



OECD-FAO Agricultural Outlook 2010-2019



OECD-FAO Agricultural Outlook 2010-2019



ORGANISATION FOR ECONOMIC
CO-OPERATION AND DEVELOPMENT



FOOD AND AGRICULTURE ORGANIZATION
OF THE UNITED NATIONS

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

The OECD is a unique forum where governments work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an ageing population. The Organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies.

The OECD member countries are: Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The Commission of the European Communities takes part in the work of the OECD.

OECD Publishing disseminates widely the results of the Organisation's statistics gathering and research on economic, social and environmental issues, as well as the conventions, guidelines and standards agreed by its members.

THE FOOD AND AGRICULTURE ORGANIZATION (FAO) OF THE UNITED NATIONS

The Food and Agriculture Organization of the United Nations leads international efforts to defeat hunger. FAO's mandate is to raise levels of nutrition, improve agricultural productivity, better the lives of rural populations and contribute to the growth of the world economy. Serving both developed and developing countries, FAO acts as a neutral forum where all nations meet as equals to negotiate agreements and debate policy. FAO is also a source of knowledge providing access to information in print and electronic format. We help developing countries and countries in transition modernize and improve agriculture, forestry and fisheries practices and ensure good nutrition for all. Since our founding in 1945, we have focused special attention on developing rural areas, home to 70 per cent of the world's poor and hungry people. FAO's activities comprise four main areas: putting information within reach; sharing policy expertise; providing a meeting place for nations; bringing knowledge to the field.

This work is published under the responsibilities of the Secretary-General of the OECD and the Director-General of FAO. The views expressed and conclusions reached in this report do not necessarily correspond to those of the governments of OECD member countries, or the governments of the FAO member countries. The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

ISBN 978-92-64-08375-2 (print)

ISBN 978-92-64-08376-9 (PDF)

Also available in French: *Perspectives agricoles de l'OCDE et de la FAO 2010-2019*

Photo credits: Cover © iStockphoto.com/Robert Churchill.

Corrigenda to OECD publications may be found on line at: www.oecd.org/publishing/corrigenda.

© OECD/FAO 2010

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to rights@oecd.org. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at info@copyright.com or the Centre français d'exploitation du droit de copie (CFC) at contact@cfcopies.com.

Foreword

The annual Agricultural Outlook is prepared jointly by the Organisation for Economic Co-operation and Development (OECD) and the Food and Agriculture Organization (FAO) of the United Nations. The projections and assessments provided in this report are the result of close co-operation with national experts in OECD countries, but also in several countries that are not members of the OECD, reflecting the combined knowledge and expertise of this wide group of collaborators. A jointly developed modelling system, based on the OECD's Aglink and FAO's Cosimo models, facilitates consistency in the projections. The fully documented Outlook Database, including historical data and projections, is available through the OECD-FAO joint website www.agri-outlook.org.

This report covers biofuels, cereals, oilseeds, sugar, meats, and dairy products over the 2010-19 period. The market assessments are based on a set of underlying assumptions regarding macroeconomic factors, agricultural and trade policies and production technologies. They also assume normal average weather conditions and long-term productivity trends. The Outlook's relatively stable price projections are highly conditional on these assumptions, and on the continuation of domestic policies and policy settings. For instance, an agreement of the Doha round of multilateral trade negotiations would likely have a considerable impact on the prospects for agricultural markets as contained in this assessment. Nevertheless, the Agricultural Outlook presents a consistent view on the evolution of global agricultural markets over the next decade and provides a baseline for further analysis of alternative economic or policy assumptions.

Agriculture has experienced significant shocks in recent years due to high fluctuations in oil prices, commodity price spikes, food security fears and resultant trade restrictions, not to mention the most serious global economic recession since the 1930s. After a run up in prices, a rapid fall followed as supply and demand reacted to high prices and the beginning of the global economic crisis. In 2010, the economic turmoil eased and commodity prices increased from 2009 levels. Looking forward, the macroeconomic assumptions conditioning the commodity projections are more positive as compared to last year's report. The anticipated return to global economic growth, rising population, the emerging biofuel markets, but also a higher cost structure are expected to underpin the international commodity markets and prices over the Outlook period. Developing countries are expected to be the driving force behind the expected growth in agricultural production, consumption and trade. However, the projections for the Least Developed Countries imply increased reliance on international markets, and growing exposure to commodity price changes and fluctuations in import bills.

As high price volatility threatens farm viability, food security and needed investment, the fluctuation of commodity prices is an issue for many governments concerned about its impact on domestic producers and consumers. A chapter of this report discusses the issue of price volatility and price transmission from the international to domestic markets, and analyses certain policy options that address volatility at both the domestic and international levels. The report also identifies other trends and issues that will have an important impact on the agricultural sector and commodity markets in the future, such as developments in the fisheries sector, food security concerns, climate change and future policy directions as discussed at the OECD Agriculture Ministerial Meeting held in Paris in February 2010.

Acknowledgements

This *Agricultural Outlook* is jointly prepared by the OECD and FAO Secretariats.

At the OECD, the Outlook report was authored by the Agro-Food Trade and Markets Division of the Trade and Agriculture Directorate: Wayne Jones (Division Head), Pavel Vavra (Outlook and baseline co-ordinator), Martin von Lampe (baseline co-ordinator), Alexis Fournier, Linda Fulponi, Céline Giner, Pete Liapis, Garry Smith (Overview chapter), Gregoire Tallard and Shinichi Taya. Additional Directorate contributions were provided by Hsin Huang (Agricultural Policies and Environment Division) and Carl-Christian Schmidt (Fisheries Policies Division). The OECD Secretariat is grateful for the contributions provided by Hubertus Gay of the European Commission JRC-IPTS and Scott Pellow of the Agriculture and Agri-Food Canada. Research and statistical assistance were provided by Armelle Elasri, Alexis Fournier, Gaelle Gouarin and Claude Nenert. Meetings organisation and document preparation was provided by Christine Cameron. Technical assistance in the preparation of the Outlook database was provided by Frano Ilicic. Many other colleagues in the OECD Secretariat and member country delegations furnished useful comments on earlier drafts of the report.

At the FAO, the team of economists and commodity officers from the Trade and Markets Division contributing to this edition consisted of Alexander Sarris (Division Head), Merritt Cluff (Team Leader), Holger Matthey (baseline co-ordinator), Abdolreza Abbasssian, El Mamoun Amrouk, Pedro Arias, Concepcion Calpe, Joshua Dewbre, Cheng Fang, Adam Prakash, Matthieu Stigler, Peter Thoenes, and Doussou Traoré. Hansdeep Khaira contributed from the Statistics Division. Stefania Vannuccini and Audun Lem contributed from the Fisheries and Aquaculture Department. Research assistance and database preparation was provided by Claudio Cerquilini, Berardina Forzinetti, John Heine, Marco Milo, and Barbara Senfter. Secretarial services were provided by Rita Ashton and Valentina Banti.

Finally, the assistance and cooperation of the Executive Director, Peter Baron, and staff of the International Sugar Organisation (ISO) in London, in reviewing the country level projections and providing information on the market outlook for sugar and key emerging issues is gratefully acknowledged.

Table of Contents

Acronyms and Abbreviations	11
Outlook in Brief	14
Chapter 1. Overview	17
Introduction	18
The setting	18
World markets at a glance	21
Main trends in individual commodity markets	30
Main developments in food prices	40
Issues and uncertainties	44
Notes	52
Chapter 2. Price Volatility and Price Transmission	53
The global price spike of 2007/08	54
Volatility and uncertainty in agricultural markets	56
The transmission of international prices to domestic markets	59
Price volatility: What are the policy options?	64
Notes	69
References	70
Chapter 3. Macroeconomic and Policy Assumptions	73
Current situation	74
Projection highlights	75
Macroeconomic developments	75
Population growth	80
Agriculture policy developments	80
Risks and uncertainties	81
Notes	82
Chapter 4. Biofuels	83
Market situation	84
Projection highlights	84
Market trends and prospects	86
Key issues and uncertainties	95
Notes	97
References	98
Chapter 5. Cereals	99
Market situation	100

Projection highlights	100
Market trends and prospects: Wheat and coarse grains	101
Market trends and prospects: Rice	110
Key issues and uncertainties	113
Reference.....	115
Chapter 6. Oilseeds and Oilseed Products	117
Market situation.....	118
Projection highlights	119
Market trends and prospects	121
Key issues and uncertainties	128
Chapter 7. Sugar	131
Market situation.....	132
Projection highlights	133
Market trends and prospects	136
Key issues and uncertainties	143
Chapter 8. Meat	147
Market situation.....	148
Projection highlights	149
Market trends and prospects	150
Key issues and uncertainties	157
Chapter 9. Dairy	159
Market situation.....	160
Projection highlights	160
Market trends and prospects	162
Key issues and uncertainties	169
Methodology	171
The generation of the OECD-FAO Agricultural Outlook	171
Sources and assumptions for the macroeconomic projections	172
The representation of production costs in Aglink-Cosimo	173
Annex A. Statistical Tables	177
Annex B. Information on Food Price Changes	236
Glossary of Terms	238
Tables	
1.1. Production and consumption annual growth rates (least squares), 2010-19.....	24
2.1. Coefficients of variation of commodity prices in selected countries: 2006-10 ...	57
2.2. Historic annualised volatility of international grain prices	58
3.1. Slowdown in population growth	80
8.1. Russian Federation: Meat TRQs for 2002-09, kt, <i>ad valorem</i>	152
8.2. Russian Federation: Meat TRQs for 2006-09, kt, <i>ad valorem</i>	152
8.3. Russian Federation: Meat TRQs for the period 2010-12.....	153
8.4. Mature developed countries meat market record little per capita consumption growth	155

A.1. Economic assumptions	178
A.2. World prices	180
A.3. World trade projections	182
A.4. Main policy assumptions for cereal markets	184
A.5. World cereal projections	186
A.6. Wheat projections	187
A.7. Coarse grain projections	189
A.8. Rice projections	191
A.9. Main policy assumptions for oilseed markets	193
A.10. World oilseed projections	195
A.11. Oilseed projections	196
A.12. Protein meal projections	198
A.13. Vegetable oil projections	200
A.14. Main policy assumptions for sugar markets	202
A.15. World sugar projections (in raw sugar equivalent)	203
A.16. World sugar projections (in raw sugar equivalent)	204
A.17. Main policy assumptions for meat markets	206
A.18. World meat projections	208
A.19. Beef and veal projections	210
A.20. Pig meat projections	212
A.21. Poultry meat projections	214
A.22. Sheep meat projections	216
A.23. Main policy assumptions for dairy markets	218
A.24. World dairy projections (butter and cheese)	220
A.25. World dairy projections (powders and casein)	221
A.26. Butter projections	222
A.27. Cheese projections	224
A.28. Skim milk powder projections	226
A.29. Whole milk powder projections	228
A.30. Milk projections	230
A.31. Whey powder and casein projections	231
A.32. Main policy assumptions for biofuels markets	232
A.33. Biofuels projections: Ethanol	234
A.34. Biofuels projections: Biodiesel	235
B.1. Information on food price changes	236

Figures

1.1. Macroeconomic trends	20
1.2. Nominal commodity prices to remain above average levels of the previous decade but lower than 2007/08	22
1.3. Most commodity prices in real terms to remain above the last decade's levels	22
1.4. Change in production of crop and livestock products (per cent change 2019 compared to 2007-09)	25
1.5. Net agricultural production for selected countries (index 2004-06 = 100)	26
1.6. Net agricultural production for regions on a per capita basis (index 2004-06 = 100)	26

1.7. Net agricultural production for world and economic groups (index 2004-06 = 100)	27
1.8. Net agricultural production for economic groups (percentage change)	27
1.9. Change in consumption of crop and livestock products (per cent change 2019 compared to 2007-09)	29
1.10. Exports of OECD and non-OECD countries to 2019 (per cent change)	30
1.11. Imports of OECD and non-OECD countries to 2019 (per cent change)	31
1.12. The Outlook for world crop prices to 2019	32
1.13. The Outlook for world livestock prices to 2019	33
1.14. Percentage change in the food prices: Selected OECD countries, 2006-09	41
1.15. Percentage change in the food prices: Selected non-OECD countries, 2006-09	41
1.16. Percentage change in the food prices: Selected African countries, 2006-09	42
1.17. Contribution of food price changes to inflation: Selected OECD countries	42
1.18. Contribution of the food price changes to inflation: Selected non-OECD countries	43
1.19. Contribution of the food price changes to inflation: Selected African countries	43
1.20. World fish utilisation and supply	46
1.21. World production (quantity)	46
2.1. Co-movements of commodity prices 2000-10	55
2.2. Co-movements of agricultural food crop prices	56
2.3. Nominal annualised historic volatility: Cereal commodities	58
2.4. International and wholesale prices of rice	60
2.5. International and wholesale prices of wheat	61
2.6. International and wholesale prices of maize	61
3.1. Income growth resumes in OECD area	76
3.2. Stronger growth prospects in non-OECD area	77
3.3. Inflation expected to remain under control	78
3.4. US dollar appreciated against most currencies	79
3.5. Oil price resumes upward trend	79
4.1. Global ethanol production to grow by more than 110%	84
4.2. Global biodiesel markets to continue to expand	85
4.3. Ethanol markets dominated by the US, Brazil and the EU	85
4.4. The European Union to dominate biodiesel supply and use	86
4.5. Ethanol to be produced mainly from coarse grains and sugarcane	87
4.6. Vegetable oil is the major feedstock to biodiesel production	88
4.7. Biofuel use represents an important share of global cereal, sugar and vegetable oil production	88
4.8. US ethanol market to expand because of RFS2	89
4.9. EU ethanol production and use to develop	90
4.10. The flexi-fuel industry to drive increasing ethanol use in Brazil	91
4.11. EU biodiesel imports requirements to stabilise after 2016	92
4.12. US biodiesel use to increase up to 2012 to meet RFS2 mandate	93
4.13. Argentina to export most of its biodiesel production	94
5.1. Wheat production and price	102
5.2. Coarse grains production and price	103

5.3. Wheat consumption in OECD and developing countries	104
5.4. Coarse grains consumption in OECD and developing countries	105
5.5. Wheat stocks and real price development	106
5.6. Coarse grains stocks and real price development	107
5.7. Main wheat traders	108
5.8. Main coarse grain traders	109
5.9. Rice production and price	111
5.10. Main rice traders	112
6.1. Oilseeds and oilseed products prices to remain well above long term levels	119
6.2. Oilseed production to expand	120
6.3. Food use to drive vegetable oil consumption in non-OECD economies, biofuel use to drive consumption in OECD economies	120
6.4. Vegetable oil exports to be concentrated	121
6.5. Potential for oilseed area expansion is limited	122
6.6. Vegetable oil use for biodiesel production to increase because of mandates	125
7.1. Consecutive sugar deficits set stage for price surge in 2009	132
7.2. Nominal sugar prices remain variable and average higher than the last decade	134
7.3. World prices to trend lower in real terms	134
7.4. The global stocks-to-use ratio to rise in near term and then decline	135
7.5. The non-OECD countries are the leading sugar producers and consumers	135
7.6. Sugar exports remain highly concentrated and dominated by Brazil	136
7.7. Imports are more diversified and lead by India, European Union and United States	136
7.8. Larger sugarcane production accounts for most of the higher sugar output	138
7.9. Both sugar and ethanol production to increase in Brazil	140
7.10. EU sugar reforms lead to lower quota production, fixed exports and rising imports	141
7.11. Rising sugar consumption in the United States by import from Mexico	141
7.12. Russian sugar production to expand and displace imports	142
7.13. India's production cycle influences world sugar prices	144
8.1. World meat prices in nominal terms remain above historical levels	149
8.2. Meat production and consumption growth dominated by non-OECD region	150
8.3. World consumer preference for poultry meat	150
8.4. Meat exports growth is predominately coming from non-OECD region	156
8.5. Biggest net meat imports growth remains in developed countries	157
9.1. World dairy prices rising in nominal terms	161
9.2. Declining trend in prices in real terms is expected to abate	161
9.3. Global production of WMP growing rapidly	162
9.4. Consumption affected by income and product attributes	162
9.5. Trade increases mainly for cheese and WMP	163
9.6. Russian Federation a major importer of butter and cheese	163
9.7. Large differences in milk production growth	164
9.8. Impact of the 10% stronger CNY (Yuan) on the WMP imports to China	166
9.9. Significant growth of cheese consumption in developing regions, albeit from low base	168

This book has...



StatLinks 

**A service that delivers Excel® files
from the printed page!**

Look for the *StatLinks* at the bottom right-hand corner of the tables or graphs in this book. To download the matching Excel® spreadsheet, just type the link into your Internet browser, starting with the <http://dx.doi.org> prefix.

If you're reading the PDF e-book edition, and your PC is connected to the Internet, simply click on the link. You'll find *StatLinks* appearing in more OECD books.

Acronyms and Abbreviations

ACP	African, Caribbean and Pacific countries
AI	Avian influenza
AMAD	Agricultural Market Access Database
ARS	Argentinean peso
AUD	Australian dollar
AUSFTA	Australia and United States Free Trade Agreement
bn	Billion
BNGY	Billion gallons per year
bnl	Billion litres
BNLY	Billion litres per year
BRIIC	Emerging economies of Brazil, the Russian Federation, India, Indonesia and China
BRL	Real (Brazil)
BSE	Bovine Spongiform Encephalopathy
bt	Billion tonnes
BTL	Biomass to liquid
CAD	Canadian dollar
CAFTA	Central American Free Trade Agreement
CAP	Common Agricultural Policy (EU)
CCC	Commodity Credit Corporation
CET	Common External Tariff
CIS	Commonwealth of Independent States
CMO	Common Market Organisation for sugar (EU)
CNY	Yuan (China)
COOL	Country of Origin Labelling
CO₂	Carbon dioxide
CPI	Consumer Price Index
CRP	Conservation Reserve Program of the United States
cts/lb	Cents per pound
cwe	Carcass weight equivalent
DBES	Date-based export scheme
DDA	Doha Development Agenda
DDG	Dried Distiller's Grains
dw	Dressed weight
EBA	Everything-But-Arms Initiative (EU)
ECOWAP	West Africa Regional Agricultural Policy
ECOWAS	Economic Community of West African States
EISA Act	Energy Independence and Security Act of 2007 (US)
EPAs	Economic Partnership Agreements (between EU and ACP countries)

ERS	Economic Research Service of the US Department for Agriculture
est.	Estimate
E85	Blends of biofuel in transport fuel that represent 85% of the fuel volume
EU	European Union
EU15	Fifteen member states of the European Union
EU10	Ten new member states of the European Union from May 2004
EU27	Twenty seven member states of the European Union (including Bulgaria and Romania from 2007)
EUR	Euro (Europe)
FAO	Food and Agriculture Organization of the United Nations
FCE Act	Food, Conservation and Energy Act of 2008 US Farm Bill
FMD	Foot and Mouth Disease
f.o.b.	Free on board (export price)
FR	Federal Reserve (US central bank)
FSRI ACT	Farm Security and Rural Investment Act (US) of 2002
FTA	Free Trade Agreement
G10	Group of ten countries (see glossary)
G20	Group of twenty developing countries (see glossary)
GAL	Gallons
GDP	Gross domestic product
GDPD	Gross domestic product deflator
GHG	Green House Gases
GLB	Gross land balances
GMO	Genetically modified organism
ha	Hectares
HFCS	High fructose corn syrup
hl	Hectolitre
HS	Harmonised commodity description and coding system
IEA	International Energy Agency
iLUC	Indirect land-use change
INR	Indian rupees
IPCC	Intergovernmental Panel on Climate Change
kg	Kilogrammes
KRW	Korean won
kt	Thousand tonnes
La Niña	Climatic condition associated with temperature of major sea currents
LAC	Latin America and the Caribbean
lb	Pound
LDCs	Least Developed Countries
LICONSA	Leche Industrializada
lw	Live weight
MCI	Multiple cropping index
MERCOSUR	Common Market of the South America
MFN	Most Favoured Nation
Mha	Million hectares
Mn	Million
MPS	Market Price Support
Mt	Million tonnes

MTBE	Methyl tertiary butyl ether
MXN	Mexican peso
NAFTA	North American Free Trade Agreement
NLB	Net land balances
NZD	New Zealand dollar
OECD	Organisation for Economic Co-operation and Development
OIE	World Organisation for Animal Health
p.a.	<i>Per annum</i>
PCE	Private Consumption Expenditure
PIK	Payment in kind programme (US)
PPP	Purchasing power parity
PROCAMPO	Mexican Farmers Direct Support Programme
PRRS	Porcine reproductive and respiratory syndrome
PSE	Producer Support Estimate
pw	Product weight
R&D	Research and Development
RED	Renewable Energy Directive in the EU
RFS	Renewable Fuels Standard in the US, which is part of the Energy Policy Act of 2005
rse	Raw sugar equivalent
rtc	Ready to cook
RUB	Russian ruble
rwt	Retail weight
SFP	Single Farm Payment scheme (EU)
SMP	Skim milk powder
SPS	Sanitary and phytosanitary measures
STRV	Short tons raw value
t	Tonnes
t/ha	Tonnes/hectare
TFP	Total factor productivity
THB	Thai baht
TRQ	Tariff rate quota
UHT	Ultra-heat treatment is the partial sterilisation of food by heating it for a short time
UK	United Kingdom
UN	The United Nations
UNCTAD	United Nations Conference on Trade and Development
URAA	Uruguay Round Agreement on Agriculture
US	United States
USD	United States dollar
USDA	United States Department of Agriculture
v-CJD	New Creutzfeld-Jakob-Disease
VAT	Value added tax
WAEMU	West African Economic and Monetary Union
WMP	Whole milk powder
wse	White sugar equivalent
WTO	World Trade Organisation
ZAR	South African rand

Outlook in Brief

Agriculture has experienced a number of severe shocks in recent years with record high oil prices, commodity price spikes, food security fears and resultant trade restrictions, not to mention the most serious global economic recession since the 1930s. The greatest impact has been on the poor, especially in developing countries, with the world's hungry now estimated at over 1 billion people. Agriculture has shown remarkable resilience, particularly in the OECD area, with strong supply response to high prices and with continuing, albeit dampened, demand growth during the crisis. In 2010, a degree of normalcy has returned to many markets with production closer to historical levels and demand recovering. Still, many governments remain concerned about the potential for a repetition of significant shocks to such key factors as energy prices, exchange rates, and/or the macroeconomic performance of key countries and regions, and about the consequences that such shocks have on market volatility.

- The macroeconomic environment underlying the commodity projections is more positive than in the 2009 Outlook. It reflects the start of global economic recovery in late 2009 and a slow transition towards higher sustainable and non inflationary growth beyond the near term. A two-speed recovery appears to be underway characterised by weak and hesitant growth with high unemployment in many OECD countries and by stronger growth and faster recovery in the large developing countries which is slowly spreading to the rest of the developing world and helping to fuel world income growth. High energy prices have returned and are assumed to remain a feature of the period covered by this Outlook. A further increase in oil prices could be expected to increase input and production costs, having an impact on crop supplies, prices and trade flows, and reinforce feedstock demand for biofuels.
- Underpinning agricultural prices is increasingly a higher cost structure particularly in regions where energy inputs are used intensively. Global agricultural production is anticipated to grow more slowly in the next decade than in the past one, but in the absence of unexpected shocks, growth remains on track with estimated longer term requirements of a 70% increase in global food production by 2050. On a per capita basis, production growth in least developed countries is struggling to keep up with rapid population growth. Global sectoral growth will be led by the regions of Latin America and Eastern Europe and, to a lesser extent, by certain countries in Asia.
- Average crop prices over the next ten years for the commodities covered in this Outlook are projected to be above the levels of the decade prior to the 2007/08 peaks, in both nominal and real terms (adjusted for inflation). Average wheat and coarse grain prices are projected to be nearly 15-40% higher in real terms relative to 1997-2006, while for vegetable oils real prices are expected to be more than 40% higher. World sugar prices to 2019 will also be above the average of the previous decade but well below the 29-year highs experienced at the end of 2009.
- For livestock products, average meat prices in real terms, other than for pig meat, are expected to surpass the 1997-2006 average over the coming decade initially due to lower supplies, higher feed costs and rising demand. Pig meat real prices should stay relatively subdued due to an anticipated increase in supply from Brazil and China. Economic recovery will strengthen consumption of meats relative to cereals, particularly in developing countries, with most growth favouring cheaper meat – poultry and pig meat – relative to beef. Average dairy prices in real terms are expected to be 16-45% higher in 2010-19 relative to 1997-2006, with butter prices showing most gains, supported by higher energy and vegetable oil prices.
- Biofuel markets depend heavily on government incentives and mandates, but prospects remain uncertain, due to unpredictable factors such as the future trend in crude oil prices, changes in policy interventions and developments in second-generation technologies. Continued expansion of biofuel production to meet mandated use will create additional demand for wheat, coarse grains, vegetable oils and sugar used as feedstocks.

- Developing countries will provide the main source of growth for world agricultural production, consumption and trade. Demand from developing countries is driven by rising per capita incomes and urbanisation, reinforced by population growth, which remains nearly twice that of the OECD area. As incomes rise, diets are expected to slowly diversify away from staple foods towards increased meats and processed foods that will favour livestock and dairy products. Also, with increasing affluence and an expanding middle class, food consumption in these countries should become less responsive to price and income changes, as is currently the case in OECD countries. This implies that larger changes in price and incomes will be required for consumption to adjust to any unforeseen shocks.
- For virtually all commodities the projected growth in imports and exports of developing countries exceeds that of the OECD area. Only exports of protein meals increase faster in the OECD area by 2019. The higher share of developing countries in trade is reflected in expanding South-South trade in addition to North-South trade. Nevertheless, OECD countries will continue to dominate exports in 2019 (shares in brackets) of wheat (52%), coarse grains (59%), pig meat (80%), butter (80%), cheese (63%), whole milk powder (66%) and skim milk powder (74%). Developing countries will hold dominate shares in 2019 for: rice (88% share), oilseeds (56%), protein meals (80%), vegetable oils (91%), sugar (90%), beef (57%) and poultry (63%).
- Food prices remained high or “sticky” in many countries for an extended period after world primary commodity prices fell following the price surge of 2007/08. In 2009, the contribution of food price increases to inflation fell considerably from 2008, particularly in OECD countries, but still remains significant in some developing and emerging countries.
- Since the price spike of 2006-08, short term price volatility has increased considerably. However, the evidence is inconclusive as to whether and how price volatility has changed over the long term for the major food crops examined in this Outlook. What is clear is that the extent to which world prices are transmitted to domestic markets varies markedly by country and depends on the level of market integration. The transmission of international prices to domestic markets can be impeded by border measures, domestic price supports and infrastructure weaknesses.
- The Outlook’s relatively stable price projections result from the assumption of “normal” conditions. Uncertainties around weather, macroeconomic factors, policy interventions, and especially energy prices suggest that commodity prices will remain unpredictable. Many governments are concerned about price volatility even in the very short term, because it threatens both farm viability (low prices) and food security (high prices). High uncertainty also affects investment decisions. There are a number of policy options to consider at both the domestic and international levels.
- Governments can underpin farmers’ risk management strategies by focusing on those unpredictable and unavoidable risks that may be rare, but have large consequences, and which farmers cannot manage themselves. Governments can also empower farmers to manage their own business risk and can provide good risk governance, including by creating effective markets and by not creating incentives for rent seeking in the form of *ad hoc* support and assistance.
- National and local emergency stockholding of key food security commodities, for food emergencies, particularly for low-income food importing countries, may increase confidence in the access to food in times of crisis and help stabilise local markets. Increased research, capacity building, and sharing of best practices to improve the functioning of emergency stock schemes are required. Whatever actions governments consider taking, it is always important to keep in mind the full set of policy measures, risks and possible responses for the targeted population.

- Market price support for agricultural commodities is a policy option that has clearly shown in many countries and over several decades to be inefficient and its use has declined. Price support masks market signals to producers, destabilises world markets and acts as a regressive tax on the poor by raising prices to consumers. Price support also skews support towards large producers and, encourages intensification with potentially adverse effects on the environment, and much of the benefit is either capitalised into fixed asset values (such as land or quotas), thereby raising production costs over time, or is transferred outside the farm. Such measures should be assessed against other less distorting alternatives, such as targeted direct income supports, investments in productivity enhancements, etc.
- At the international level, the unco-ordinated policy actions of governments during the 2006-08 price spikes exacerbated volatility and impeded access to markets. There is a need for greater assurance of unimpeded access to global supplies and improve confidence in market functioning. While experience with international efforts to manage stocks has not been positive, options to reduce the unpredictability of food import bills should be explored.
- Organised commodity exchanges are useful and time-tested price discovery and hedging institutions, if they are regulated properly and attract sufficient volume to avoid monopolistic practices. They have facilitated commodity marketing in many developed countries and their expansion in developing countries is a welcome institutional development and a sign of market deepening.