



# Trends and Issues in the International Dairy Sector

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June 2024

# Things that matter.

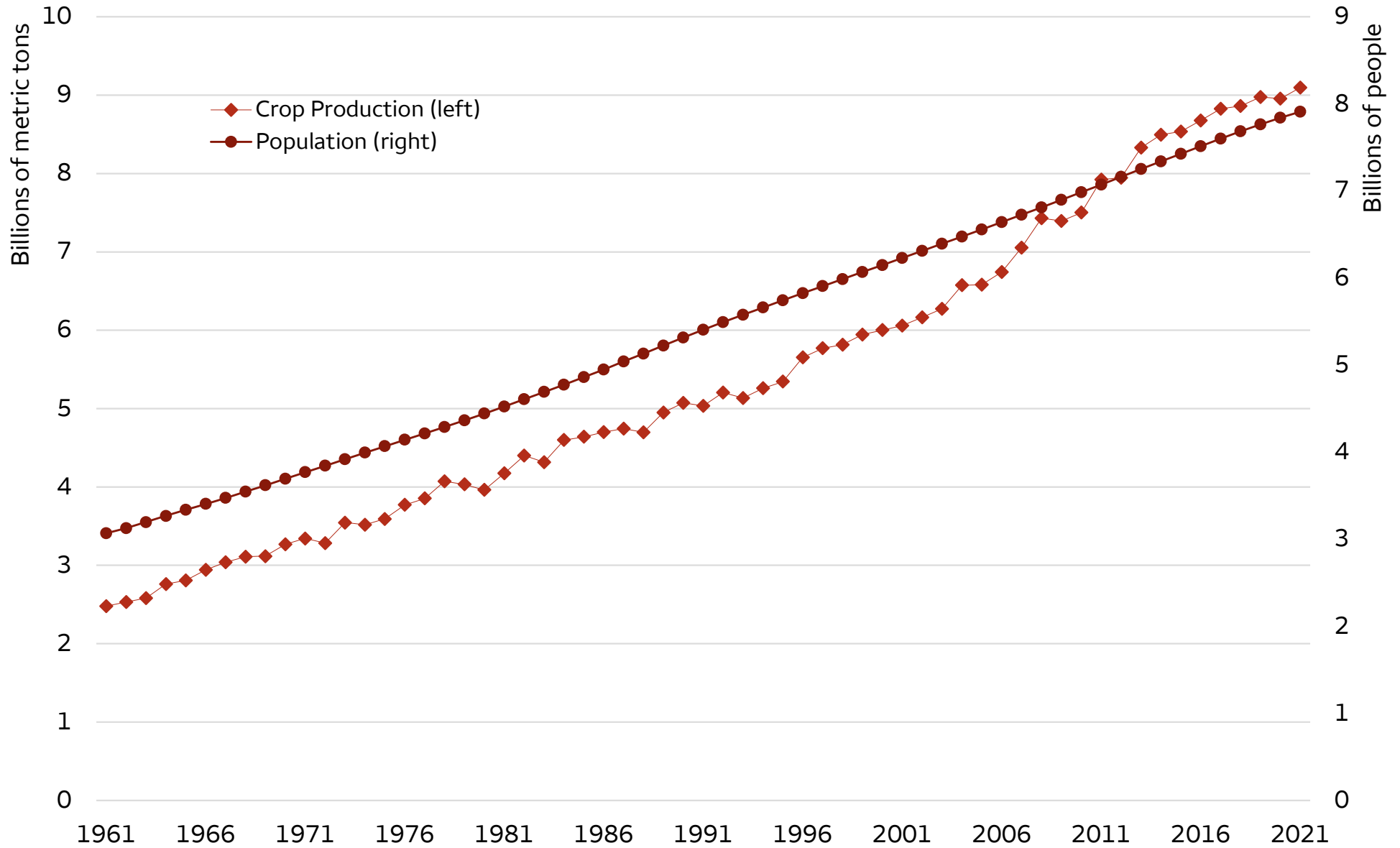
1. Demographics versus economics.
  1. Slowing growth rate for population.
  2. Steady growth rate in global per capita GDP.
2. The biggest markets are far from saturated.
3. The U.S. producers can only export to higher income markets.
  1. Labor and capital costs are international.
  2. Only some markets want and can pay for quality.

# Ultimately, all proteins start with the feed costs.

- Biofuels triggered a new competitor for proteins including dairy.
- Biofuels will see much slower growth.
- Battery and high efficiency vehicles will continue to take away market share from biofuels.
- The next best use for grains and forage will always be proteins including dairy.

# U.S. biofuels caused the step up in production in the 2000s.

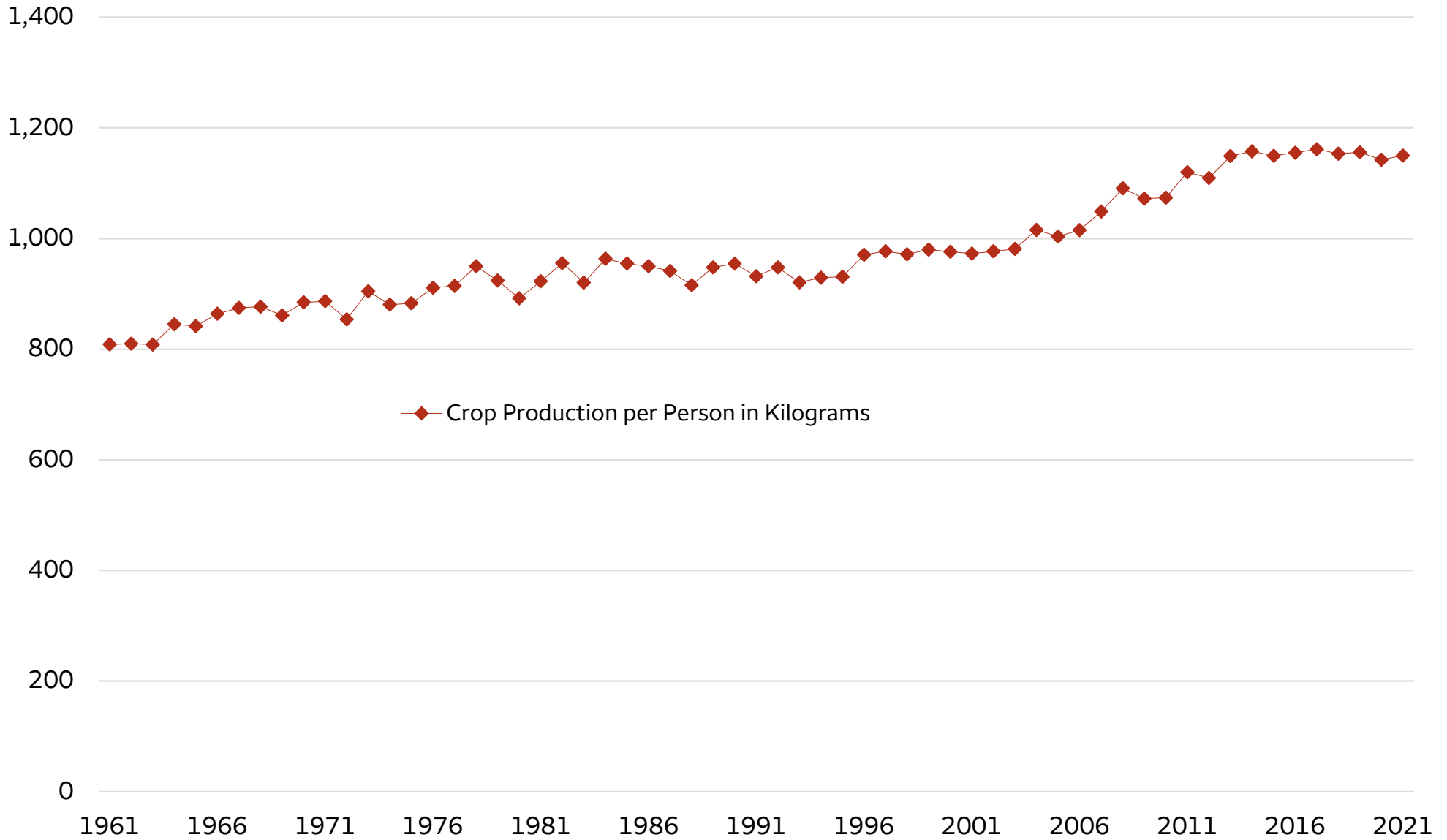
## Global Crop Production versus Global Population



Source: FAOSTAT March 2023

Global crop prices were balanced at approximately 1 mt per capita.

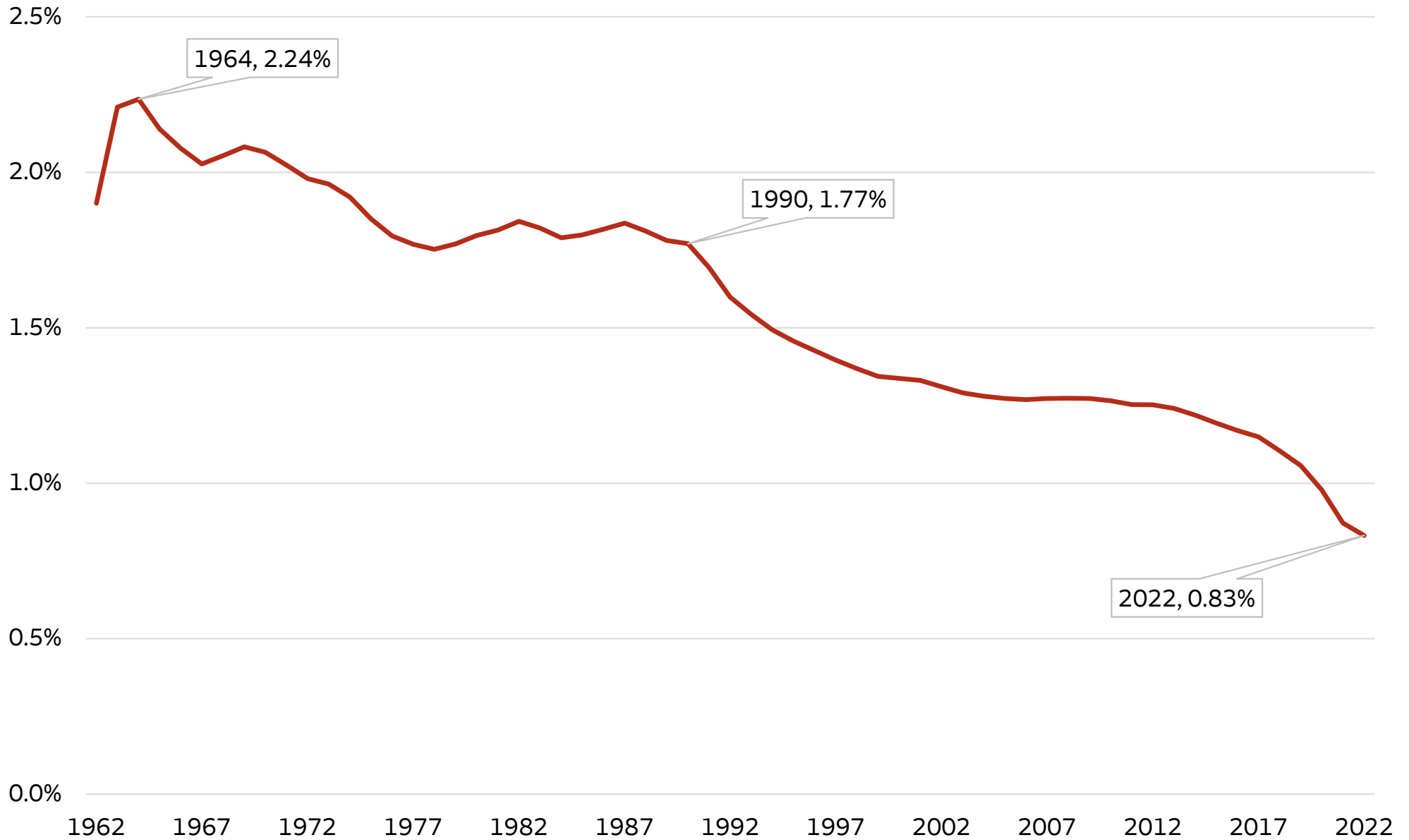
### Global Crop Production per Person



Source: FAOSTAT March 2023

# Most of the world is at 1/3 the yield of grains as the U.S.

## Global Population Annual Percentage Change



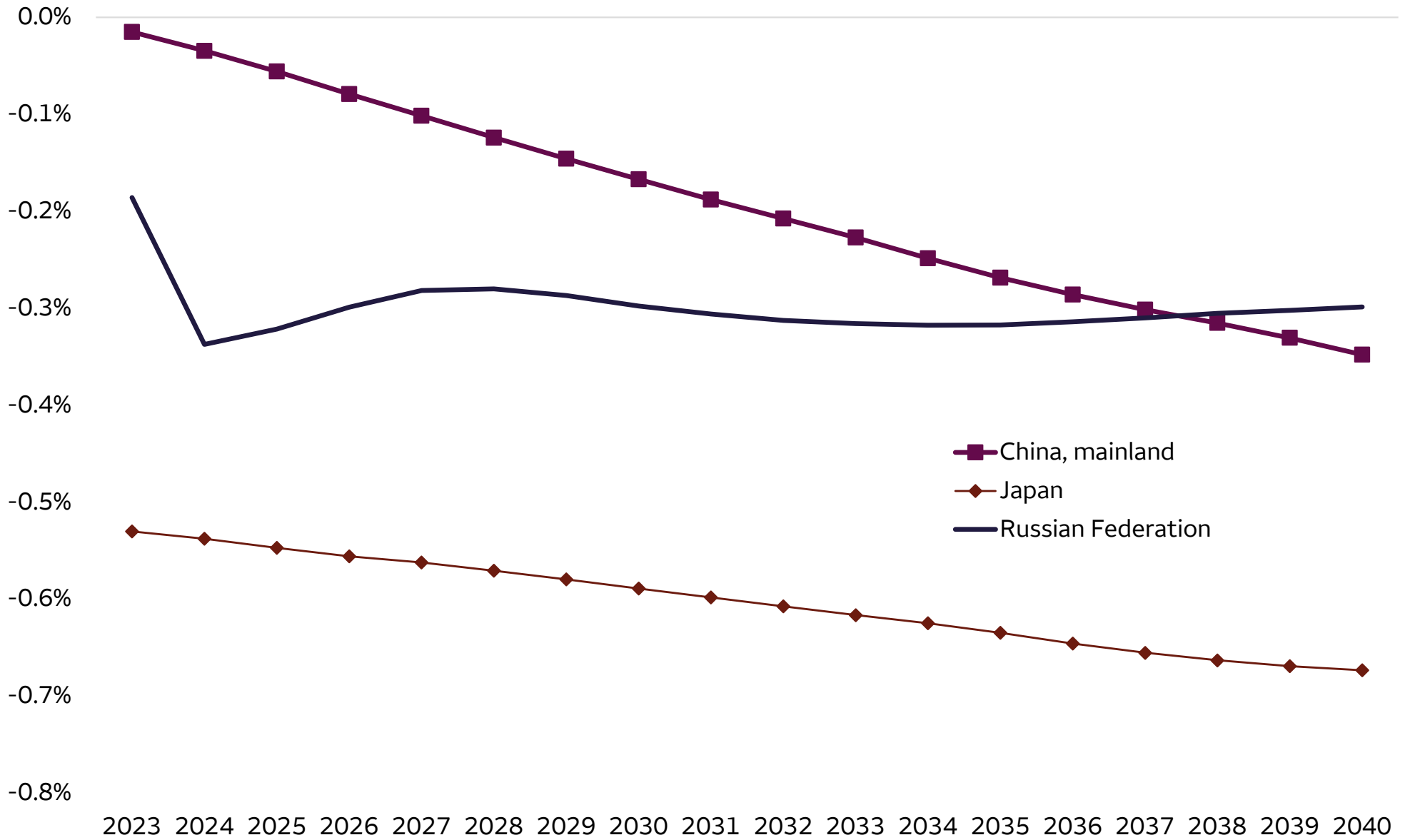
Source: FAOSTAT March 2023

# Demographics are destiny?

- Every country sees slowing or falling population growth rates.
  - Geography doesn't matter
  - Ethnicity doesn't matter
  - Religion doesn't matter
- Income and education slow growth.
- Technology can not be stopped at a border.
- Everyone is lazy and wants someone to cook and clean up.

# Old and tired?

Once you go negative, can you ever bounce back?

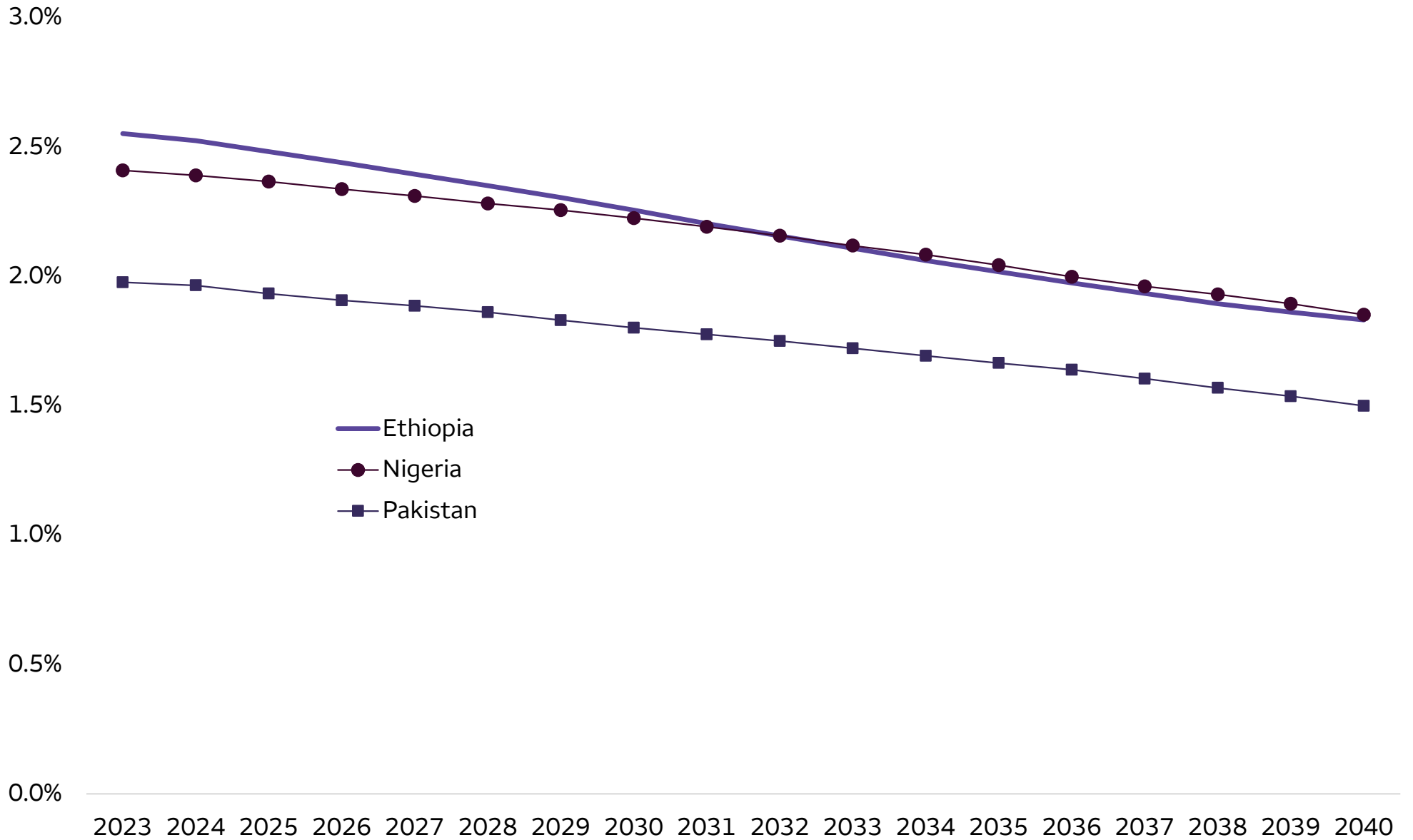


Source: FAOSTAT June 2024



# Booming still.

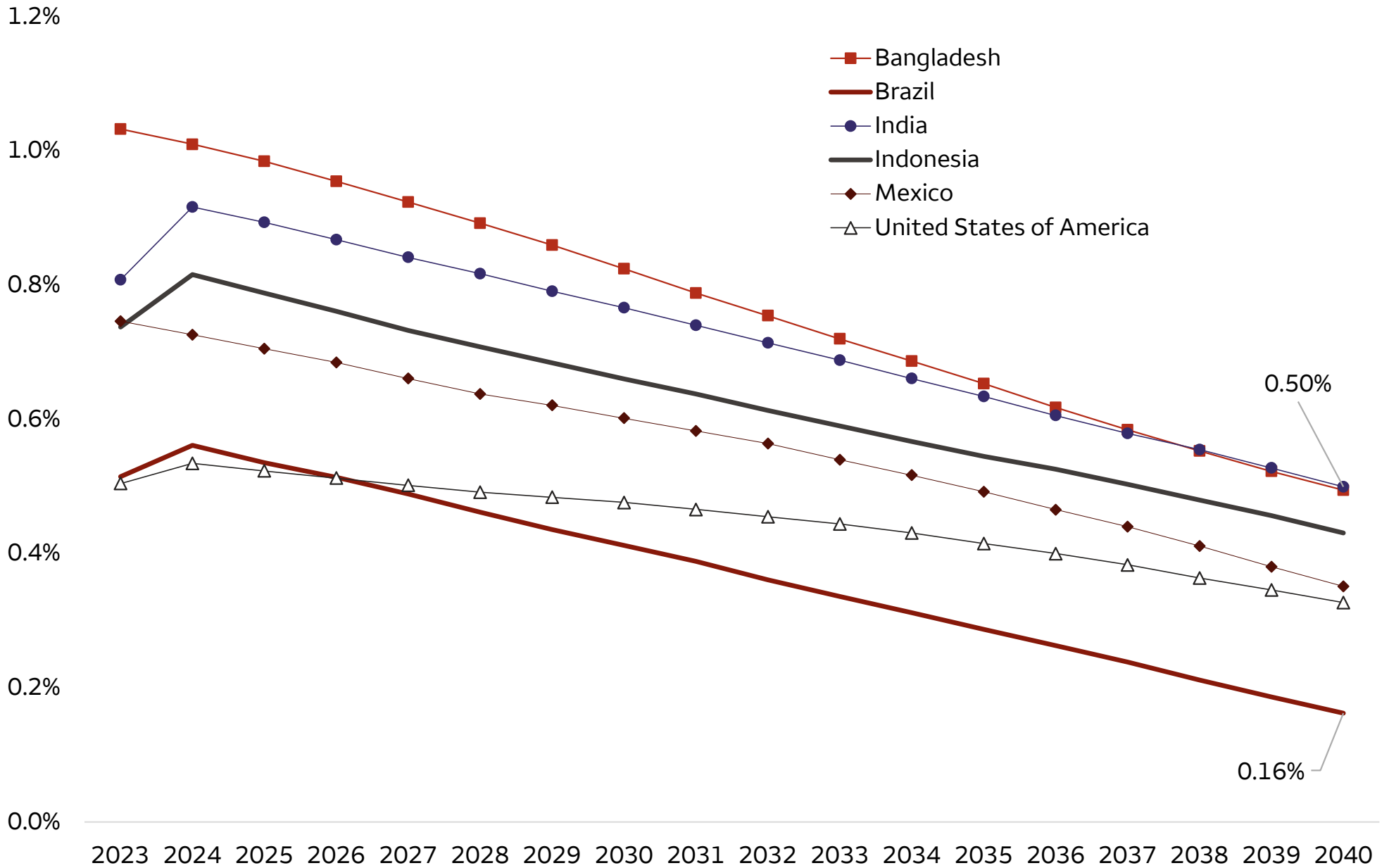
## Year over Year Percent Change in Population



Source: FAOSTAT June 2024

# In the middle of the pack.

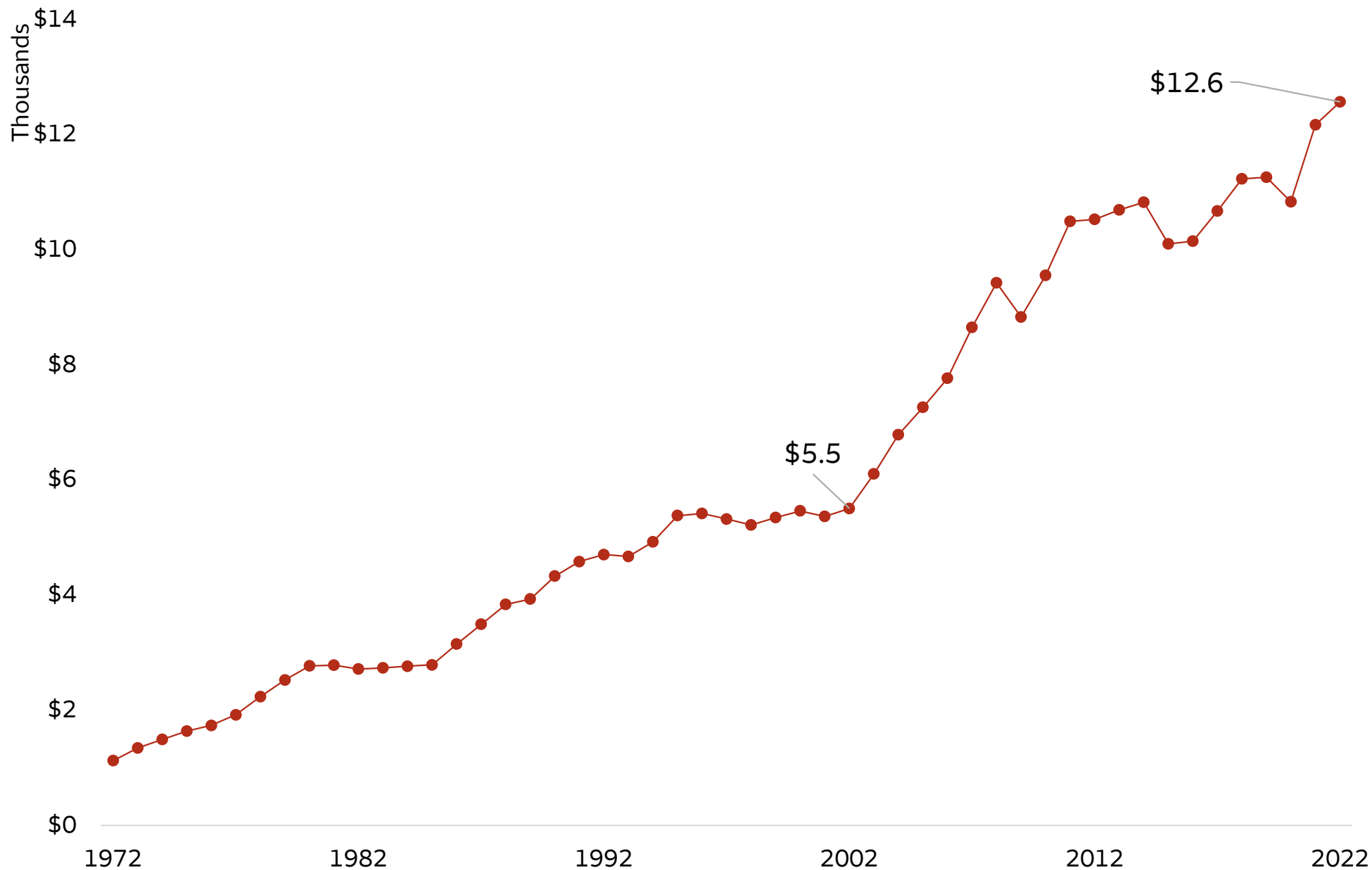
## Mid Range Population Growth Countries



Source: FAOSTAT June 2024

# The biggest lift in this data series came from China.

## Global Per Capita GDP in USD (thousands)



Source: FAOSTAT June 2024

## Top 10 countries by dairy product imports.

Area	Import Quantity	Export Quantity	Net Exports	Share of imports
China	3,402,228	72,329	(3,329,899)	27.0%
Russian Federation	940,365	131,688	(808,677)	6.6%
Philippines	574,711	16,274	(558,437)	4.5%
Mexico	592,237	68,736	(523,500)	4.3%
Indonesia	537,573	38,671	(498,902)	4.1%
Algeria	452,813	179	(452,634)	3.7%
Japan	372,587	24,106	(348,481)	2.8%
Malaysia	450,757	103,239	(347,518)	2.8%
United Arab Emirates	773,552	427,820	(345,731)	2.8%
Republic of Korea	368,085	25,133	(342,952)	2.8%

Source: FAOSTAT June 2024

# Top 10 countries by population with dairy consumption.

Food Group	Milk and milk products					
Indicator	Protein supplied					
Element	Value					
Unit	g/cap/d					
Grams per Day of Milk Protein Utilized						
Average of Value	Year					
Area	2018	2019	2020	2021	Population in Millions	Per Capita GDP in USD
Bangladesh	2	2	2	2	175	\$ 2,529
Brazil	13	14	14	14	218	\$ 8,698
China, mainland	3	3	3	3	1,457	\$ 12,537
Ethiopia	3	3	4	3	130	\$ 964
India	10	10	11	11	1,442	\$ 2,462
Indonesia	1	2	1	2	280	\$ 4,786
Japan	7	7	7	7	123	\$ 33,694
Mexico	10	10	10	10	129	\$ 11,091
Nigeria	1	1	1	1	229	\$ 2,174
Pakistan	17	18	18	18	245	\$ 1,386
Russian Federation	15	16	16	16	144	\$ 14,992
United States of America	23	23	23	23	342	\$ 75,269
*Source FAOSTAT June 2024						

# Big countries and/or big supplies?


- Some countries have more natural supply resources.
  - Feed supply.
  - Agricultural intensity/historical focus
  - Agronomic factors
- Some countries have higher support levels.
- There is a huge gap in animal productivity.

It's logical to expect more growth from low labor cost countries.

Area	Import Quantity	Export Quantity	Net Exports	Share of exports
European Union (27)	21,439,719	24,538,862	3,099,143	27.5%
New Zealand	34,541	3,035,913	3,001,372	26.6%
United States of America	295,597	2,266,004	1,970,407	17.5%
Belarus	8,646	978,607	969,961	8.6%
Australia	229,711	787,459	557,748	4.9%
Argentina	7,403	321,104	313,701	2.8%
Saudi Arabia	429,833	723,969	294,137	2.6%
Uruguay	14,725	216,309	201,584	1.8%
Türkiye	18,777	175,566	156,789	1.4%
Iran (Islamic Republic of)	10,437	150,786	140,349	1.2%

Source: FAOSTAT June 2024

The USA is running 4-minute mile pace.

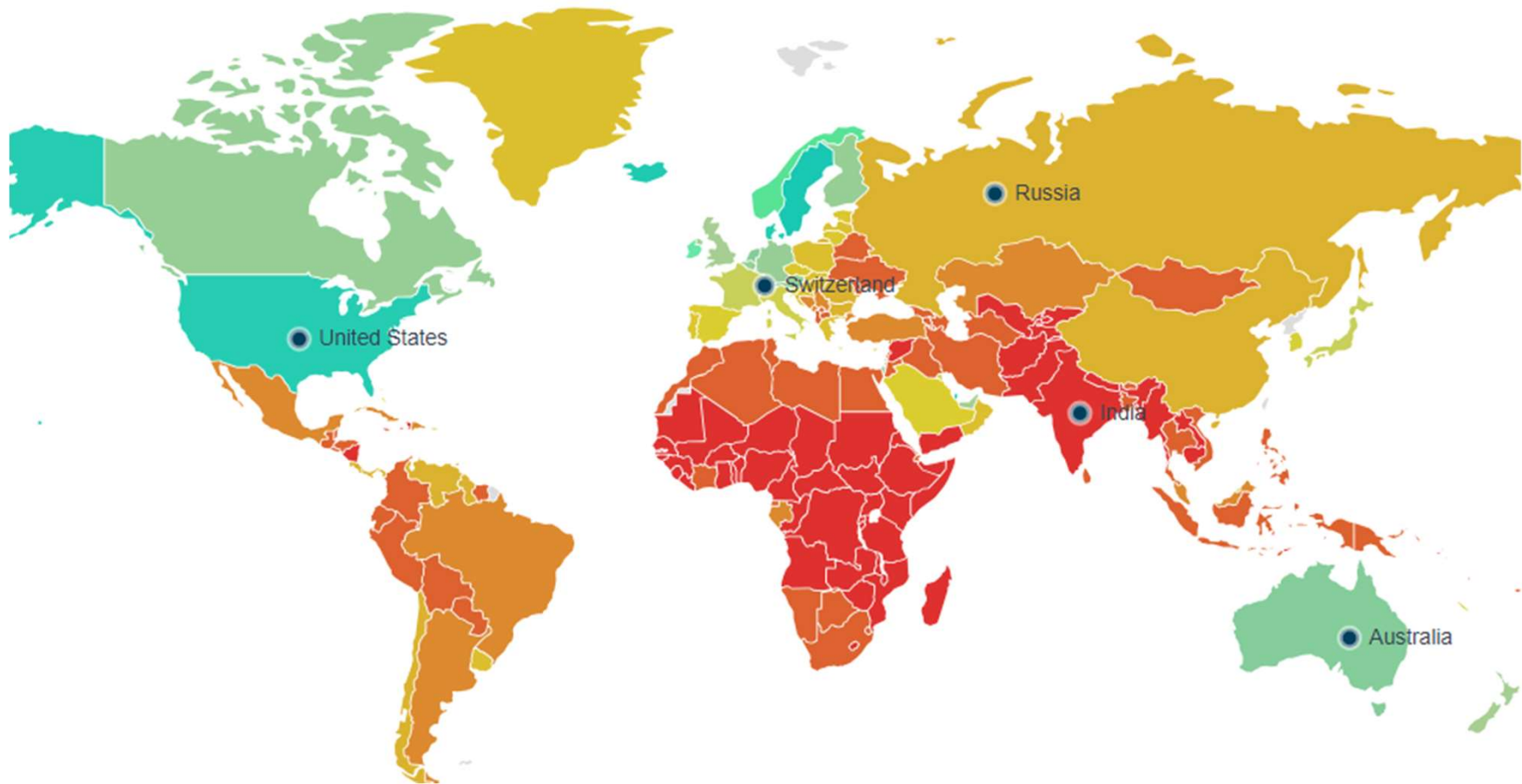
Area	 An	t	100 g/An	Pct USA Yield
Argentina	1,563,134	11,904,142	76,156	70%
Australia	1,339,506	8,450,000	63,083	58%
Belarus	1,447,300	7,871,000	54,384	50%
<b>China</b>	<b>12,240,989</b>	<b>36,076,655</b>	<b>29,472</b>	<b>27%</b>
European Union (27)	20,073,770	153,625,280	76,530	70%
Iran (Islamic Republic of)	2,219,000	7,497,000	33,785	31%
Mexico	2,678,454	13,497,999	50,395	46%
New Zealand	4,724,208	21,051,000	44,560	41%
Türkiye	7,135,756	19,912,135	27,905	25%
United States of America	9,377,000	102,721,557	109,546	
Uruguay	682,000	2,286,703	33,529	31%

Source: FAOSTAT June 2024



We are running the 4 minute mile wearing a 50 lb. pack.

The U.S. has the highest wage rate in the world.



Source: Worlddata.info June 2024

# General disclosures

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