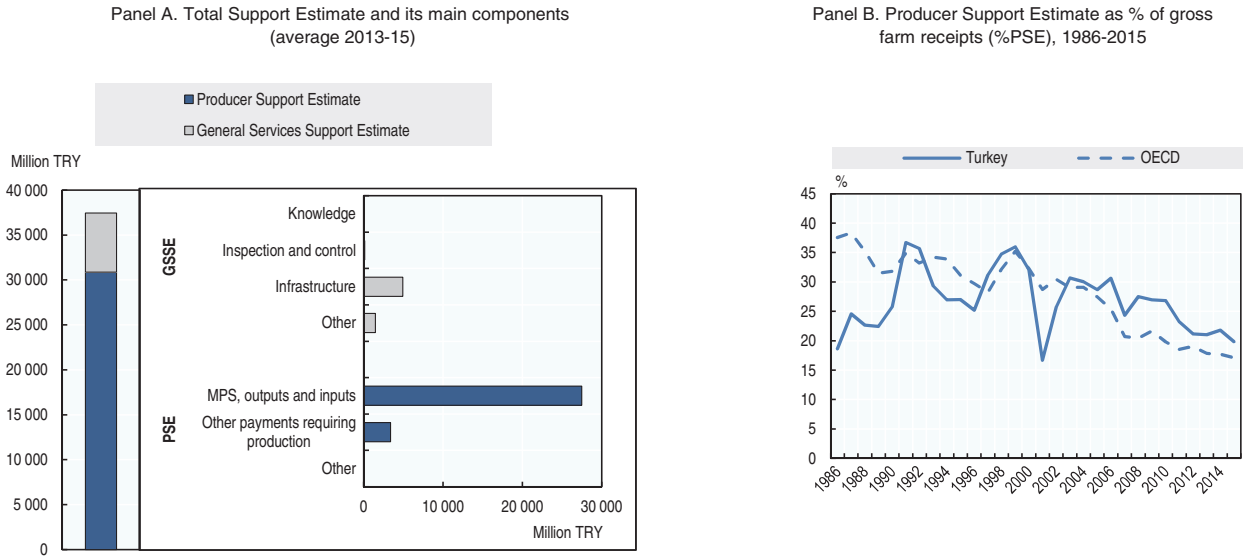
StatLink http://dx.doi.org/10.1787/888933375988

2.20. Turkey

Support to agriculture

Despite a series of ambitious reforms since the late 1990s, the level of support made available varies from year to year and remains higher than the average for the OECD area. The most distorting forms of support prevail as Market Price Support accounts for three-fourths of the producer support (Figure 2.20). Total support estimate to agriculture (TSE) was around 2% of GDP in most recent years. Payments based on output and input use are the most important element of the support. As for the General Services Support Estimate (GSSE) the main element is financing the development and maintenance of infrastructure, which accounts for approximately 80% of the GSSE expenditure.

Figure 2.20. **Turkey: Level, structure and evolution of agricultural support**



Source: OECD (2016), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en.*

StatLink *http://dx.doi.org/10.1787/888933374607*

The level of price distortions has been reduced only slightly: domestic prices remain on average 20% above world prices. Decoupled direct payments were abolished in 2009, while payments based on commodity output have increased since then. The main instrument of direct payments to farms in Turkey is deficiency payments ("premium payments") provided for the products that are in short domestic supply.

Main policy changes

The strategic objectives of agricultural policies, as identified in the 10th Development Plan (2014-18) are to develop a globally competitive and environmentally-friendly agricultural sector, whose fundamental aim is to provide sufficient and balanced nutrition to population.

After the abolition of decoupled direct payments in 2009, commodity-specific deficiency payments and the payments based on current area or animal number became the main programme of producer support. Recently, Turkey introduced a reform to the deficiency payment to differentiate the crops that will be eligible for the payments to rationalize the production structure based on the most suitable ecological conditions.

Assessment and recommendations

- Turkey has made remarkable progress in the last decade towards strengthening the agricultural sector's legal and institutional framework.
- Since 1986-88, policy efforts aimed at improving market orientation have been variable. There have been *ad hoc* changes to policy settings within a macro-economic context of high inflation and volatile exchange rates. The share of producer support in gross farm receipts (%PSE) in 2013-15 remained almost unchanged from 1986-88 levels, at around 20%, which is slightly higher than the OECD average.
- Producer support largely derives from the most market distorting measures, hindering the sustained improvements in agricultural productivity. Further efforts are required to reduce the most distorting support.
- Greater efforts need to be made to transform the state economic enterprises into economically viable entities operating under competitive market conditions.
- More public investment is required into agriculture knowledge and innovation system which so far has received a very small share of total support.

Table 2.20. **Turkey: Estimates of support to agriculture**

Million TRY

	1986-88	1995-97	2013-15	2013	2014	2015p
Total value of production (at farm gate)	**18**	**2 440**	**140 448**	**130 446**	**140 078**	**150 822**
***of which:** share of MPS commodities (%)*	56.5	74.9	74.6	75.3	75.3	73.2
Total value of consumption (at farm gate)	**15**	**2 227**	**109 404**	**99 385**	**111 291**	**117 535**
Producer Support Estimate (PSE)	**4**	**757**	**30 868**	**28 964**	**32 138**	**31 501**
Support based on commodity output	3	564	25 965	24 172	27 466	26 259
Market Price Support[1]	3	555	23 237	21 532	24 715	23 463
Payments based on output	0	10	2 729	2 640	2 751	2 796
Payments based on input use	1	189	1 526	1 655	1 348	1 574
Based on variable input use	1	182	1 207	1 299	1 071	1 251
with input constraints	0	0	0	0	0	0
Based on fixed capital formation	0	6	296	333	254	301
with input constraints	0	0	0	0	0	0
Based on on-farm services	0	1	22	22	23	22
with input constraints	0	0	0	0	0	0
Payments based on current A/An/R/I, production required	0	4	3 377	3 137	3 324	3 668
Based on Receipts / Income	0	0	392	290	357	529
Based on Area planted / Animal numbers	0	4	2 984	2 847	2 967	3 139
with input constraints	0	0	57	37	53	81
Payments based on non-current A/An/R/I, production required	0	0	0	0	0	0
Payments based on non-current A/An/R/I, production not required	0	0	0	0	0	0
With variable payment rates	0	0	0	0	0	0
with commodity exceptions	0	0	0	0	0	0
With fixed payment rates	0	0	0	0	0	0
with commodity exceptions	0	0	0	0	0	0
Payments based on non-commodity criteria	0	0	0	0	0	0
Based on long-term resource retirement	0	0	0	0	0	0
Based on a specific non-commodity output	0	0	0	0	0	0
Based on other non-commodity criteria	0	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0	0
Percentage PSE (%)	**21.9**	**27.8**	**20.9**	**21.0**	**21.8**	**19.8**
Producer NPC (coeff.)	**1.25**	**1.30**	**1.20**	**1.21**	**1.21**	**1.19**
Producer NAC (coeff.)	**1.28**	**1.39**	**1.26**	**1.27**	**1.28**	**1.25**
General Services Support Estimate (GSSE)	**0**	**278**	**6 582**	**6 141**	**6 351**	**7 255**
Agricultural knowledge and innovation system	0	4	77	82	73	76
Inspection and control	0	7	111	105	116	111
Development and maintenance of infrastructure	0	58	4 924	4 582	5 133	5 056
Marketing and promotion	0	202	1 471	1 371	1 029	2 012
Cost of public stockholding	0	0	0	0	0	0
Miscellaneous	0	6	0	0	0	0
Percentage GSSE (% of TSE)	**6.9**	**26.3**	**17.6**	**17.5**	**16.5**	**18.7**
Consumer Support Estimate (CSE)	**-3**	**-543**	**-15 261**	**-15 285**	**-15 423**	**-15 076**
Transfers to producers from consumers	-3	-543	-16 137	-16 147	-16 249	-16 013
Other transfers from consumers	0	-29	-170	-93	-269	-147
Transfers to consumers from taxpayers	0	0	0	0	0	0
Excess feed cost	0	29	1 045	955	1 095	1 084
Percentage CSE (%)	**-21.1**	**-23.6**	**-14.0**	**-15.4**	**-13.9**	**-12.8**
Consumer NPC (coeff.)	**1.29**	**1.33**	**1.18**	**1.20**	**1.17**	**1.16**
Consumer NAC (coeff.)	**1.27**	**1.31**	**1.16**	**1.18**	**1.16**	**1.15**
Total Support Estimate (TSE)	**5**	**1 035**	**37 450**	**35 105**	**38 489**	**38 756**
Transfers from consumers	3	572	16 306	16 240	16 519	16 160
Transfers from taxpayers	1	492	21 313	18 957	22 240	22 743
Budget revenues	0	-29	-170	-93	-269	-147
Percentage TSE (% of GDP)	**4.0**	**4.5**	**2.1**	**2.2**	**2.2**	**2.0**
GDP deflator (1986-88=100)	**100**	**13 840**	**542 461**	**501 336**	**543 109**	**582 939**

Note: 1986-88, 1995-97 and 2013-15: unweighted averages. p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

A/An/R/I: Area planted/Animal numbers/Receipts/Income.

1. Market Price Support (MPS) is net of producer levies and excess feed cost. MPS commodities for Turkey are: wheat, maize, barley, sunflower, sugar, potatoes, tomatoes, grapes, apples, cotton, tobacco, milk, beef and veal, sheep meat, poultry and eggs.

Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database). DOI: dx.doi.org/10.1787/agr-pcse-data-en.

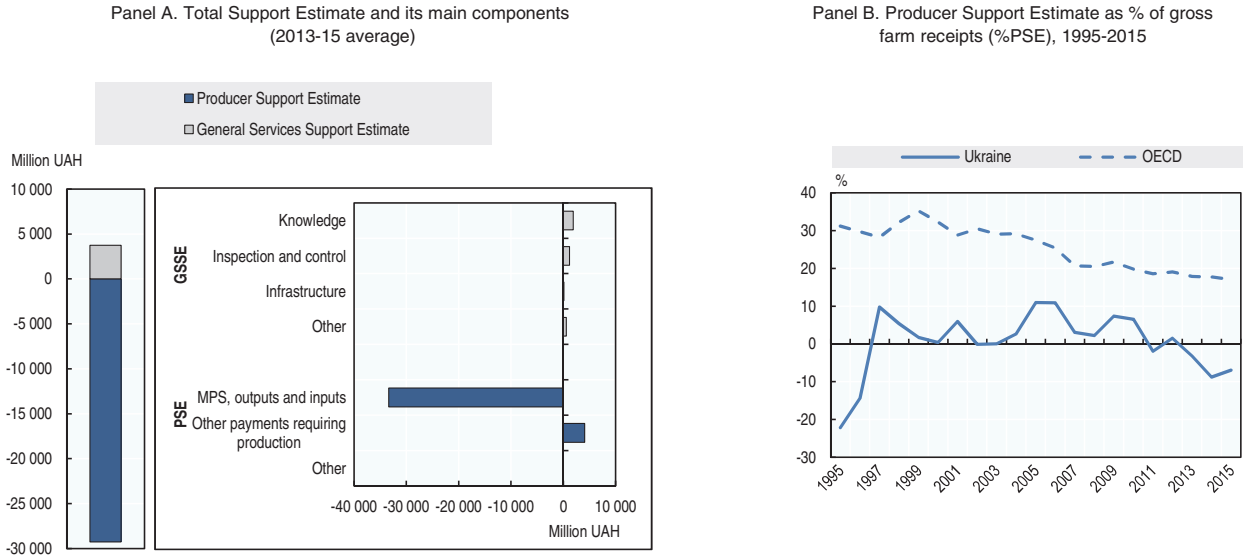
StatLink http://dx.doi.org/10.1787/888933375991

2.21. Ukraine

Support to agriculture

Producer support has been negative in recent years. In 2015, it slightly increased compared to 2014, but remained negative at minus 7%. Policies continue to tax agricultural producers on aggregate, although this outcome results from a combination of taxation of export sectors and protection of import sectors. The level of general services support shrank further.

Figure 2.21. **Ukraine: Level, structure and evolution of agricultural support**



Source: OECD (2016), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en.*

StatLink http://dx.doi.org/10.1787/888933374614

Main policy changes

Ukraine ratified the Association Agreement with the European Union in September 2014 and has begun its implementation. The Ministry of Agrarian Policy and Food of Ukraine (MAPF) has prepared "The Strategy for Agriculture and Rural Development 2015-2020", which was approved in late 2015. In the context of budget constraints, the government focused on deregulation and liberalisation of the sector. The Cabinet of Ministers of Ukraine revised and substantially reduced quantities of grain and sugar beet procurements and completely abolished wheat purchases for state grain reserves for the 2015-16 season. The number of agricultural programmes was reduced from 32 in 2014 to 19 in 2015, with many programmes having obtained either less or no funding in 2015. Despite the initial intentions to end support based on Value Added Tax (VAT) concessions, it continued to be an important policy. On 1 January 2016, the Deep and Comprehensive Free Trade Area between the European Union and Ukraine entered into force. Starting from 1 January 2016, the Russian Federation has suspended the free trade regime with Ukraine under the Agreement on Free Trade in the Commonwealth of Independent States (CIS) Area and extended to Ukraine its ban on imports of agro-food products from the European Union. Ukraine subsequently prohibited a broad range of agro-food imports from the Russian Federation.

Assessment and recommendations

- On average, policies tax producers – this, however, results from taxation of export sectors and protection of import sectors. Most policies are implemented on an *ad hoc* basis and are missing a long-term strategic orientation.
- Financial constraints led to the elimination of some important tax concessions to agriculture. The number of agricultural programmes was substantially reduced in 2015, with many programmes either less or not funded at all.
- Export policies should be reformed. Export restrictions are trade distorting and have a dampening effect on domestic producer prices. By reducing the profitability of the country's most competitive commodities, they impair the international competitiveness of the sector. VAT refunds on export sales are ineffective, create distrust and harm business environment.
- General services support declined, mainly due to the cuts in the budget for inspection and control services. In deteriorating economic conditions, the government focused on deregulation and liberalisation of the sector. While the policy of deregulation deserves attention, maintaining an adequate level of basic general services to producers should remain a priority. Moreover, compliance with EU food safety, veterinary and phyto-sanitary requirements remains a major barrier for Ukraine's access to the EU market.
- The sector showed an impressive total factor productivity growth during 2003-12. This, however, occurred under conditions of a deteriorating capital stock and to sustain high productivity growth major investment will be required in the upcoming years. However, high economic and political uncertainties lead farms and external investors to delay investments. A return to macroeconomic and political stability remains a critical condition for maintaining a productive agricultural sector.
- The high dependence of the country's agricultural sector on weather requires elaboration of a system of measures allowing an effective management of weather-related risks and adaptation of agricultural production to climate change.

Table 2.21. **Ukraine: Estimates of support to agriculture**

Million UAH

	1995-97	2013-15	2013	2014	2015p
Total value of production (at farm gate)	**22 623**	**425 861**	**330 901**	**399 704**	**546 978**
***of which:** share of MPS commodities (%)*	87.7	83.0	81.0	83.0	84.9
Total value of consumption (at farm gate)	**15 842**	**250 434**	**213 308**	**228 685**	**309 309**
Producer Support Estimate (PSE)	**-1 775**	**-29 264**	**-11 157**	**-36 798**	**-39 836**
Support based on commodity output	-2 850	-49 266	-28 486	-55 165	-64 146
Market Price Support[1]	-2 866	-50 315	-30 862	-55 936	-64 146
Payments based on output	16	1 049	2 376	771	0
Payments based on input use	551	15 891	13 257	14 105	20 310
Based on variable input use	391	15 565	12 401	14 000	20 293
with input constraints	0	0	0	0	0
Based on fixed capital formation	139	326	856	105	17
with input constraints	0	0	0	0	0
Based on on-farm services	21	0	0	0	0
with input constraints	0	0	0	0	0
Payments based on current A/An/R/I, production required	525	4 111	4 072	4 262	4 000
Based on Receipts / Income	525	3 767	3 500	3 800	4 000
Based on Area planted / Animal numbers	0	345	572	462	0
with input constraints	0	0	0	0	0
Payments based on non-current A/An/R/I, production required	0	0	0	0	0
Payments based on non-current A/An/R/I, production not required	0	0	0	0	0
With variable payment rates	0	0	0	0	0
with commodity exceptions	0	0	0	0	0
With fixed payment rates	0	0	0	0	0
with commodity exceptions	0	0	0	0	0
Payments based on non-commodity criteria	0	0	0	0	0
Based on long-term resource retirement	0	0	0	0	0
Based on a specific non-commodity output	0	0	0	0	0
Based on other non-commodity criteria	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0
Percentage PSE (%)	**-8.9**	**-6.3**	**-3.2**	**-8.8**	**-7.0**
Producer NPC (coeff.)	**0.88**	**0.88**	**0.90**	**0.86**	**0.88**
Producer NAC (coeff.)	**0.93**	**0.94**	**0.97**	**0.92**	**0.93**
General Services Support Estimate (GSSE)	**521**	**3 750**	**5 253**	**3 487**	**2 509**
Agricultural knowledge and innovation system	131	1 900	1 995	1 951	1 755
Inspection and control	40	1 164	1 602	1 292	597
Development and maintenance of infrastructure	329	118	293	9	51
Marketing and promotion	5	28	56	16	12
Cost of public stockholding	0	459	1 168	180	28
Miscellaneous	17	81	139	39	66
Percentage GSSE (% of TSE)	..	..	..	..	..
Consumer Support Estimate (CSE)	**3 108**	**28 652**	**11 999**	**35 443**	**38 513**
Transfers to producers from consumers	3 210	36 733	20 273	43 029	46 898
Other transfers from consumers	245	-754	-2 166	20	-118
Transfers to consumers from taxpayers	0	0	0	0	0
Excess feed cost	-346	-7 327	-6 108	-7 605	-8 268
Percentage CSE (%)	**24.2**	**11.2**	**5.6**	**15.5**	**12.5**
Consumer NPC (coeff.)	**0.83**	**0.88**	**0.92**	**0.84**	**0.87**
Consumer NAC (coeff.)	**0.84**	**0.90**	**0.95**	**0.87**	**0.89**
Total Support Estimate (TSE)	**-1 253**	**-25 514**	**-5 904**	**-33 311**	**-37 327**
Transfers from consumers	-3 454	-35 979	-18 107	-43 049	-46 780
Transfers from taxpayers	1 957	11 219	14 369	9 717	9 572
Budget revenues	245	-754	-2 166	20	-118
Percentage TSE (% of GDP)	..	..	..	..	..
GDP deflator (1995-97=100)	**100**	**352**	**333**	**353**	**370**

.. Not available.

Note: 1995-97 and 2013-15: unweighted averages. p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

A/An/R/I: Area planted/Animal numbers/Receipts/Income.

1. Market Price Support (MPS) is net of producer levies and excess feed cost. MPS commodities for Ukraine are: wheat, maize, rye, barley, oats, sunflower, sugar, potatoes, milk, beef and veal, pig meat, poultry and eggs.

Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database). DOI: dx.doi.org/10.1787/agr-pcse-data-en.

StatLink http://dx.doi.org/10.1787/888933376003

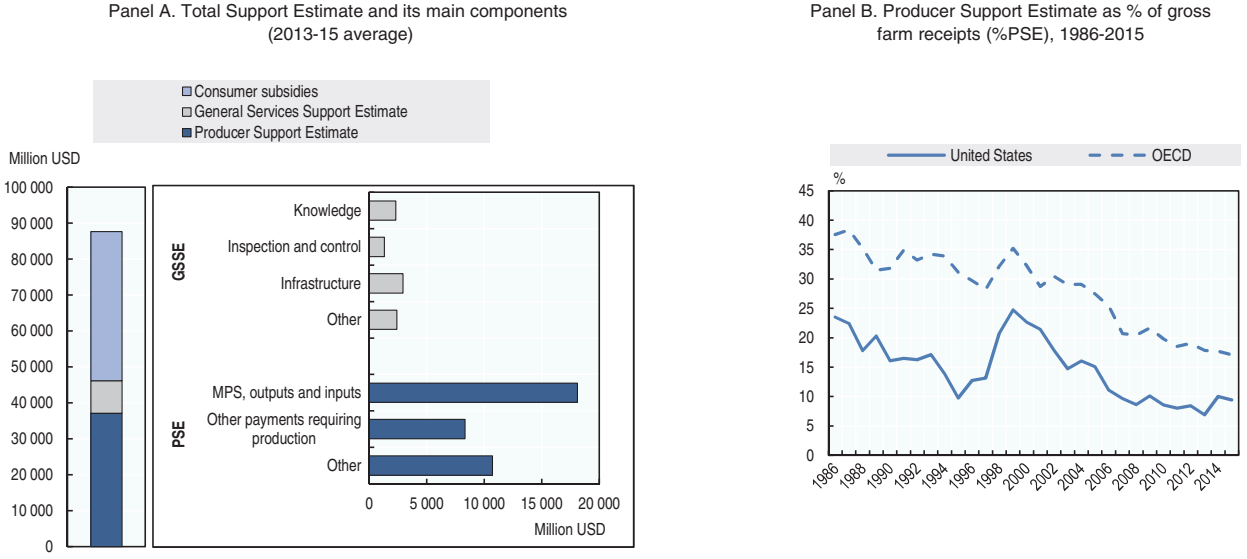
2.22. United States

Support to agriculture

Total support to agriculture represents 0.5% of US GDP in 2013-15. Support for general services provided to agriculture (GSSE) represents 11% of total support (TSE) in 2013-15.[2] Producer support as a percentage of gross farm receipts is at about half the level of the OECD average.

The share of payments based on commodity output and payments based on input use in the producer support estimate (PSE) remains high at 49% of the PSE (the OECD average is at 60%). However, 38% of the payments based on input use in the United States are also subject to voluntary environmental constraints. Payments requiring production (based on current A/An/R/I) represent 20% of the PSE. These payments are related primarily to farm insurance and are based on the difference between observed production, yield or revenue, and a pre-planting reference at individual farm or county level. Close to half of the Total Support Estimate is made up of support to consumers from taxpayers through the Supplemental Nutrition Assistance Program (SNAP).

Figure 2.22. **United States: Level, structure and evolution of agricultural support**



Source: OECD (2016), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en.*

StatLink *http://dx.doi.org/10.1787/888933374622*

Main policy changes

With implementation of the 2014 Farm Act underway there have been few domestic policy developments in the United States in calendar year 2015. There have been some developments related to the implementation of the Farm Act, particularly expansions of programmes accomplished in 2015. However, most implementation began in 2014 and has remained unchanged in 2015. Some important developments have occurred in the area of preferential and regional trade agreements. For example, the **Trade Preferences Extension Act of 2015** (TPEA) provides preferential duty-free entry for a wide range of products imported from designated beneficiary countries and territories in **Africa**. The US completed negotiation of the **Trans-Pacific Partnership** (TPP) in October 2015 while continuing negotiations with the **European Union** on the **Transatlantic Trade and**

Investment Partnership (TTIP). Other developments concern labelling and food safety. Finally, other initiatives encourage new farmers or target rural poverty.

Assessment and recommendations

- Levels of producer support and border protection have decreased substantially since 1986-88. However, since 2002 the decline has been primarily due to higher world commodity prices, as several of the support policies in place are linked to changes in prices. Overall, the average support for 2013-15 represented 8.8% of gross farm receipts, with support in 2015 at 9.4%.
- The increasing emphasis on insurance and risk management policy tools is, in principle, a good approach to providing support to farmers when they are in need. However, the policy tools within the 2014 Farm Act may transfer some part of normal risks from farmers to the public budget.
- While established environmental programmes like the Environmental Quality Incentives Program (EQIP) and the programmes consolidated into the Agricultural Conservation Easement Program (ACEP) appear to be effective in addressing soil conservation and water pollution problems, careful assessments are needed to ensure that newer programmes like the Regional Conservation Partnership Program are well targeted to providing intended environmental benefits at a local level.
- Overall, the long-term effects on sustainable improvements in agricultural productivity and efficiency brought about by the 2014 Farm Act require continued assessment.

Table 2.22. **United States: Estimates of support to agriculture**

Million USD

	1986-88	1995-97	2013-15	2013	2014	2015p
Total value of production (at farm gate)	**143 469**	**200 325**	**393 982**	**394 251**	**405 217**	**382 477**
***of which:** share of MPS commodities (%)*	78.3	76.5	79.2	78.8	79.4	79.3
Total value of consumption (at farm gate)	**121 087**	**162 235**	**304 215**	**306 185**	**318 670**	**287 791**
Producer Support Estimate (PSE)	**35 337**	**25 617**	**37 126**	**29 020**	**43 572**	**38 785**
Support based on commodity output	15 114	11 487	9 409	3 404	13 935	10 888
Market Price Support[1]	12 003	11 336	8 983	3 079	13 390	10 480
Payments based on output	3 111	151	426	325	545	408
Payments based on input use	7 061	6 641	8 677	9 238	8 376	8 416
Based on variable input use	3 697	3 088	2 772	3 413	2 719	2 183
with input constraints	739	264	594	587	606	588
Based on fixed capital formation	1 233	554	1 745	1 958	1 641	1 636
with input constraints	1 233	537	1 697	1 876	1 602	1 613
Based on on-farm services	2 131	2 999	4 160	3 867	4 015	4 598
with input constraints	349	543	1 209	1 188	1 264	1 176
Payments based on current A/An/R/I, production required	12 231	1 825	8 325	9 036	8 022	7 915
Based on Receipts / Income	912	721	1 598	1 269	1 693	1 833
Based on Area planted / Animal numbers	11 319	1 104	6 726	7 767	6 329	6 082
with input constraints	2 565	557	6 611	7 591	6 209	6 033
Payments based on non-current A/An/R/I, production required	0	0	0	0	0	0
Payments based on non-current A/An/R/I, production not required	338	3 824	8 653	4 995	11 312	9 653
With variable payment rates	0	0	4 936	0	5 191	9 618
with commodity exceptions	0	0	4 936	0	5 191	9 618
With fixed payment rates	338	3 824	3 717	4 995	6 122	35
with commodity exceptions	0	3 824	2 923	4 043	4 726	0
Payments based on non-commodity criteria	592	1 839	2 062	2 347	1 927	1 912
Based on long-term resource retirement	592	1 839	2 028	2 283	1 903	1 897
Based on a specific non-commodity output	0	0	0	0	0	0
Based on other non-commodity criteria	0	0	34	64	24	16
Miscellaneous payments	0	0	0	0	0	0
Percentage PSE (%)	**21.2**	**11.9**	**8.8**	**6.9**	**10.0**	**9.4**
Producer NPC (coeff.)	**1.12**	**1.06**	**1.02**	**1.01**	**1.04**	**1.03**
Producer NAC (coeff.)	**1.27**	**1.14**	**1.10**	**1.07**	**1.11**	**1.10**
General Services Support Estimate (GSSE)	**3 108**	**4 239**	**9 012**	**10 413**	**7 889**	**8 735**
Agricultural knowledge and innovation system	1 129	1 479	2 311	2 299	2 299	2 335
Inspection and control	372	559	1 328	1 335	1 328	1 320
Development and maintenance of infrastructure	13	27	2 958	4 282	2 017	2 575
Marketing and promotion	495	654	1 189	1 267	1 020	1 279
Cost of public stockholding	0	52	1	4	-1	-1
Miscellaneous	1 100	1 468	1 226	1 226	1 226	1 227
Percentage GSSE (% of TSE)	**6.4**	**8.9**	**10.4**	**11.8**	**8.0**	**11.4**
Consumer Support Estimate (CSE)	**-2 629**	**6 157**	**31 628**	**45 217**	**32 359**	**17 308**
Transfers to producers from consumers	-11 699	-11 146	-8 758	-2 970	-13 019	-10 284
Other transfers from consumers	-1 314	-1 143	-1 090	-271	-1 255	-1 743
Transfers to consumers from taxpayers	10 089	18 437	41 475	48 459	46 633	29 334
Excess feed cost	294	8	0	0	0	0
Percentage CSE (%)	**-2.4**	**4.3**	**12.0**	**17.5**	**11.9**	**6.7**
Consumer NPC (coeff.)	**1.12**	**1.08**	**1.03**	**1.01**	**1.05**	**1.04**
Consumer NAC (coeff.)	**1.03**	**0.96**	**0.89**	**0.85**	**0.89**	**0.94**
Total Support Estimate (TSE)	**48 534**	**48 292**	**87 613**	**87 892**	**98 094**	**76 854**
Transfers from consumers	13 013	12 288	9 847	3 242	14 274	12 026
Transfers from taxpayers	36 835	37 147	78 856	84 922	85 075	66 570
Budget revenues	-1 314	-1 143	-1 090	-271	-1 255	-1 743
Percentage TSE (% of GDP)	**1.0**	**0.6**	**0.5**	**0.5**	**0.6**	**0.4**
GDP deflator (1986-88=100)	**100**	**128**	**181**	**178**	**181**	**183**

Note: 1986-88, 1995-97 and 2013-15: unweighted averages. p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

A/An/R/I: Area planted/Animal numbers/Receipts/Income.

1. Market Price Support (MPS) is net of producer levies and excess feed cost. MPS commodities for the United States are: wheat, maize, barley, sorghum, alfalfa, cotton, rice, soybean, sugar, milk, beef and veal, sheep meat, wool, pig meat, poultry and eggs.

Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database). DOI: dx.doi.org/10.1787/agr-pcse-data-en.

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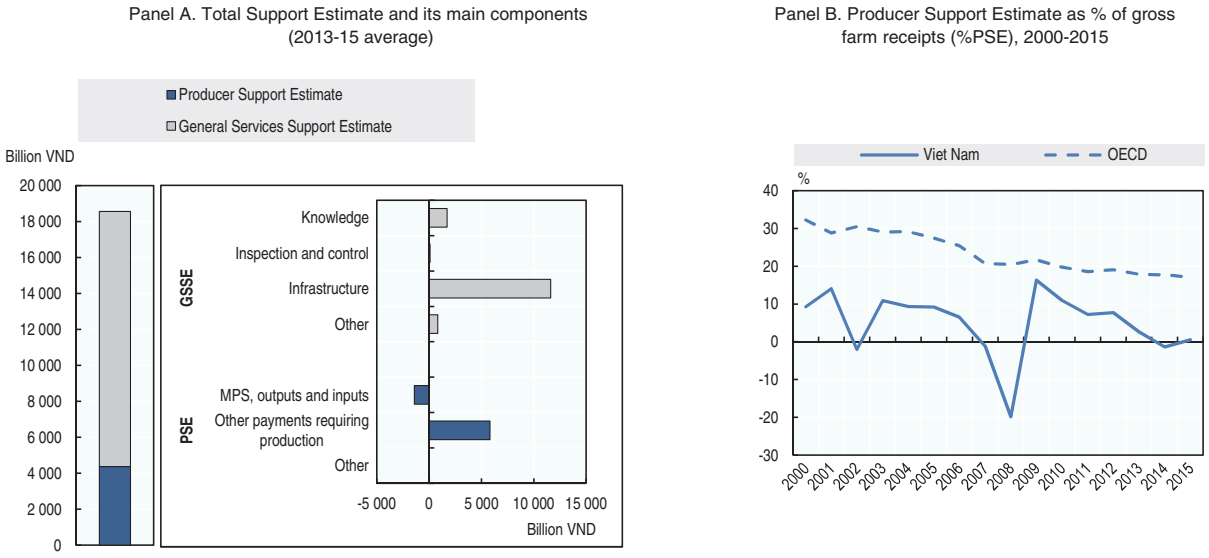
2.23. Viet Nam

Support to agriculture

The level of support to agriculture fluctuates, largely driven by changes in market price support (MPS). An average for 2013-15 was just 0.6%, but it hides varied results across commodities. While producers of import-competing commodities, such as sugar and beef, benefit from tariff protection, producers of several exported commodities are implicitly taxed. Rice producers benefit from a price support system based on target prices designed to provide farmers with a profit of 30% and from direct payments per hectare, tied to maintaining land in rice production. The Total Support Estimate (TSE) is low at 0.5% of GDP. Within the General Services Estimate, the development and maintenance of infrastructure, in particular irrigation, is by far the most important component.

Figure 2.23. **Viet Nam: Level, structure and evolution of agricultural support**



Source: OECD (2016), "Producer and Consumer Support Estimates", *OECD Agriculture Statistics* (database), *http://dx.doi.org/10.1787/agr-pcse-data-en.*

StatLink *http://dx.doi.org/10.1787/888933374630*

Main policy changes

In 2015, basic domestic policy instruments remained unchanged, but Viet Nam continued to be active in pursuing trade liberalisation through regional and bilateral trade agreements. In particular, Viet Nam together with eleven other countries successfully concluded negotiations on a Free Trade Agreement (FTA) within the Trans-Pacific Partnership Agreement (TPP). Viet Nam also signed an FTA with the European Union. While both agreements still need to be ratified, when implemented, they will have wide-reaching implications for all sectors of the Vietnamese economy, including for agriculture. In addition, Viet Nam signed an FTA with the Euroasia Economic Union and the FTA with Korea came into force at the end of the year.

Assessment and recommendations

- Over the next ten years, both domestic and international conditions will be more challenging for Viet Nam's agricultural sector than they were over the previous two decades. Prices of many commodities exported by Viet Nam declined over recent years

from the peaks seen in 2007-08 and are projected to fall further in real terms over the medium term. Most of the easy sources of lifting production, e.g. expanding land area, employing more cheap labour and using higher rates of fertilisers, have been fully exploited and negative environmental impacts are increasingly seen. These will become major challenges for Viet Nam, but will also open opportunities to adopt new technologies, to give incentives for larger farms and to focus attention on quality and higher value added products.

- To improve the enabling environment for agriculture, the re-allocation of factors of production across sectors should be eased and constraints on investment alleviated. Likewise, agricultural institutions and governance systems should be improved by: strengthening of institutional co-ordination between the Ministry of Agriculture and Rural Development and other relevant ministries implementing programmes supporting agriculture; reinforcement of the transparency and accountability of publicly-funded programmes; founding policy decision on adequate and accurate information; and integrating monitoring and review mechanisms into the policy process.
- To improve the allocation of scarce land resources, farm consolidation could be encouraged, including through various forms of co-operation between farmers, and restrictions on crop choice should be removed. Moreover, the scope of compulsory land conversions should be limited and compensations for such conversions should be based on open market land prices. To limit the scope of social conflicts and corruption in the land administration, participatory land use plans could be encouraged and direct transactions between land users without state involvement should be allowed.
- While the waiver of irrigation service fees has increased farmer income, it has several negative side effects. It has reduced the incentive for farmers to save water; it has made the national budget fully responsible for financing operation and maintenance costs in addition to capital investment; and it diminished incentives for irrigation and drainage management companies to provide quality irrigation services. While the government could remain responsible for all capital investment in the irrigation systems, farmers should cover operation and maintenance costs. Re-establishing a water fee based on a per unit of water charge rather than a per hectare charge, as previously applied, would encourage greater water use efficiency.

Notes

1. Complete budgetary information for 2015 was not available within the timeline for the preparation of this Report – support estimates thus cover the period up to 2014.
2. With the introduction of the new calculation method for GSSE in 2015, the GSSE for the US does not include two major sources of previously reported expenditures: 1) the share of the US Supplemental Nutrition Assistance Program (SNAP) expenditures (USD 61 billion in 2015) attributable to the food supply chain beyond the farm; and 2) expenditures on international food assistance (USD 1.4 billion in 2013), both of which had been included under "Marketing and promotion" under the previous GSSE.

Table 2.23. **Viet Nam: Estimates of support to agriculture**

Million VND

	2000-02	2013-15	2013	2014	2015p
Total value of production (at farm gate)	**128 610 574**	**811 974 500**	**746 515 510**	**799 807 710**	**889 600 281**
***of which:** share of MPS commodities (%)*	81.6	77.5	79.3	82.0	71.1
Total value of consumption (at farm gate)	**112 148 440**	**699 038 819**	**614 531 247**	**681 196 766**	**801 388 446**
Producer Support Estimate (PSE)	**8 684 007**	**4 372 957**	**19 886 191**	**-11 280 103**	**4 512 784**
Support based on commodity output	6 863 146	-8 455 068	7 603 222	-22 638 603	-10 329 821
Market Price Support[1]	6 863 146	-8 455 068	7 603 222	-22 638 603	-10 329 821
Payments based on output	0	0	0	0	0
Payments based on input use	1 510 528	7 018 925	7 090 469	7 296 745	6 669 562
Based on variable input use	1 510 528	7 008 440	7 079 984	7 286 260	6 659 077
with input constraints	0	0	0	0	0
Based on fixed capital formation	0	10 485	10 485	10 485	10 485
with input constraints	0	0	0	0	0
Based on on-farm services	0	0	0	0	0
with input constraints	0	0	0	0	0
Payments based on current A/An/R/I, production required	0	5 809 100	5 192 500	4 061 755	8 173 044
Based on Receipts / Income	0	44 667	134 000	0	0
Based on Area planted / Animal numbers	0	5 764 433	5 058 500	4 061 755	8 173 044
with input constraints	0	0	0	0	0
Payments based on non-current A/An/R/I, production required	0	0	0	0	0
Payments based on non-current A/An/R/I, production not required	0	0	0	0	0
With variable payment rates	0	0	0	0	0
with commodity exceptions	0	0	0	0	0
With fixed payment rates	0	0	0	0	0
with commodity exceptions	0	0	0	0	0
Payments based on non-commodity criteria	310 333	0	0	0	0
Based on long-term resource retirement	310 333	0	0	0	0
Based on a specific non-commodity output	0	0	0	0	0
Based on other non-commodity criteria	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0
Percentage PSE (%)	**7.1**	**0.6**	**2.6**	**-1.4**	**0.5**
Producer NPC (coeff.)	**1.07**	**1.00**	**1.01**	**0.98**	**1.01**
Producer NAC (coeff.)	**1.08**	**1.01**	**1.03**	**0.99**	**1.01**
General Services Support Estimate (GSSE)	**3 353 248**	**14 193 876**	**13 119 542**	**14 672 960**	**14 789 124**
Agricultural knowledge and innovation system	349 070	1 694 216	1 699 665	1 681 468	1 701 514
Inspection and control	51 601	74 801	73 560	74 162	76 682
Development and maintenance of infrastructure	2 852 840	11 615 812	10 660 047	12 093 695	12 093 695
Marketing and promotion	18 429	26 715	26 271	26 486	27 386
Cost of public stockholding	81 308	782 332	660 000	797 149	889 848
Miscellaneous	0	0	0	0	0
Percentage GSSE (% of TSE)	**..**	**..**	**..**	**..**	**..**
Consumer Support Estimate (CSE)	**-9 376 321**	**-36 552 584**	**-33 201 967**	**-14 047 572**	**-62 408 213**
Transfers to producers from consumers	-9 459 449	-25 608 530	-32 004 747	-9 451 542	-35 369 303
Other transfers from consumers	-292 172	-18 128 755	-840 906	-11 274 888	-42 270 472
Transfers to consumers from taxpayers	0	0	0	0	0
Excess feed cost	375 300	7 184 702	-356 314	6 678 858	15 231 562
Percentage CSE (%)	**-8.9**	**-5.1**	**-5.4**	**-2.1**	**-7.8**
Consumer NPC (coeff.)	**1.11**	**1.07**	**1.06**	**1.03**	**1.11**
Consumer NAC (coeff.)	**1.10**	**1.05**	**1.06**	**1.02**	**1.08**
Total Support Estimate (TSE)	**12 037 255**	**18 566 833**	**33 005 733**	**3 392 857**	**19 301 909**
Transfers from consumers	9 751 621	43 737 286	32 845 653	20 726 430	77 639 775
Transfers from taxpayers	2 577 806	-7 041 697	1 000 987	-6 058 685	-16 067 394
Budget revenues	-292 172	-18 128 755	-840 906	-11 274 888	-42 270 472
Percentage TSE (% of GDP)	**2.4**	**0.5**	**0.9**	**0.1**	**0.5**
GDP deflator (2000-02=100)	**142**	**471**	**463**	**480**	**..**

.. Not available.

Note: 2000-02 and 2013-15: unweighted averages. p: provisional. NPC: Nominal Protection Coefficient. NAC: Nominal Assistance Coefficient.

A/An/R/I: Area planted/Animal numbers/Receipts/Income.

1. Market Price Support (MPS) is net of producer levies and excess feed cost. MPS commodities for Viet Nam are: rice, rubber, coffee, maize, cashew nuts, sugar, pepper, tea, beef and veal, pig meat, poultry and eggs.

Source: OECD (2016), "Producer and Consumer Support Estimates", OECD Agriculture statistics (database). DOI: dx.doi.org/10.1787/agr-pcse-data-en.

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Contents

Comprehensive country chapters and the Statistical Annex containing detailed background tables with indicators of agricultural support are available in electronic form at ***http://dx.doi.org/10.1787/agr_pol-2016-en***.

Data for the calculations of support are available at ***http://dx.doi.org/10.1787/agr-pcse-data-en.***

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