

# Medium-term prospects for major agricultural commodities 2017-2026

## Japan

### Highlights

- High domestic demand is projected to lead to strong production growth of ethanol, which will largely be met through increased imports of biofuels.
- The Japanese diet is characterised by a high consumption of fish. However, in the coming decade, dairy will be the fastest growing source of calories.
- The combination of lower per capita consumption and declining number of consumers will result in significantly lower demand for fish and rice.
- This same combination is also projected to result in a decline of several agricultural commodity imports, particularly grains. Japan will nevertheless remain a major agro-food net importer.

### Overview

The *OECD-FAO Agricultural Outlook* foresees that overall growth in production will be moderate, perhaps even decrease in view of the ageing and declining Japanese population. The country's production levels are sustained by a relatively high growth of total factor productivity (TFP). Food demand will decrease, in particular for rice and protein from fish origins. It is expected that the share of dairy, meat, sugar and vegetable oils in the national diet will increase. Japan will remain the most important importer of several agricultural commodities, although the shares of these imports will decline. The *Outlook* assumes the current policy framework will not change over the next decade.

#### Macroeconomic assumptions

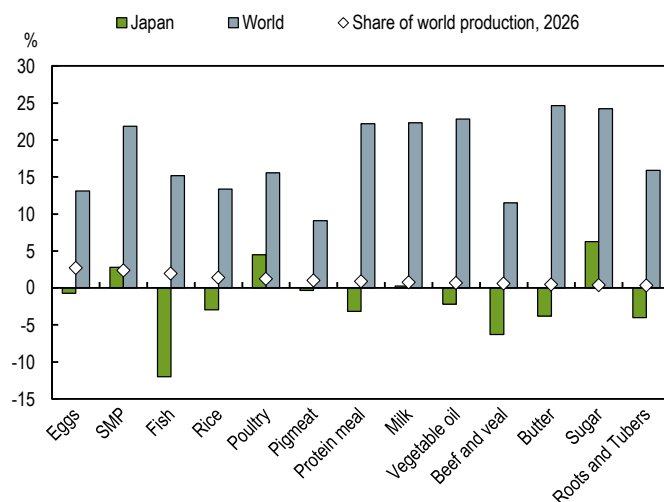
- Population is projected to decrease from 126 million in 2014-16 to 122 million in 2026, or -0.3% per year
- Annual inflation is expected to average 1.4% in the coming decade.
- The Japanese yen is projected to appreciate by 7% in nominal terms compared to the USD to JPY/USD 100.6 in 2026.
- GDP is projected to increase by 0.3% per year.

#### Policy assumptions

- Tariffs are assumed to remain at their 2016 levels until 2026.

### Production

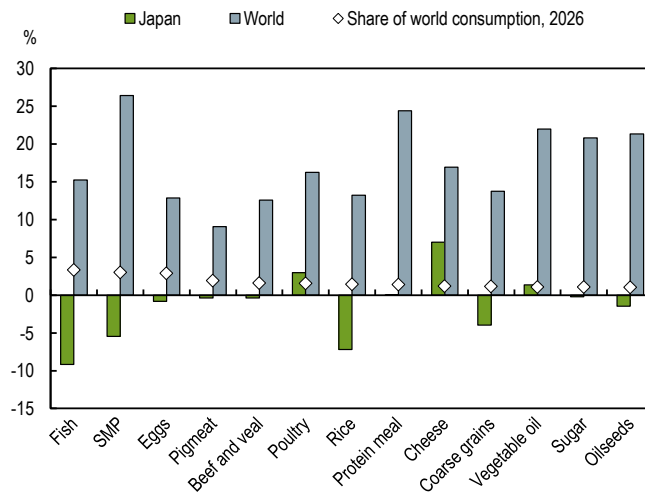
Production: Percentage change 2026 compared to 2014-16 average



- **Milk and skim milk powder, poultry and sugar** are projected to record a positive growth rate over the projection period, with an increase of 0.3%, 2.8%, 4.5%, and 6.6% respectively. These increases remain below projected global trends.
- A negative growth in **fish** production is projected (-12%), compared to the projected global growth rate of 15%.
- Production of **pigmeat** and **beef and veal** is projected to decline, by -0.3% and -6.3% respectively. Production of other dairy products will remain modest or negative, e.g. **butter** production is projected to decrease by 4%.
- Negative growth is projected in cereal production, with a projected growth rate for **rice** of -3.0%. The expected decrease in meat production will lower the production of **protein meals** used for animal feed by -3%.

## Consumption

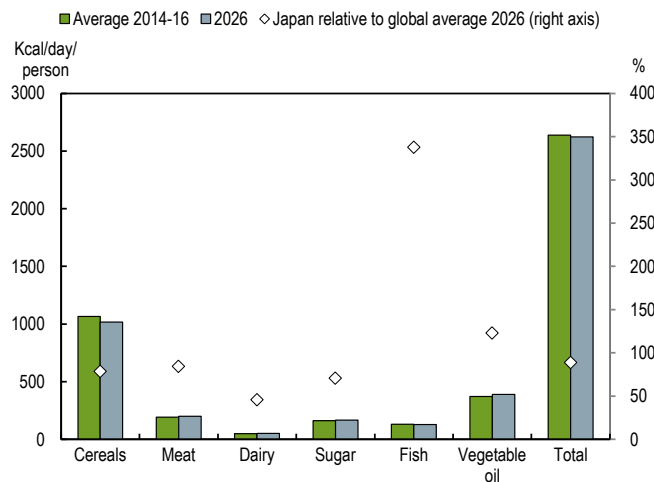
Consumption: Percentage change 2026 compared to 2014-16 average



- In line with domestic production, the consumption of **fish** is projected to decrease by -9%. Japan will continue to account, however, for a large share (19%) of the OECD area consumption of fish.
- Consumption of **cheese** is projected to increase by 7%, and that of **poultry** by 3%.
- A decrease of 1% or less is projected in the consumption of **beef and veal, eggs, pigmeat, and sugar**.
- A stronger decrease is expected in the consumption of **coarse grains** (-4%), of which **rice** (-7%) is the main component. The decrease for **oilseeds** will be modest at -1.5%. A small increase in the growth rate is expected for **vegetable oil** and **protein meal** consumption, the two by-products of crushing oilseeds.

## Caloric and protein intake

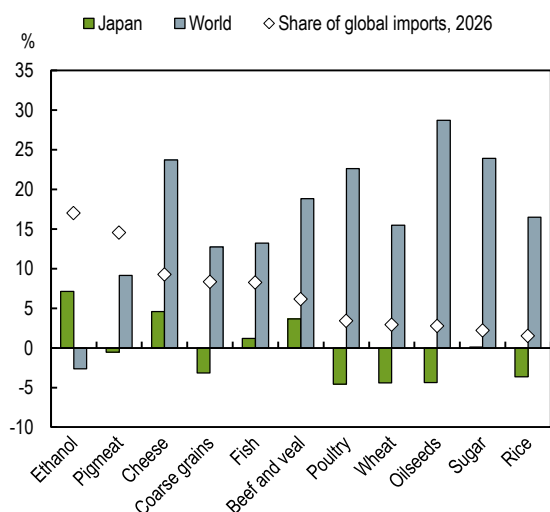
Projections of caloric intake per capita by commodity, 2026 compared to 2014-16 average



- Overall **calorie intake** is expected to decrease marginally to 2 622 kcal/day/person in 2026, a level below the projected global average.
- **Cereals** dominate as a source of calories, with a projected contribution of 1 017 kcal in 2026, 4% lower than the current level.
- Calorie intake through **meat** consumption is projected to increase by 4%, about 15% below the global average, in 2026. The contribution of **fish** will decrease slightly (-3%), but remain more than three times above the global average in 2026.
- The fastest growing main source of calories is **dairy**, which will increase by 6%. The growth rate in calorie intake from dairy is projected to be 15% above the global average, but only half the projected global level for 2026.
- Protein intake (not shown) is expected to remain constant at 95 grams/day/person, in line with the expected global average for 2026. As for calories, protein intake will continue to be characterised by a high contribution from **fish, vegetable oil, and meat**.

## Trade

### Imports: Percentage change 2026 compared to 2014-16 average



- Agricultural imports comprise a large share of domestic consumption. Only imports of ethanol, however, will outpace global trade growth rate.
- The development of ethanol, imported mostly from Brazil, as a source of energy is one measure of Japan's commitment to reduce the country's greenhouse gas (GHG) emissions.
- Positive import growth will be recorded for **cheese, fish, beef and veal** and **sugar** spurred by domestic demand.
- Imports of other major agricultural products are projected to decrease by 2026 as compared to the 2014-16 base period as consumption is expected to decrease in parallel with Japan's ageing population.

## Policy and market uncertainties

- Japan will phase out the administrative allocation of rice production by the 2018 crop year. This is an important step which gives farmers more freedom to respond to market signals, a development which will be reflected through improved trade balances over the outlook period.
- Promoting agro-food exports will continue to be an important policy target. Various measures will continue to be undertaken in this regard, including ensuring that domestic production standards are in harmony with international standards, that intellectual property rights are protected, as well as increased promotional activities of Japanese cuisine and food culture.
- It is expected that the government will seek to expand the number of products that are exported to include, for example, poultry, rice and fish. Any reversal or delay in the implementation of reforms, however, would constrain such a development.

## Further reading

OECD/FAO (2017), *OECD-FAO Agricultural Outlook 2017-2026*, OECD Publishing, Paris.

[http://dx.doi.org/10.1787/agr\\_outlook-2017-en](http://dx.doi.org/10.1787/agr_outlook-2017-en).

OECD-FAO Agricultural Outlook: [www.agri-outlook.org](http://www.agri-outlook.org)

Methodology of the Aglink-Cosimo Model: [www.agri-outlook.org/abouttheoutlook/Aglink-Cosimo-model-documentation-2015.pdf](http://www.agri-outlook.org/abouttheoutlook/Aglink-Cosimo-model-documentation-2015.pdf)

Policy information for these country notes is drawn from the *OECD Agricultural Policy Monitoring and Evaluation*: <http://oe.cd/pse>

For more information about the *Agricultural Outlook*, contact us at [TAD.contact@oecd.org](mailto:TAD.contact@oecd.org).

## Japan: Selected commodity projections

			Average		Growth <sup>2</sup>		
			2014-16est.	2021	2026	2007-16	2017-26
<b>Maize</b>	Area harvested	kha	0	0	0	0.50	-0.37
	Production	kt	0	0	0	0.92	-0.05
	Consumption	kt	14 843	14 783	14 715	-156	-0.15
	Per capita consumption <sup>1</sup>	kg/cap	7.5	6.8	6.1	-4.25	-2.03
	Exports	kt	0	0	0	..	..
	Imports	kt	14 942	14 787	14 714	-140	-0.11
<b>Rice</b>	Area harvested	kha	1520	1440	1402	-112	-0.52
	Production	kt	7 862	7 742	7 631	0.01	-0.11
	Consumption	kt	8 667	8 372	8 043	0.00	-0.78
	Per capita consumption	kg/cap	55.3	53.2	51.5	-116	-0.67
	Exports	kt	101	123	134	-5.45	2.40
	Imports	kt	780	762	752	0.03	-0.42
<b>Protein meals</b>	Production	kt	3 401	3 370	3 293	-187	-0.49
	Consumption	kt	5 352	5 459	5 352	-120	-0.53
	Exports	kt	1	0	0	-47.25	0.00
	Imports	kt	1951	2 090	2 059	0.27	-0.54
<b>Vegetable oils</b>	Production	kt	1521	1506	1487	-0.01	-0.26
	Consumption	kt	2 311	2 332	2 342	0.14	0.06
	Per capita consumption <sup>1</sup>	kg/cap	18.3	18.7	19.1	0.22	0.40
	Exports	kt	3	3	3	99.59	0.00
	Imports	kt	800	829	858	0.98	0.68
<b>Sugar</b>	Production	kt	695	720	739	-2.57	0.50
	Consumption	kt	2 123	2 127	2 119	-0.22	-0.03
	Per capita consumption <sup>1</sup>	kg	16.8	17.1	17.3	-0.14	0.30
	Exports	kt	4	5	5	15.43	0.00
	Imports	kt	1388	1416	1390	0.58	-0.31
<b>Beef and veal</b>	Cow inventory	000 hd	2 488	2 224	2 115	-2.21	-1.06
	Production	kt (cwe)	483	457	452	-0.95	-0.24
	Consumption	kt (cwe)	1201	1193	1196	0.23	0.02
	Per capita consumption <sup>1</sup>	kg/cap	6.6	6.7	6.8	0.31	0.36
	Exports	kt (cwe)	2	3	3	19.05	0.00
	Imports	kt (cwe)	721	739	747	1.00	0.22
<b>Pigmeat</b>	Production	kt (cwe)	1263	1263	1259	0.03	-0.06
	Consumption	kt (cwe)	2 447	2 461	2 438	0.51	-0.24
	Per capita consumption <sup>1</sup>	kg/cap	15.1	15.4	15.5	0.60	0.10
	Exports	kt (cwe)	1	1	1	-8.21	0.00
	Imports	kt (cwe)	1187	1198	1180	1.06	-0.42
<b>Poultry</b>	Production	kt (rtc)	1515	1554	1583	1.39	0.45
	Consumption	kt (rtc)	1994	2 061	2 053	1.93	-0.03
	Per capita consumption <sup>1</sup>	kg/cap	13.9	14.6	14.8	2.01	0.31
	Exports	kt (rtc)	10	11	13	4.77	3.46
	Imports	kt (rtc)	506	519	483	4.08	-1.57
<b>Milk</b>	Cow inventory	000 hd	871	870	868	-1.65	-0.04
	Production	kt	7 369	7 383	7 389	-1.03	0.00
<b>Cheese</b>	Production	kt	45	46	54	0.52	3.12
	Consumption	kt	292	307	312	2.65	0.31
	Per capita consumption <sup>1</sup>	kg/cap	2.3	2.5	2.6	2.73	0.64
	Exports	kt	0	0	0	..	..
	Imports	kt	246	261	258	3.08	-0.20
<b>Skim milk powder</b>	Production	kt	125	127	129	-3.71	0.24
	Consumption	kt	173	173	164	-2.29	-1.27
	Per capita consumption <sup>1</sup>	kg/cap	12	12	12	-2.42	-0.95
	Exports	kt	0	0	0	..	..
	Imports	kt	51	46	35	5.97	-4.78
<b>Fish and seafood</b>	Production	kt	4 200	3 884	3 697	-2.56	-1.08
	Food consumption	kt	6 161	5 759	5 775	-2.04	-0.45
	Per capita consumption <sup>1</sup>	kg/cap	48.7	46.2	47.2	-1.96	-0.12
	Exports	kt	672	809	862	1.41	1.84
	Imports	kt	3 587	3 478	3 629	-0.43	0.23

1. Per capita consumption expressed in retail weight. Carcass weight to retail weight conversion factor of 0.7 for beef and veal, 0.78 for pigmeat and 0.88 for both sheep meat and poultry meat.

2. Least squares growth rate.