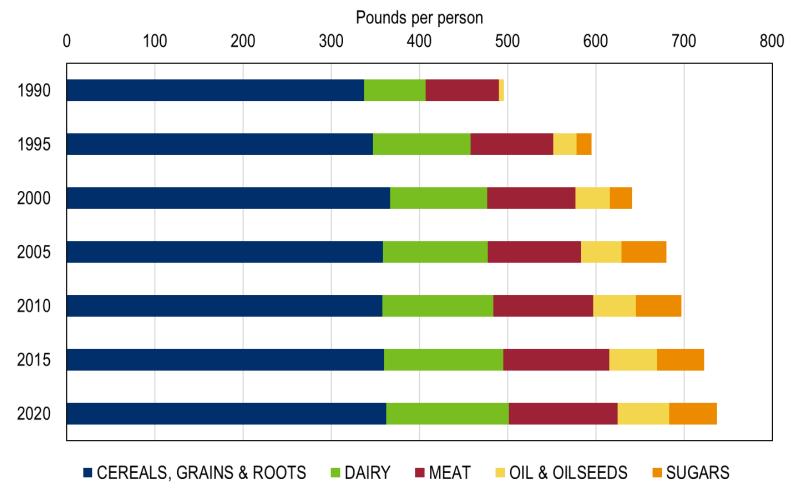
DPC 2018

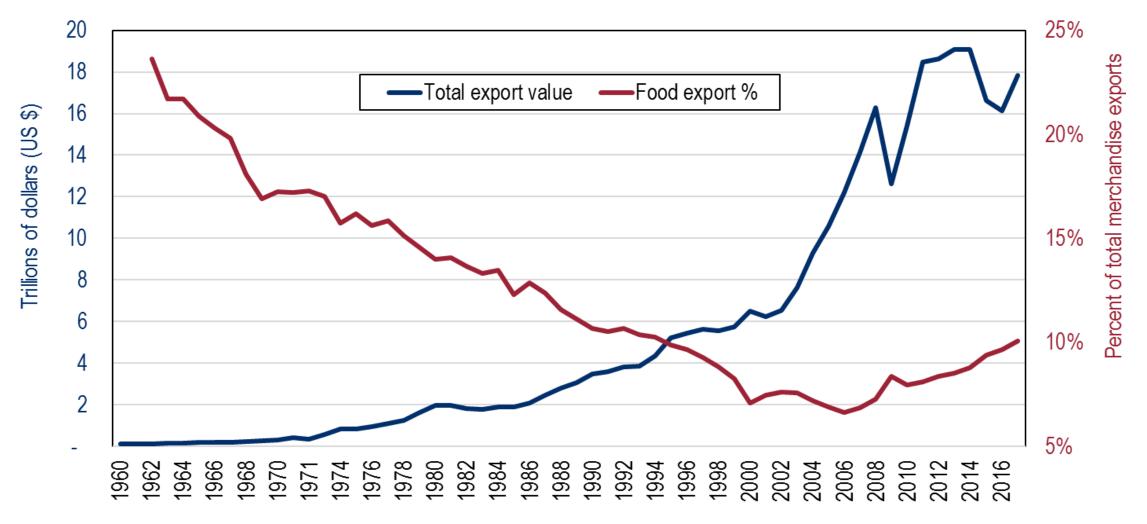
Chris Allen

What does the world eat?



Source: OECD FAO

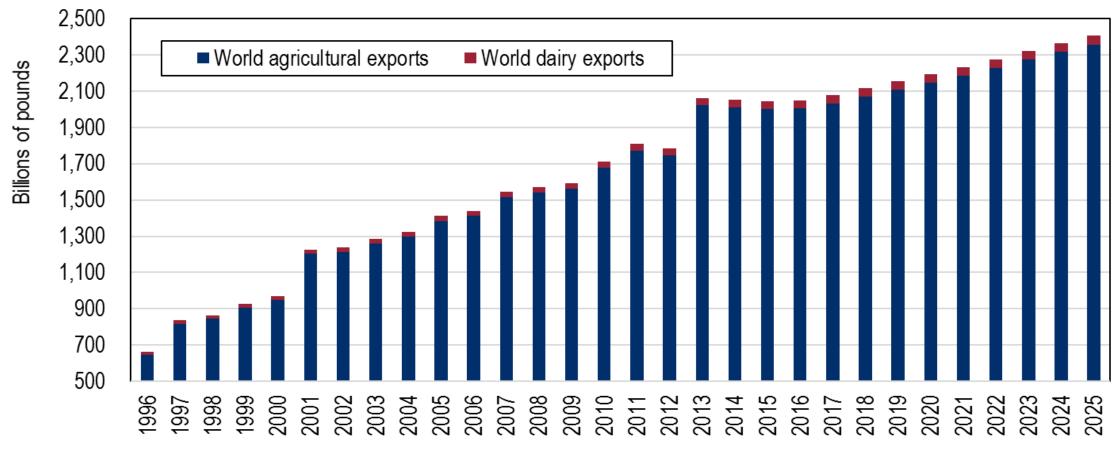
Food Exports vs Other Exports



Source: OECD FAO

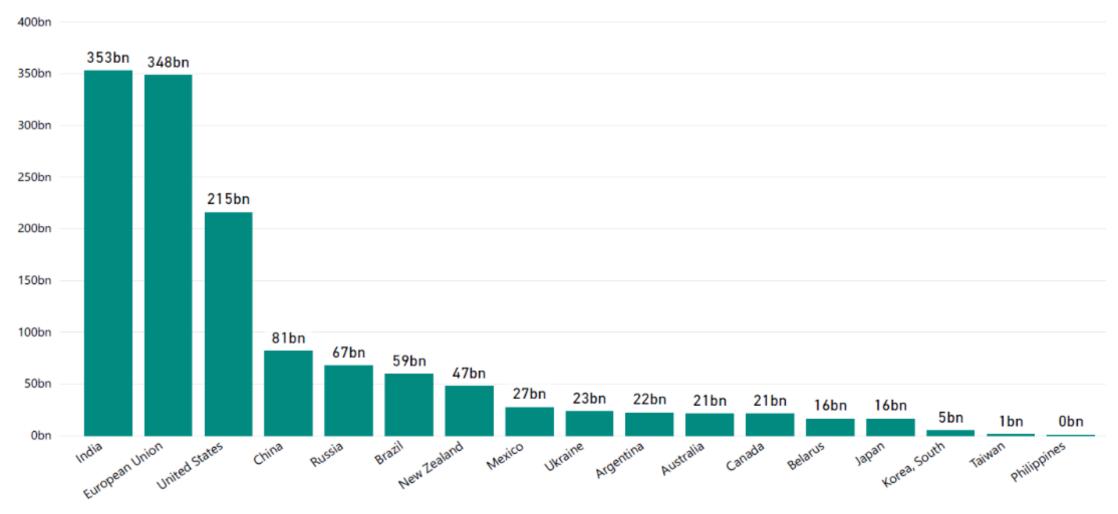
Dairy's portion of agriculture trade

Not adjusted to milk equivalent



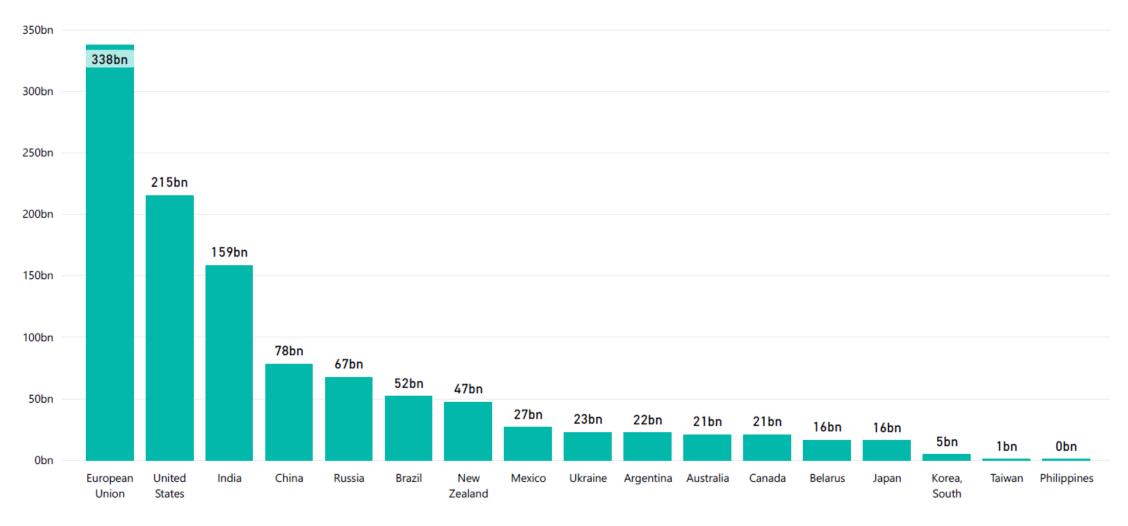
Source: The World Bank

Global milk production 2017 (includes buffalo)



Source: USDA

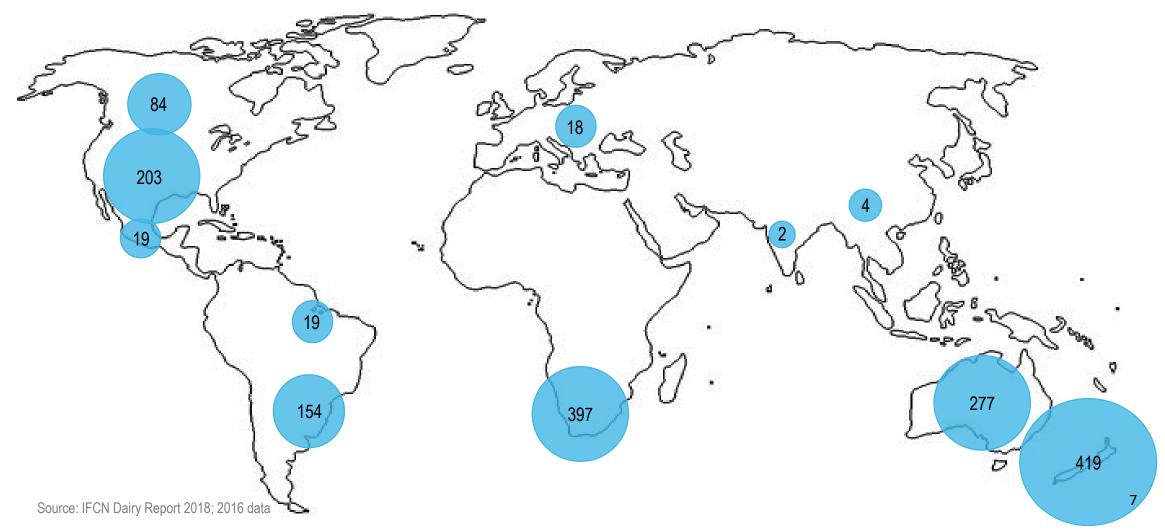
Global milk production 2017 (cow only)



Source: USDA 6

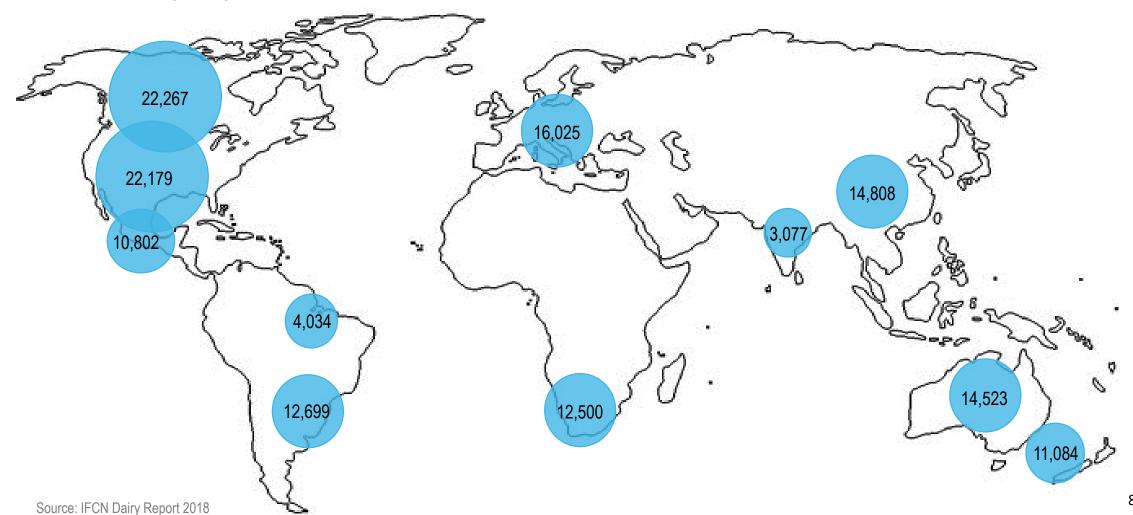
Average dairy herd size

IFCN Dairy Report 2018

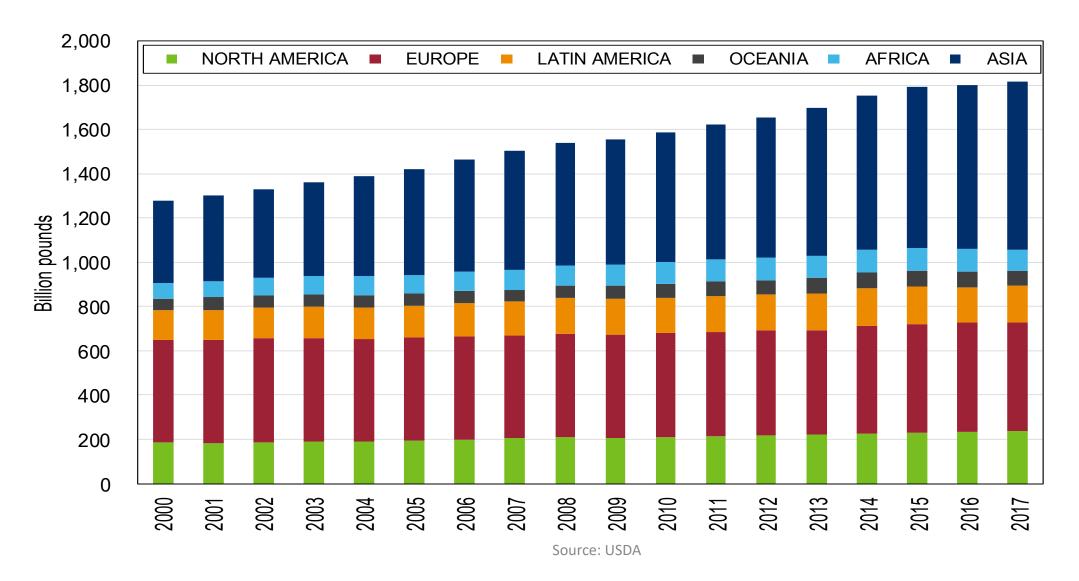


Average annual pounds of milk per cow

IFCN Dairy Report 2018



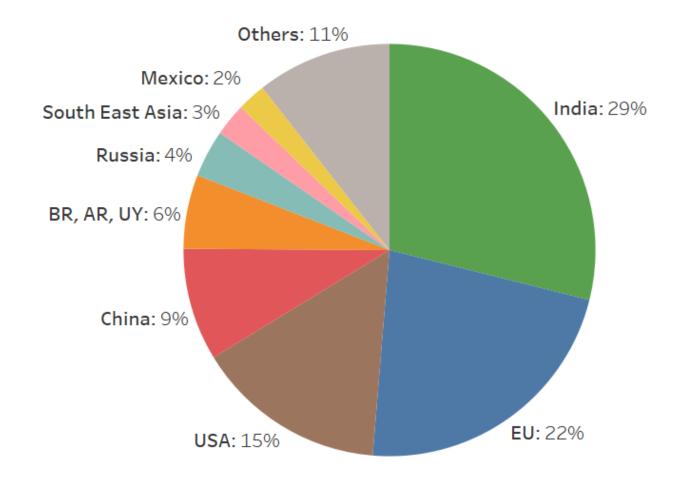
Global milk production



9

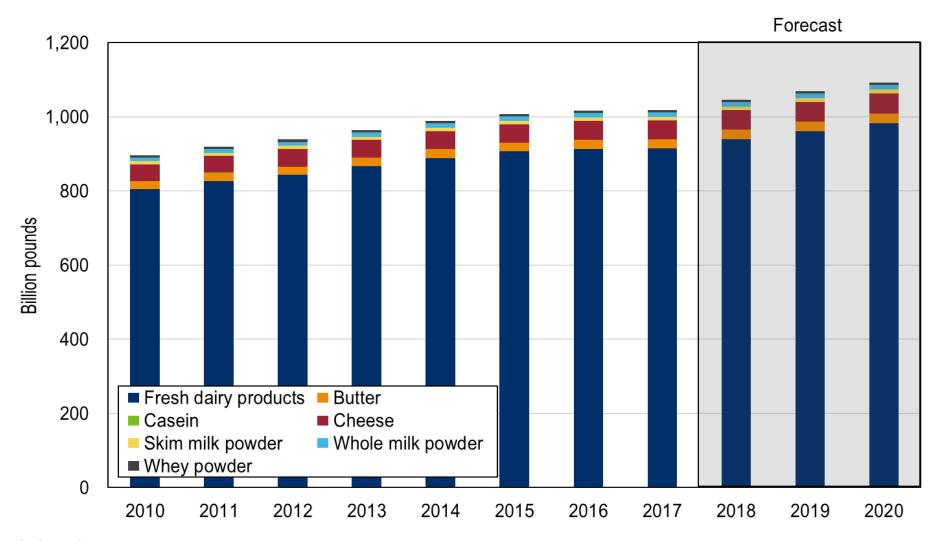
GDC Countries' Shares of 2017 Dairy Consumption in Milk Equivalent (MEq)

Thank you, Gira!



Source: Gira GDC17

Global consumption by dairy product

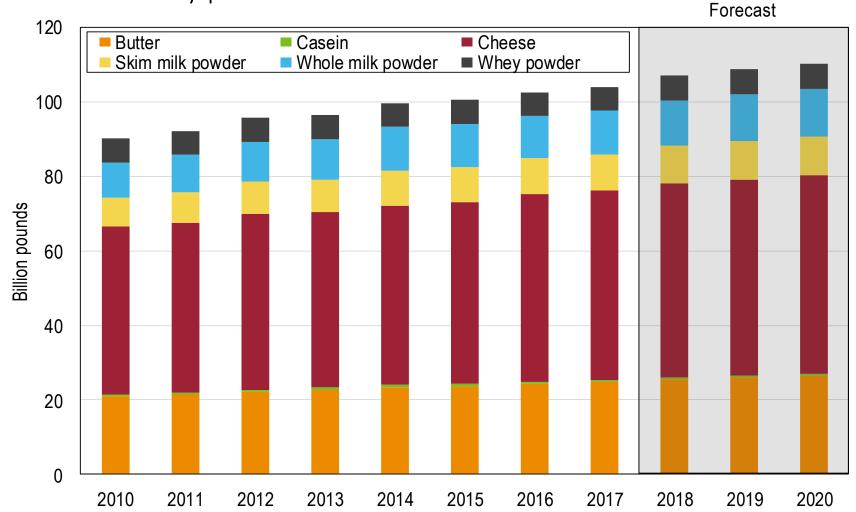


Source: OECD FAO 11

Global dairy products consumption

Without fresh dairy products

Source: OECD FAO

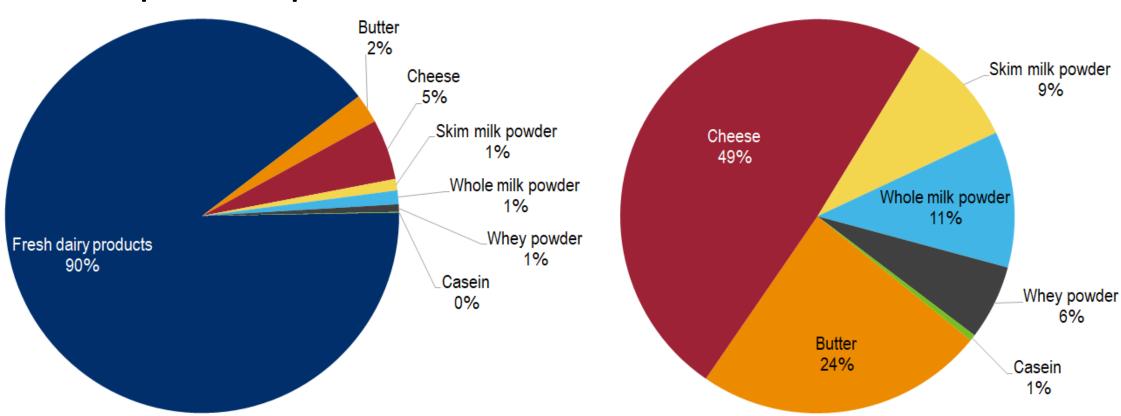


12

Global dairy products consumption - 2016

Consumption of all products

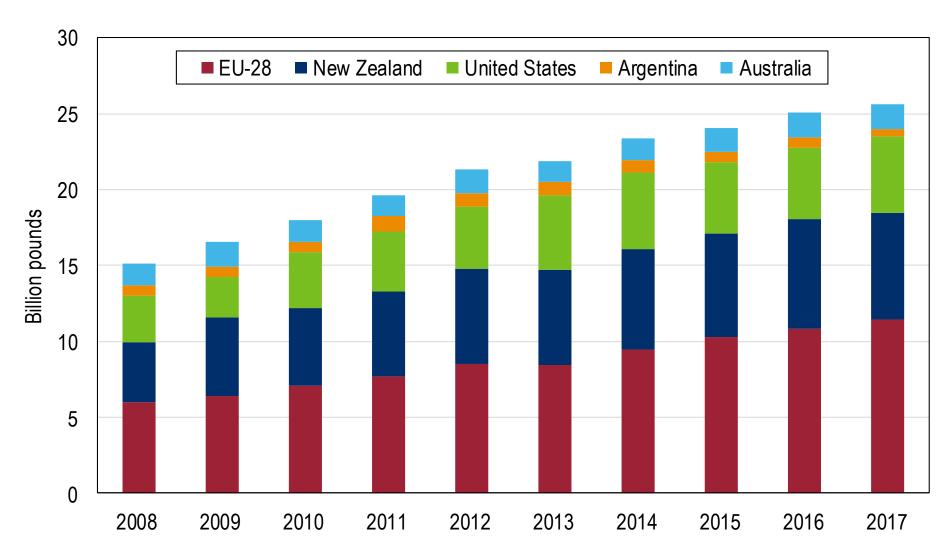
Without fresh dairy products



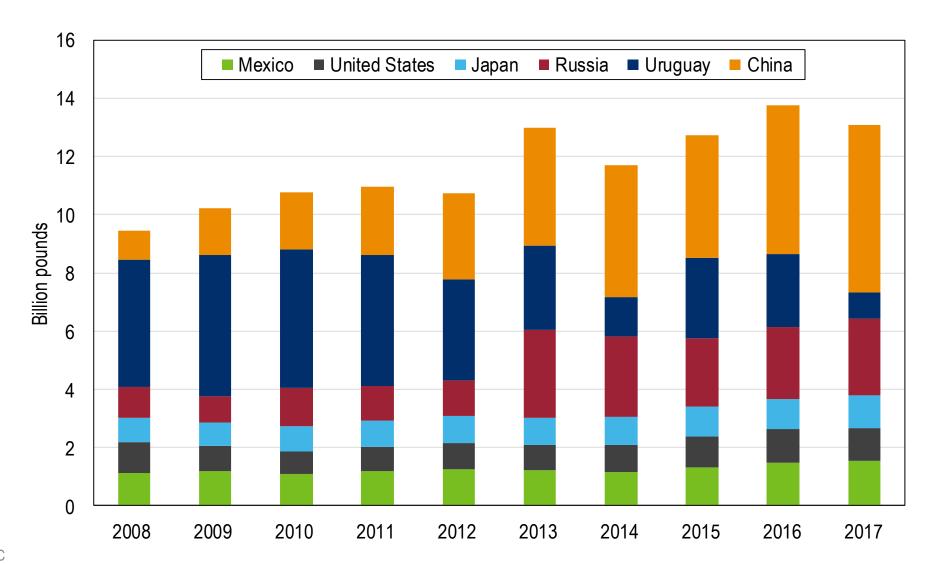
World: self-sufficiency rate (per region)

Region		2005	2015
sia		92%	90%
urope		106%	111%
	EU	109%	112%
	Non-EU	101%	108%
orth America		102%	108%
outh America		102%	101%
frica		84%	83%
entral America		75%	78%
		2.450/	2000

Largest global dairy exporters

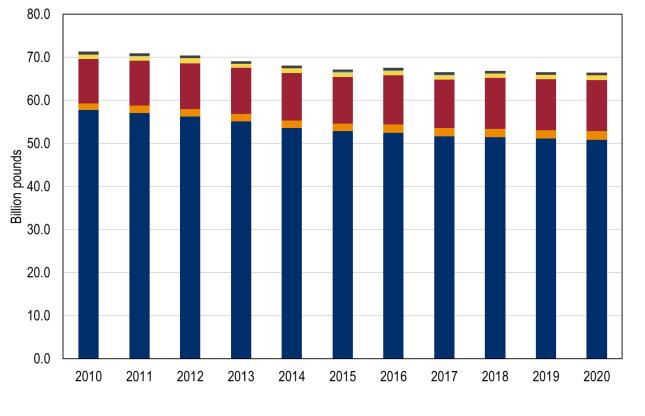


Largest global dairy importers

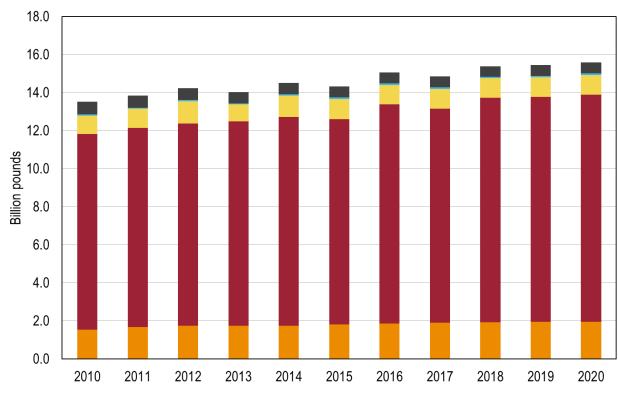


United States dairy consumption

All product categories



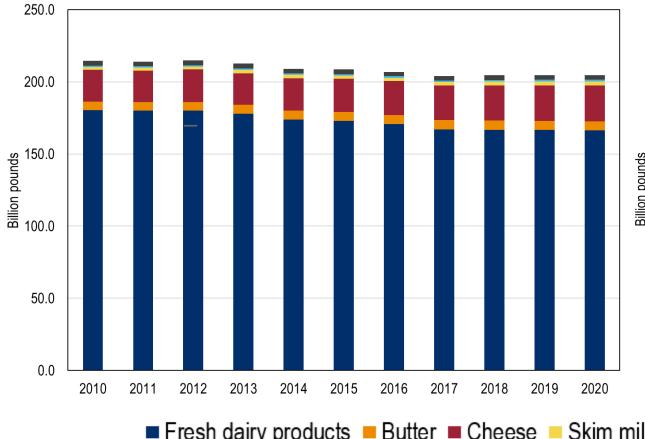
Without fresh dairy products



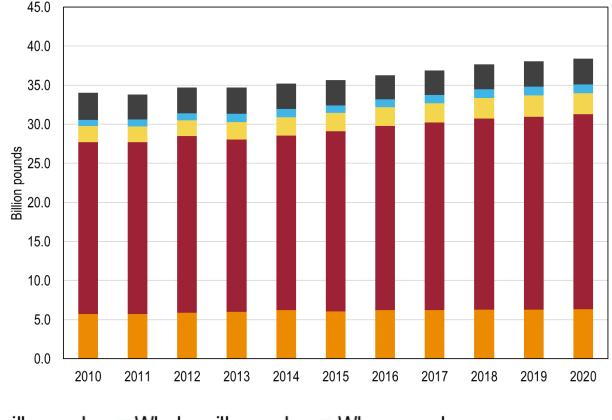
■ Fresh dairy products
■ Butter
■ Cheese
■ Skim milk powder
■ Whole milk powder
■ Whey powder

European dairy consumption

All product categories



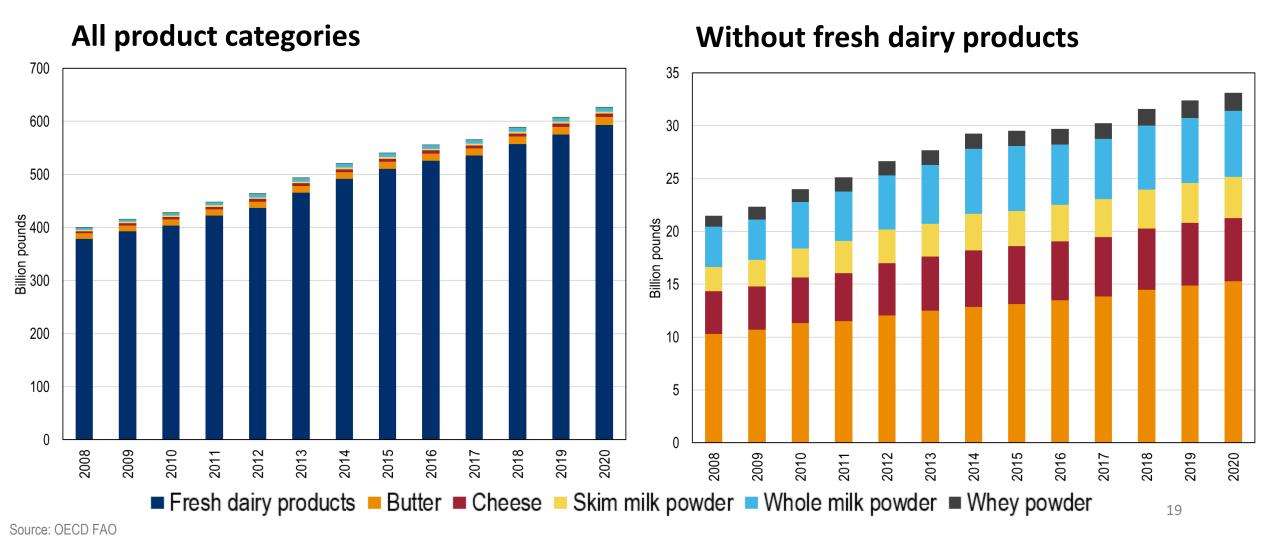
Without fresh dairy products



18

■ Fresh dairy products
■ Butter
■ Cheese
■ Skim milk powder
■ Whole milk powder
■ Whey powder

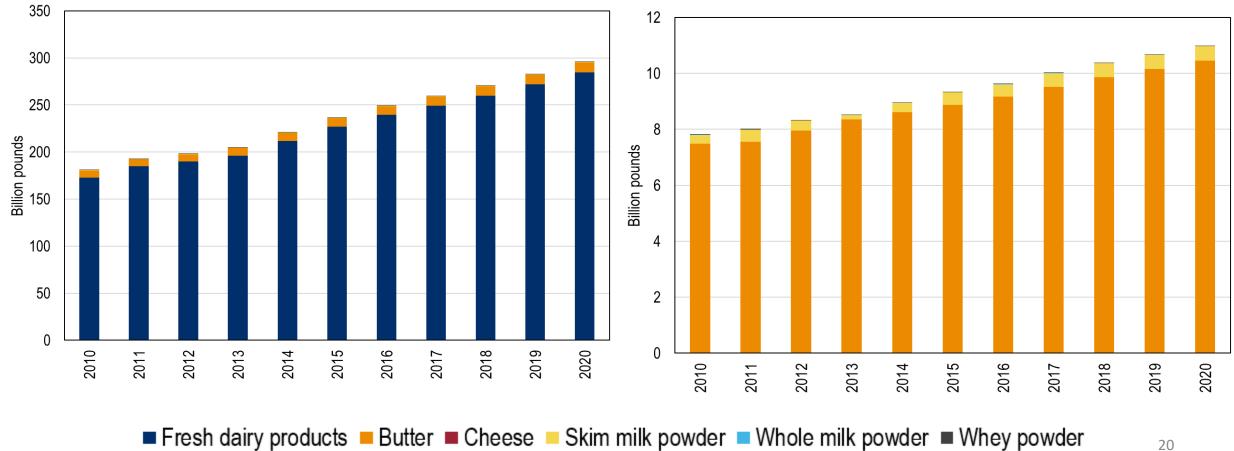
Asia dairy consumption



India dairy consumption

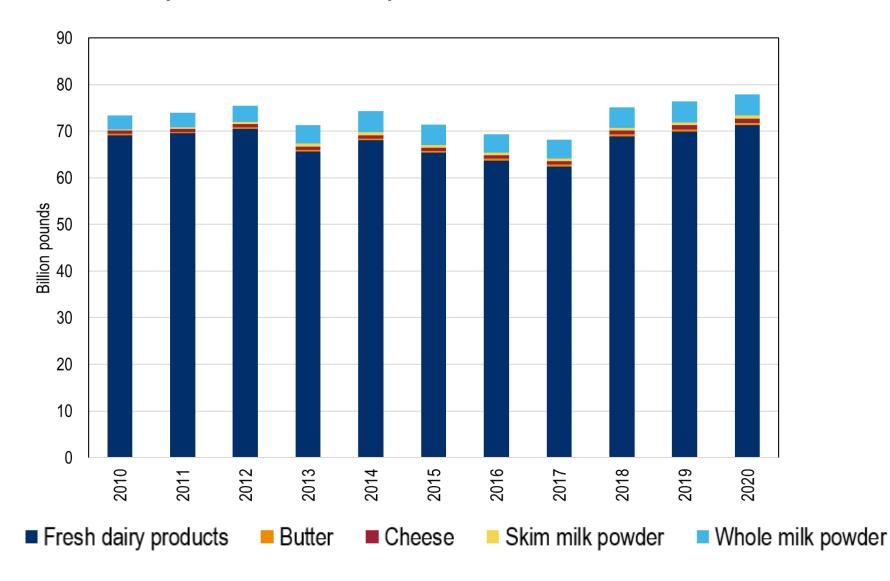
All product categories

Without fresh dairy products



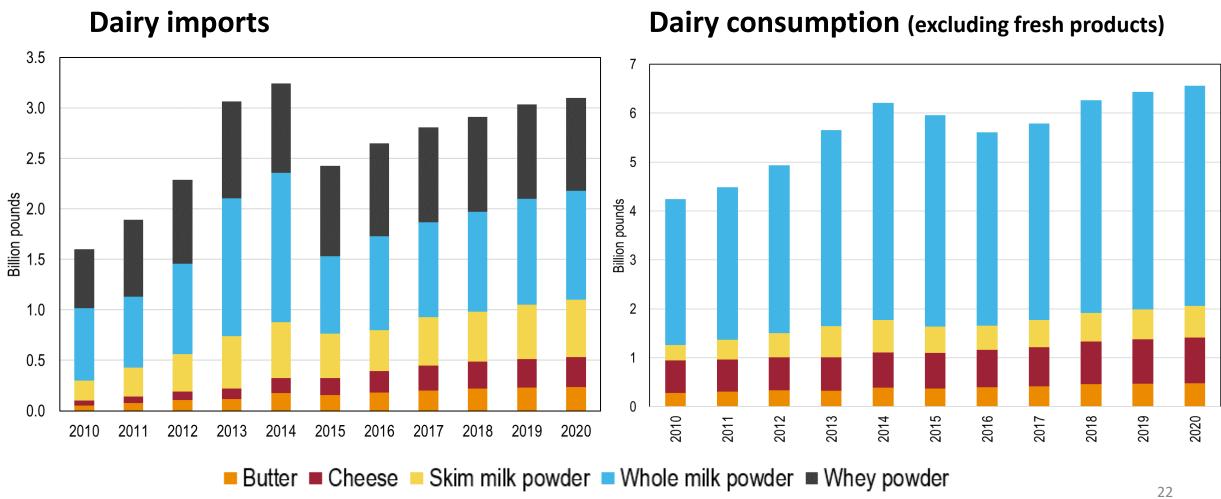
Source: OECD FAO

China dairy consumption



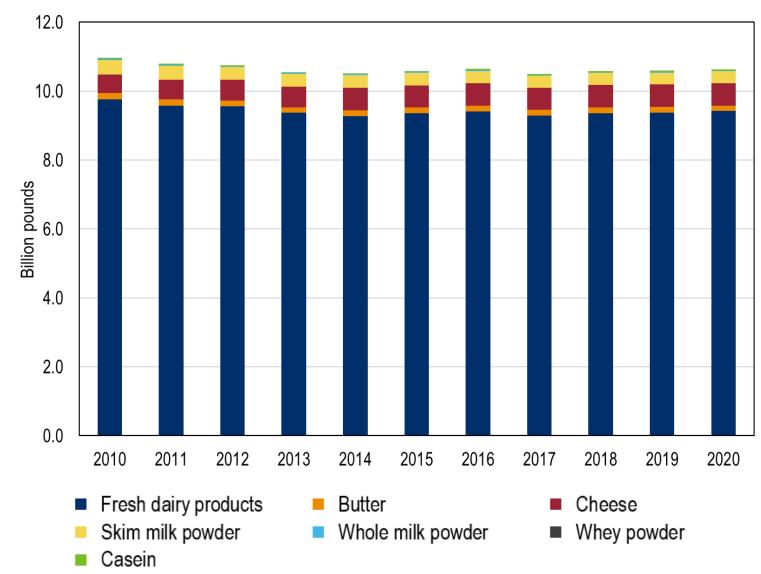
21

China



Source: OECD FAO

Japan dairy consumption

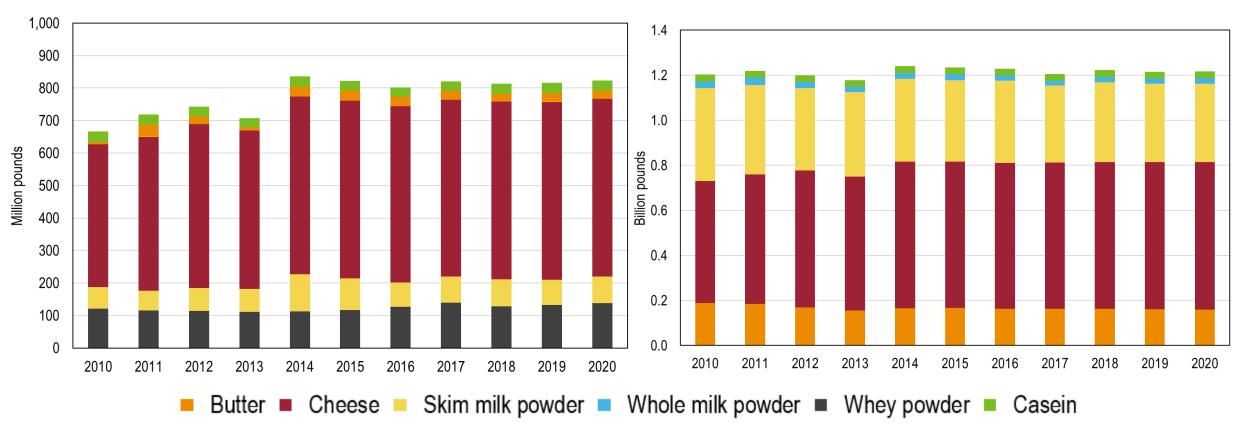


23

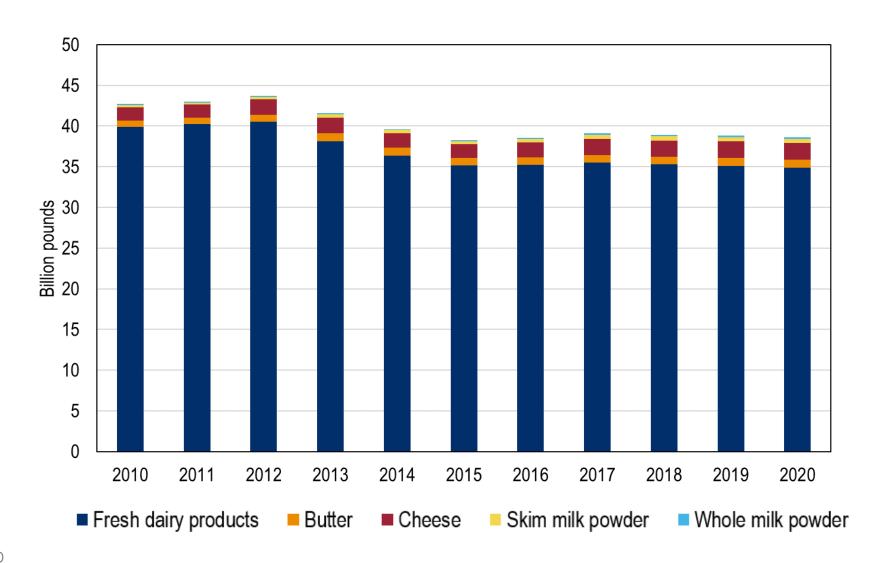
Japan

Dairy imports

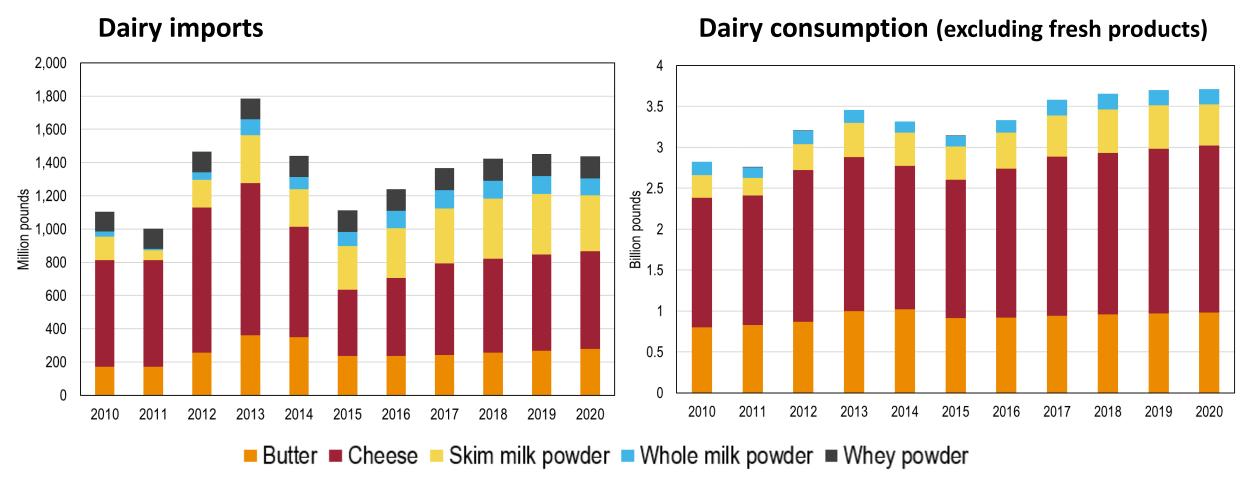
Dairy consumption (excluding fresh products)



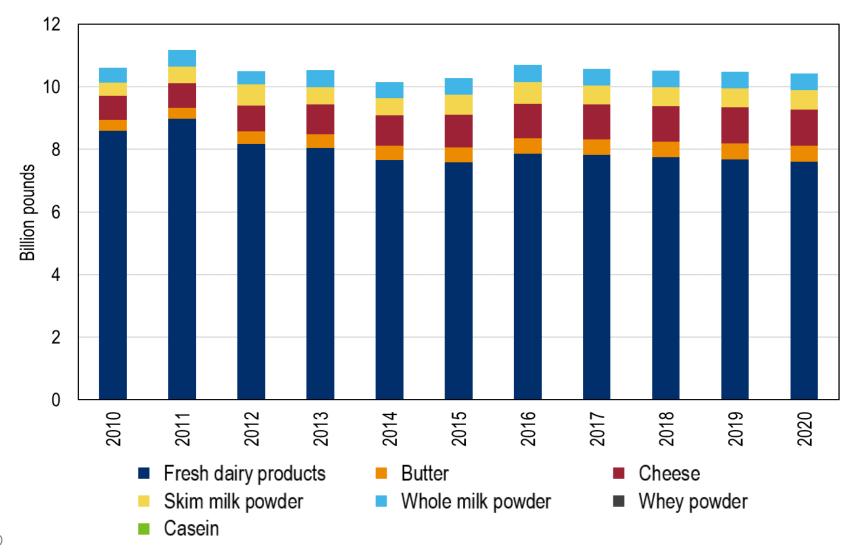
Russia dairy consumption



Russia

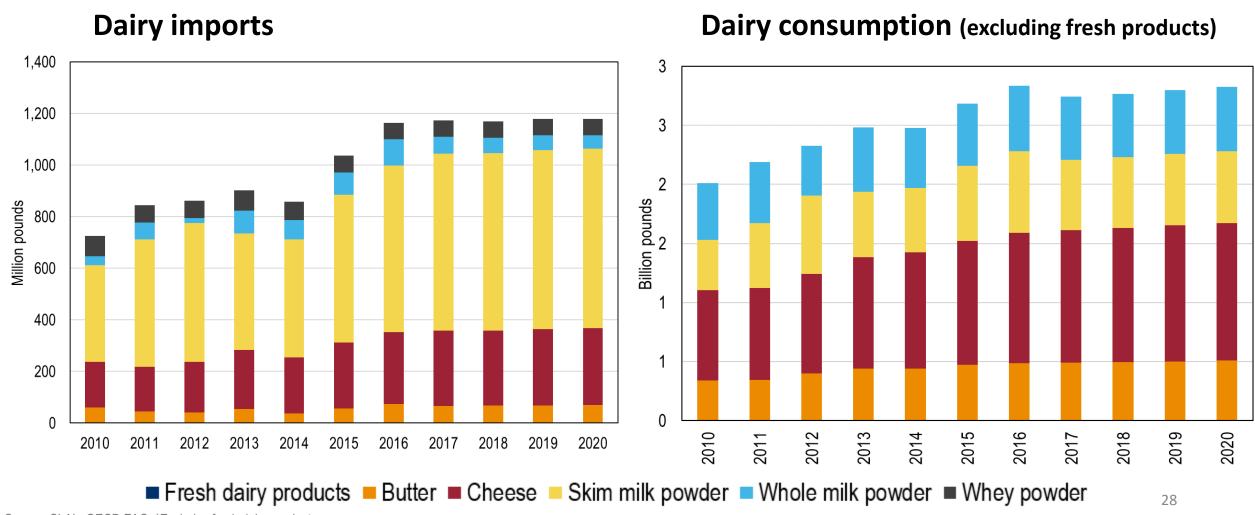


Mexico dairy consumption



27

Mexico

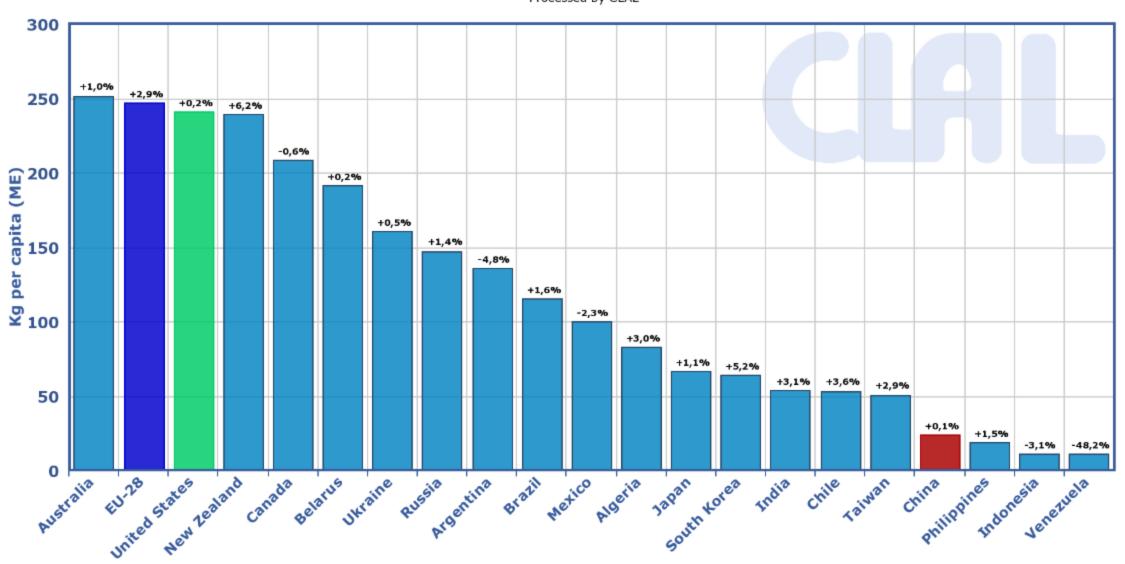


Per capita consumption across selected countries in Milk Equivalent (ME) - Year 2017

Change from previous year

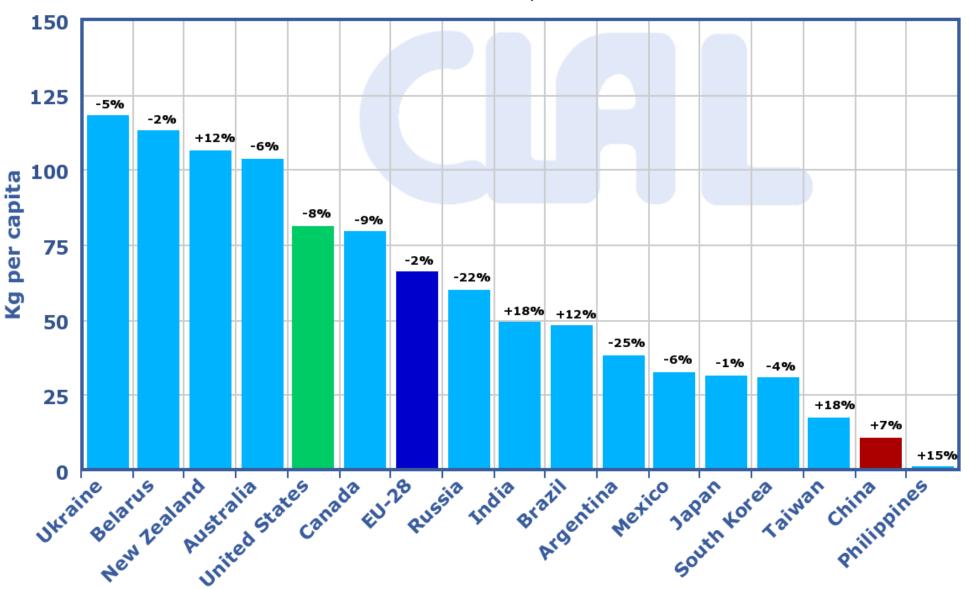
(Selected products: Milk, SMP, WMP, Cheese)

Processed by CLAL



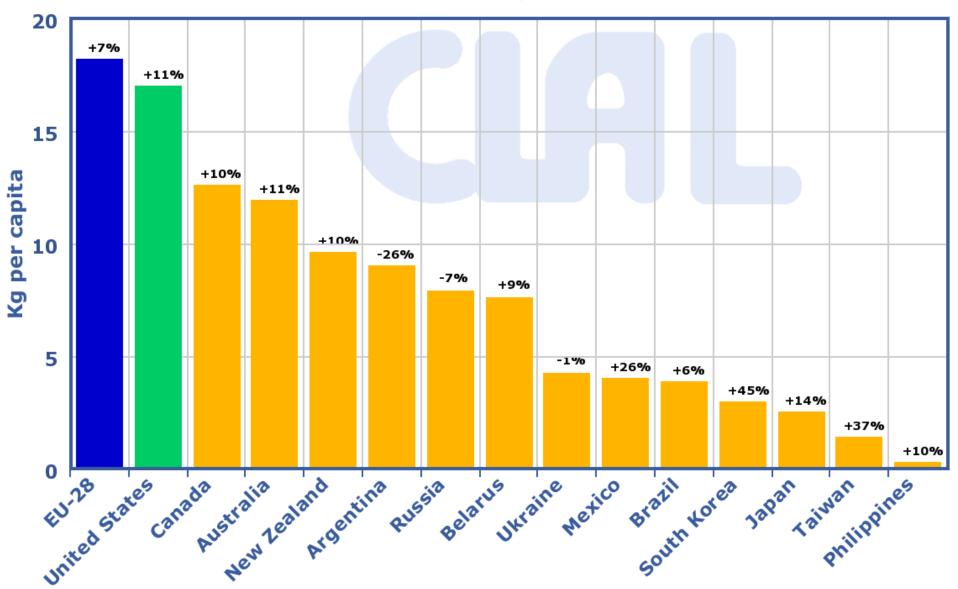
Per capita Milk consumption

% variation referred to 2017 vs 2012



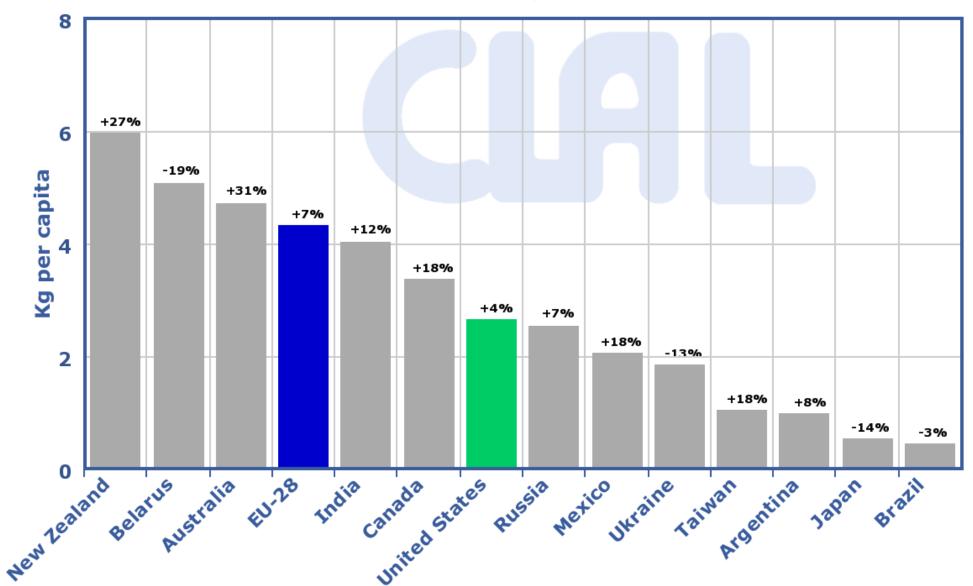
Per capita Cheese consumption

% variation referred to 2017 vs 2012



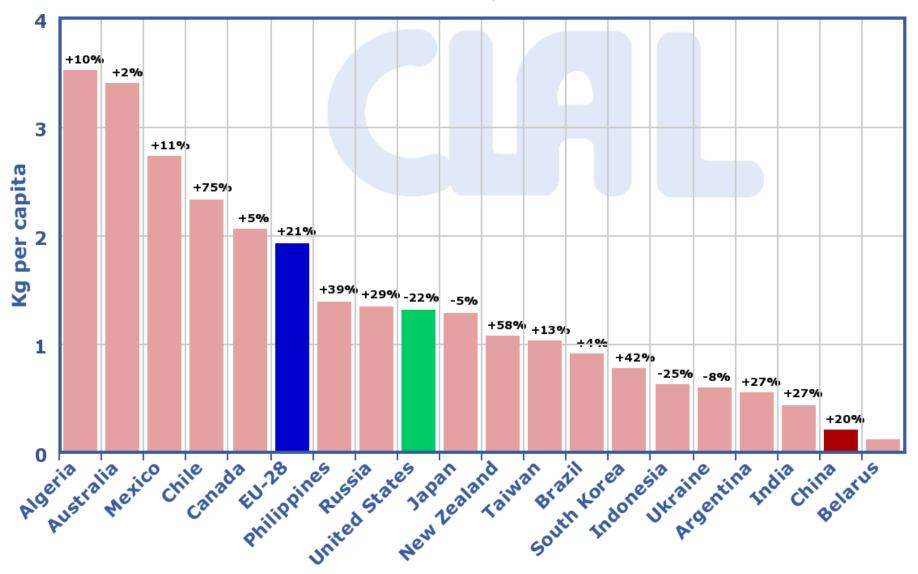
Per capita Butter consumption

% variation referred to 2017 vs 2012



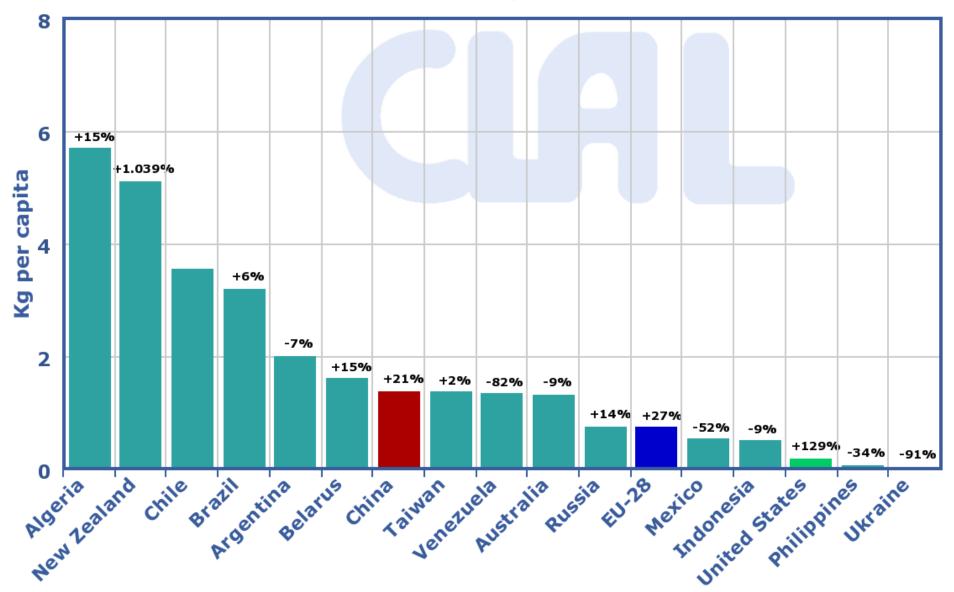
Per capita SMP consumption

% variation referred to 2017 vs 2012



Per capita WMP consumption

% variation referred to 2017 vs 2012



What is the future for dairy?

GDC Milk Collection Change in Total from 2017 to 2022 (million tons)

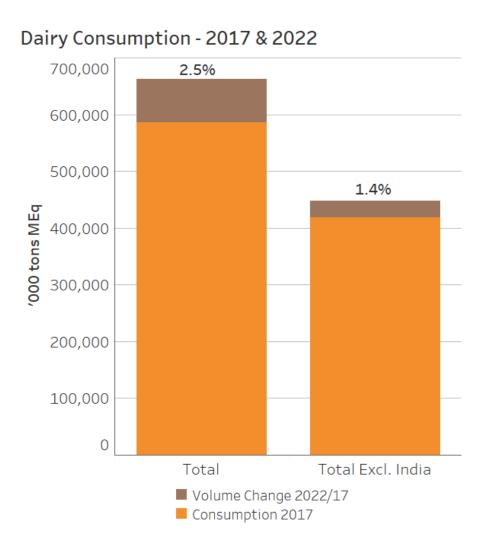
Thank you, Gira!



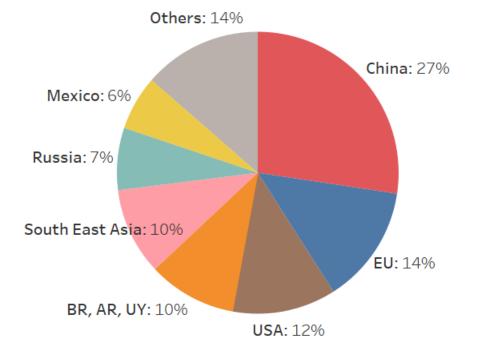
Source: Gira compilation

Dairy Consumption Change 2017-2022

CAGR 17/22: +2.5%



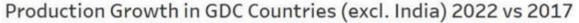
Contributions of GDC Countries (excl. India) to Consumption Change Between 2017 and 2022

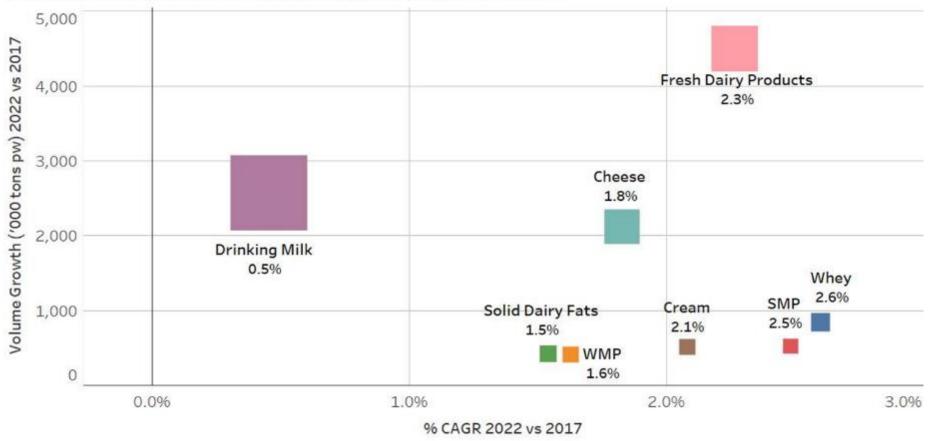


Source: Gira GDC17

Production growth by main categories of products

Drinking milk is the only product with low growth for the future





Source: Gira GDC17

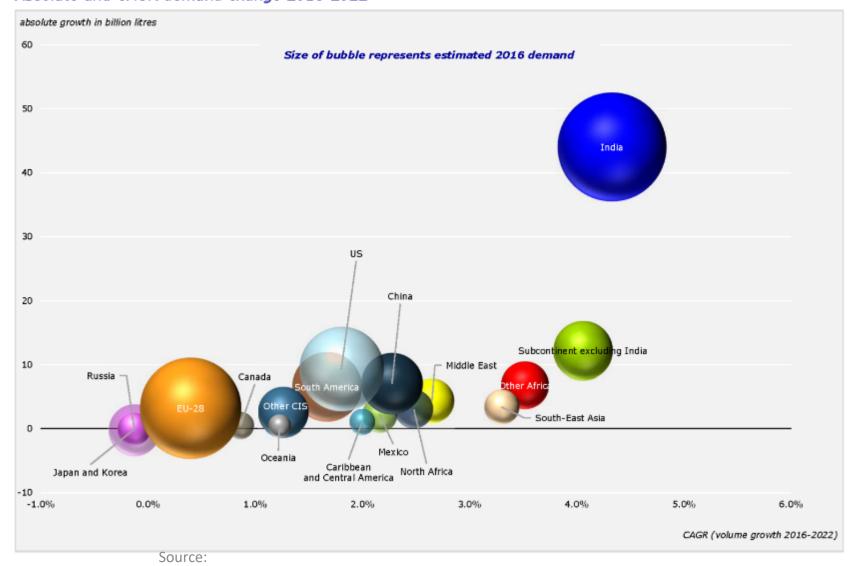
Notes: 1. The size of the squares is proportional to the production volume in 2022. 2. India was excluded.

Overall dairy demand is a growth story



- India remains the standout, as it continues to grow in population with rising per capita consumption, but remains nearly 100% self sufficient
- Other regions are split between faster-growth emerging markets normally from a low base but with consumption and population growth—and slow-growth mature markets, with slow or no population growth and more stable higher consumption

Absolute and CAGR demand change 2016-2022

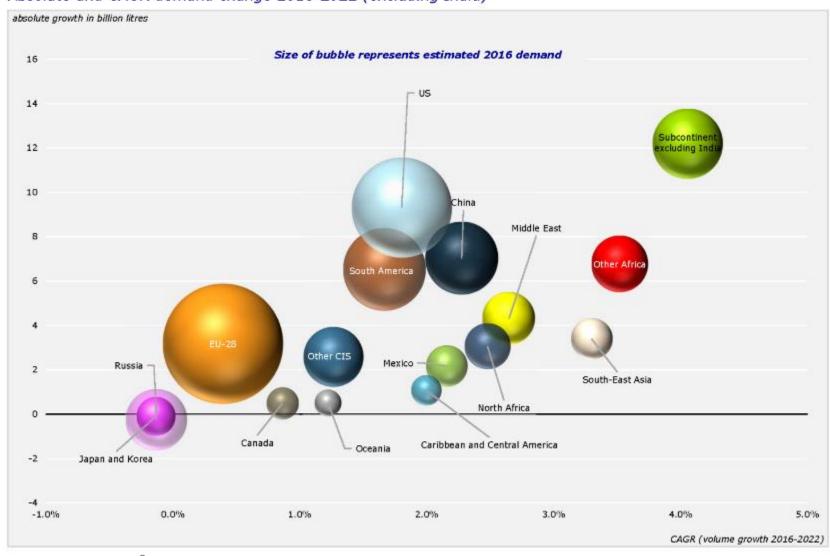


The same picture without the distorting effects of India



Absolute and CAGR demand change 2016-2022 (excluding India)

- Removing India highlights more detail from the remaining regions
- Despite low oil prices, potential reduction in per capita consumption and high population, growth in Africa looks set to maintain high growth levels
- China will be growing at a slower rate as it adjusts to a new 'norm'
- North America will continue to grow fuelled by strong economic growth
- European growth is expected to continue at a very modest rate due to sluggish economic growth



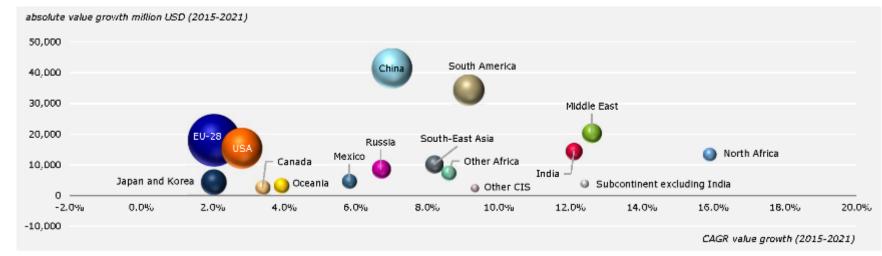
Source:

Shifting the focus from volume to value growth



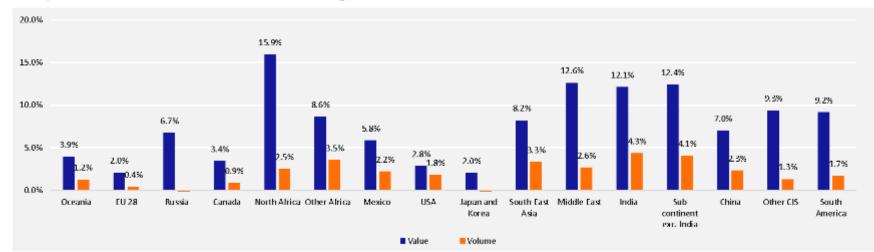
Based on Euromonitor
estimates for value
change over a similar
period, the picture
changes with much
greater value in absolute
terms from China

Dairy market value growth forecast



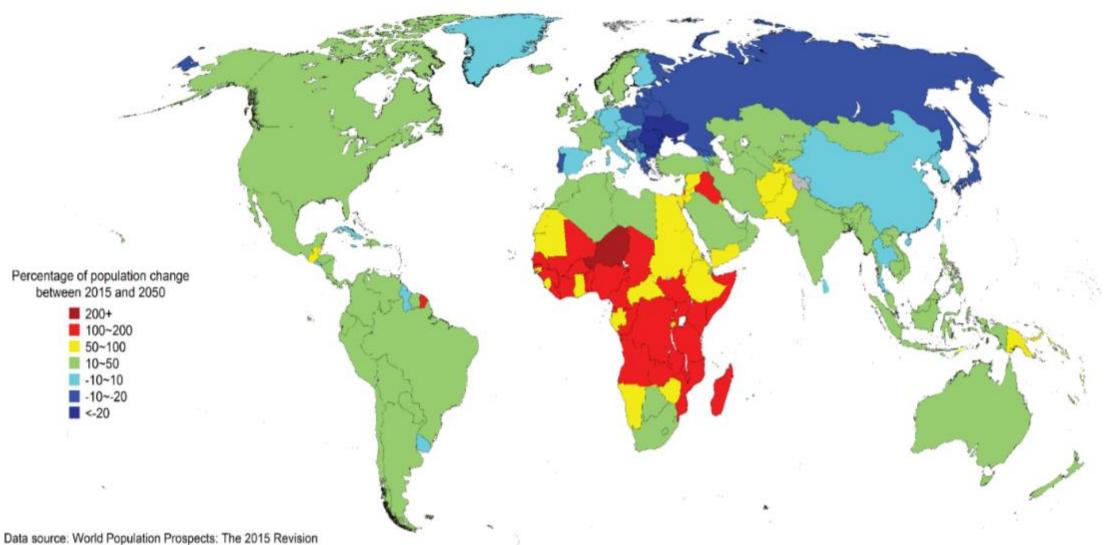
Source: Euromonitor

Comparison of value and volume demand growth forecasts



Source: Euromonitor, Rabobank

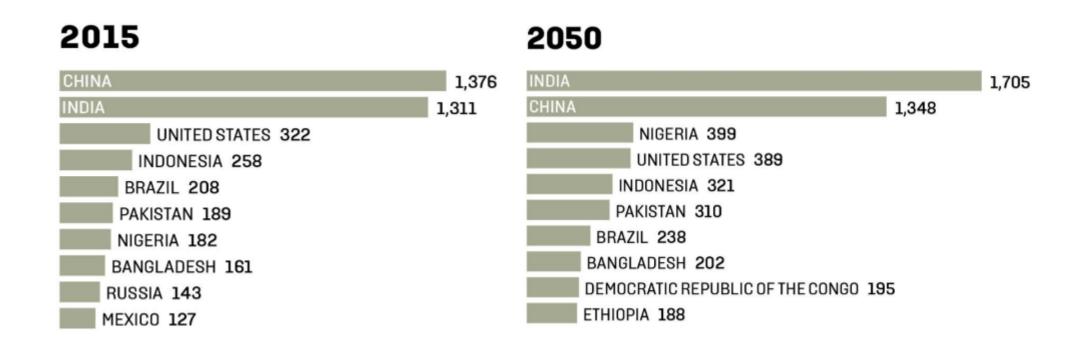
Projected population growth, 2015-2050



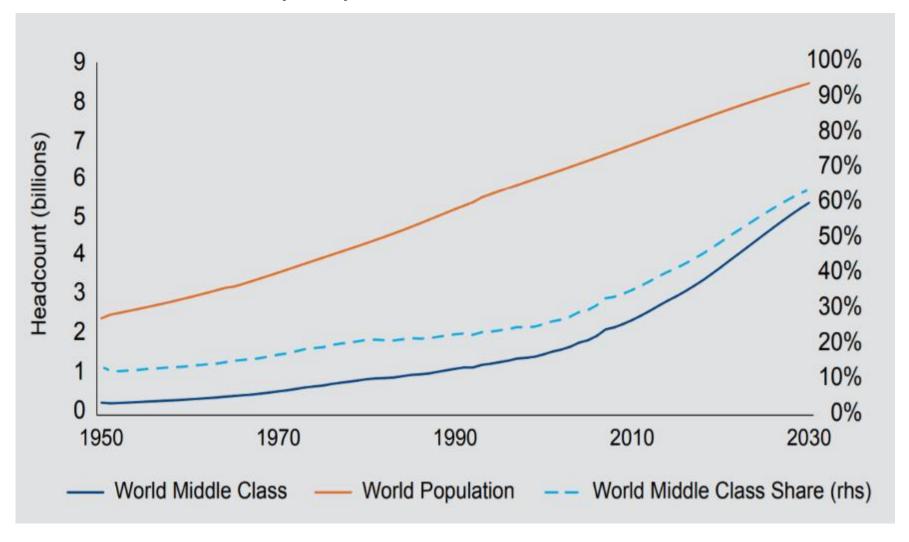
The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined.

LARGEST POPULATIONS (IN MILLIONS)



Middle class population



Global growth driven by emerging and developing economies

Gross Domestic Product (GDP) Growth					
Country/Region	2015	2016	2017	2018	2019
World Output	3%	2%	3%	3%	3%
Advanced Economies	2%	2%	2%	2%	2%
United States	3%	2%	2%	2%	2%
Euro Area	2%	2%	2%	2%	2%
Japan	1%	1%	2%	1%	1%
Emerging and Developing Economies	4%	4%	4%	5%	5%
China	7%	7%	7%	6%	6%
India	8%	7%	7%	8%	8%
Mexico	3%	2%	2%	2%	3%
ME&NA	3%	3%	2%	3%	3%

Source: World bank 45

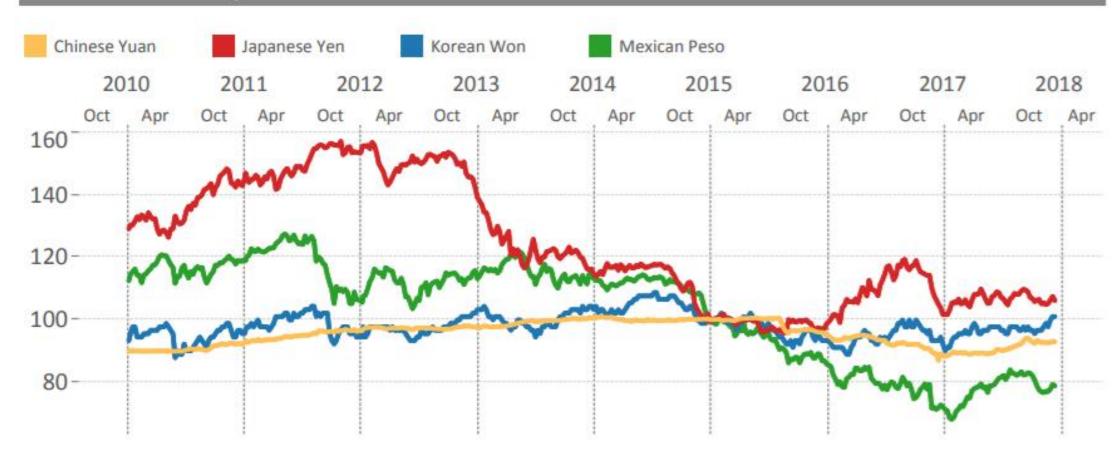
Exchange Rates Relative to U.S. Dollar, EXPORTING Countries Indexed to January 1, 2015



Source: Oanda.com 46

Exchange Rates Relative to U.S. Dollar, IMPORTING Countries

Indexed to January 1, 2015



Source: Oanda.com 47



New website helps consumers eat food that lines up with their sustainability and social values



washingtonpost.com

Get ready for pea milk. It doesn't taste like peas and it's not even green.

Enter pea milk, the newest nondairy beverage on the block. It's vegan, nut free, soy free, lactose free and gluten free. It's better for the environment than almond milk. And it has more protein and calcium than other alternative milks.



An assortment of pea milks from Bolthouse Farms. (Jennifer Chase for The Washington Post)



A general view of plastic straws, as environmentalists have backed a new campaign calling on both the Scotlish and UK governments to crack down on the use of plastic drinking straws. (Photo by Kinsty O'ConnoctPA images via Getly Images)









Our Process

How do we do it? With natural resources and human ingenuity. Instead of having cows do all the work, we've developed a process similar to craft brewing. Using yeast and age-old fermentation techniques, we make the very same dairy proteins that cows make.

sparks & honey / DAS are macroscored

Zero plastic bags or zero waste? In defence

of a plastic bag ban

Plastic-free stores

View all news

nushroom in Malaysia

of Singapore's rejection





SUSTAINABLE GOALS













12 RESPONSEBLE CONSUMPTION AND PRODUCTION

















Dairy impacts









Dairy affects















Dairy influences















13 CLIMATE













Source:

49

International Dairy Federation



Primary discussion topics:

- Environmental impact
- Human and animal health
- Food security
- Food safety
- Economic impact

Source: 50

Gold Standard Dairy Program

- 10 years of Gold Standard as a broad program to engage with members and customers on farm practices
- Currently on 4th program version
- FARM Animal Care adopted as animal care module
- All member farms participate in program





Thank you