



Macroeconomic Assumptions 2021-2031 & “What-If” Scenario on Reduced Fats Consumption

Giampiero Genovese

Ignacio Pérez Domínguez, Thomas Chatzopoulos, Christian Elleby (EC-JRC)

EU Agricultural Outlook Conference, 9-10 December 2021, <https://www.agri-outlook-conference.eu/>

Contents

1st PART: MACROECONOMICS ASSUMPTIONS

- Energy prices
- Exchange Rates
- GDP growth
- Population
- Consumer Prices

2nd PART: WHAT-IF SCENARIO ON REDUCED FATS CONSUMPTION

- WHO recommendations
- Impacts on Agricultural Markets

Contents

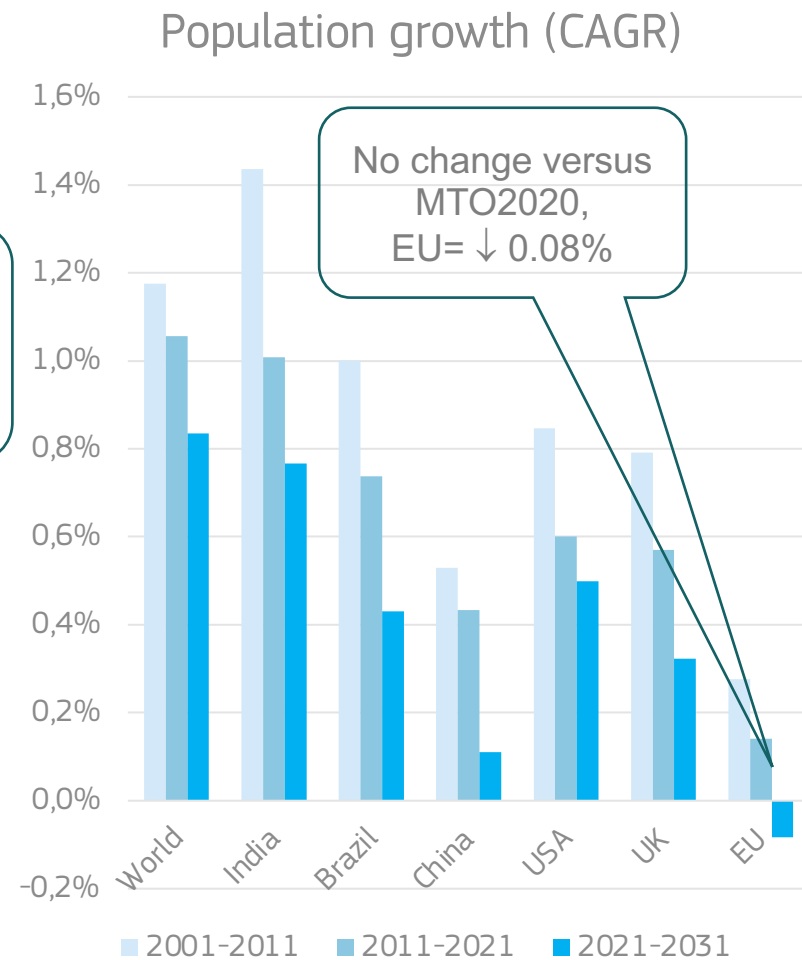
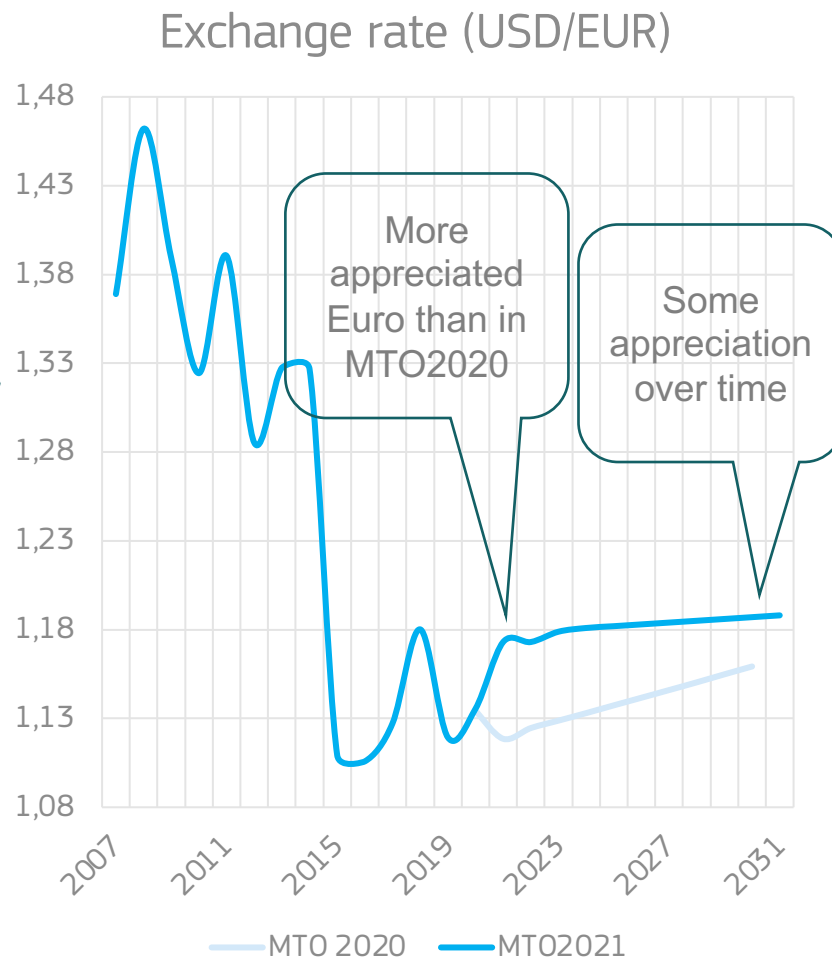
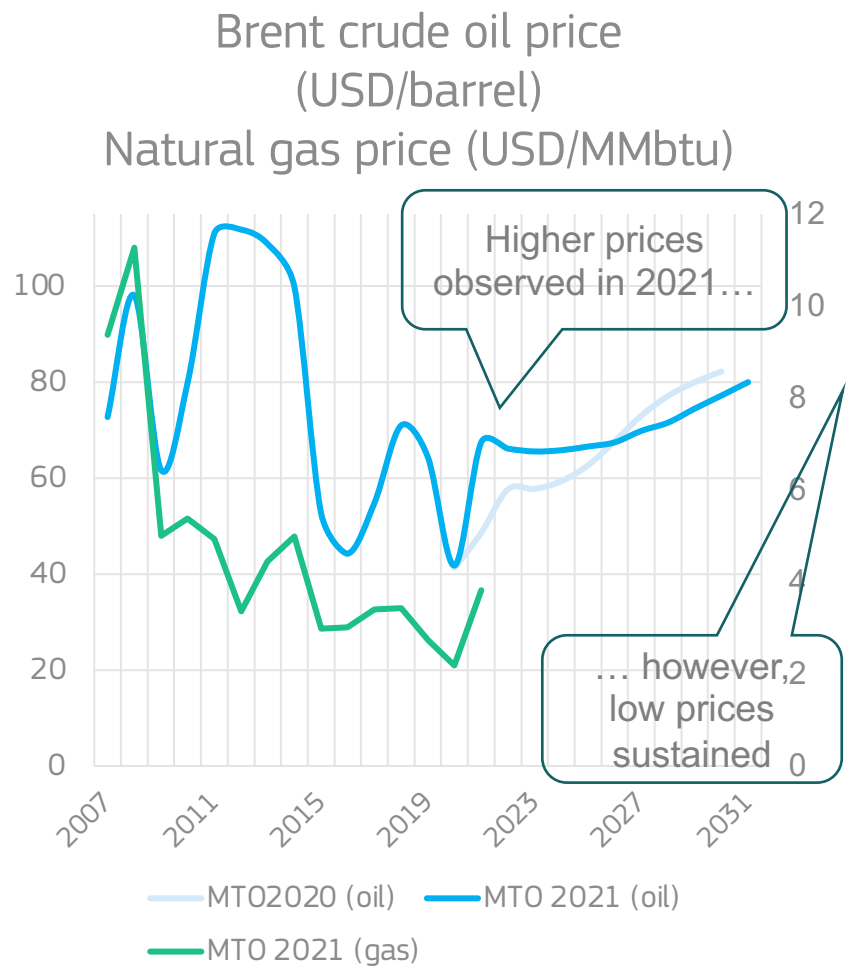
1st PART: MACROECONOMICS ASSUMPTIONS

- Energy prices
- Exchange Rates
- GDP growth
- Population
- Consumer Prices

2nd PART: WHAT-IF SCENARIO ON REDUCED FATS CONSUMPTION

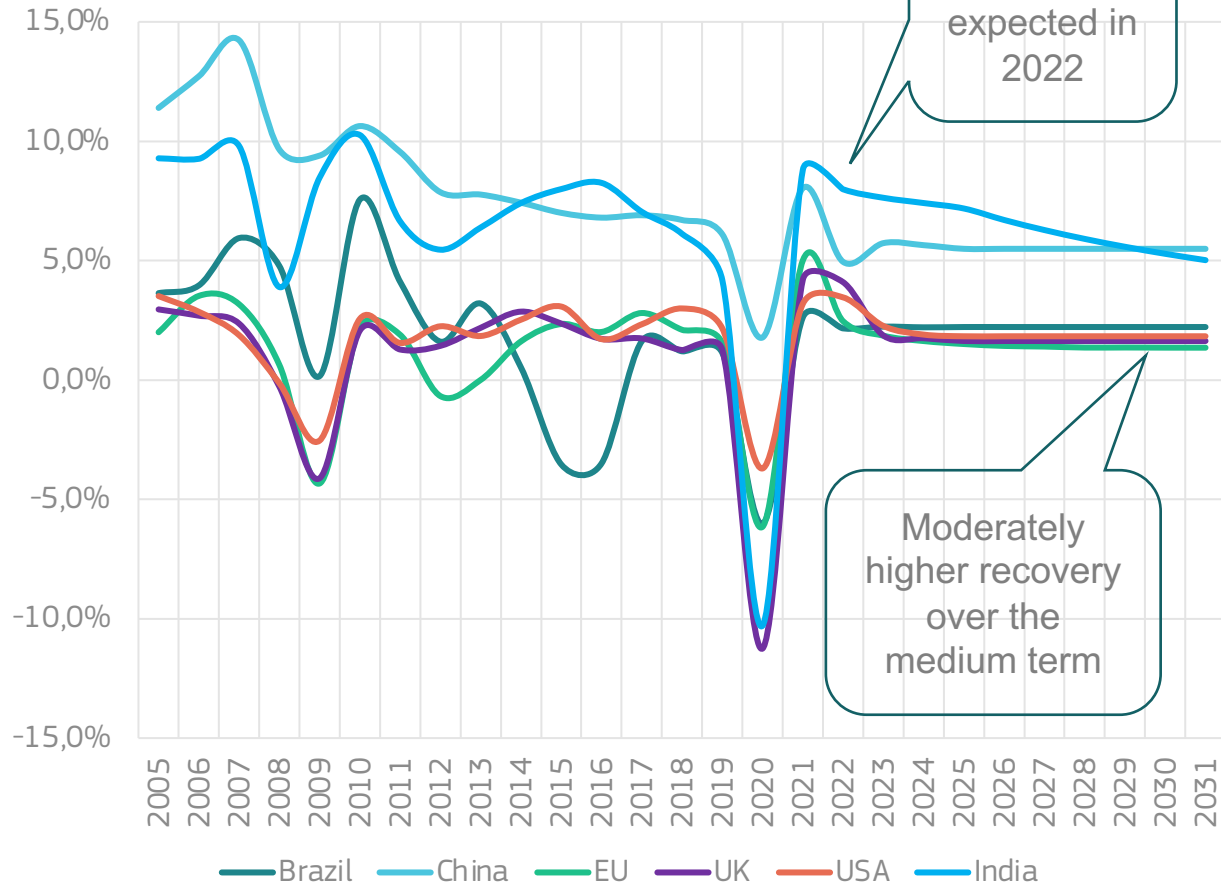
- WHO recommendations
- Impacts on Agricultural Markets

Energy, exchange rate, population

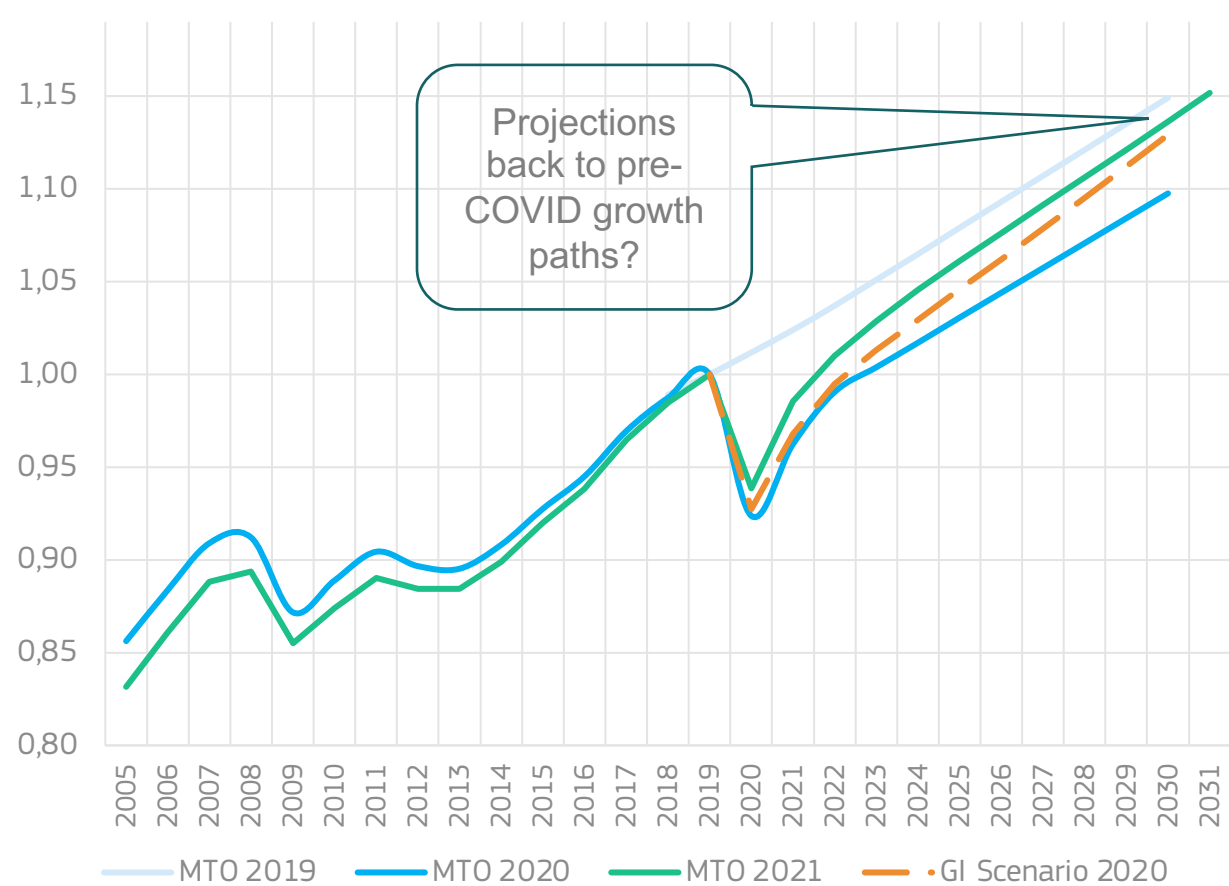


Gross domestic product

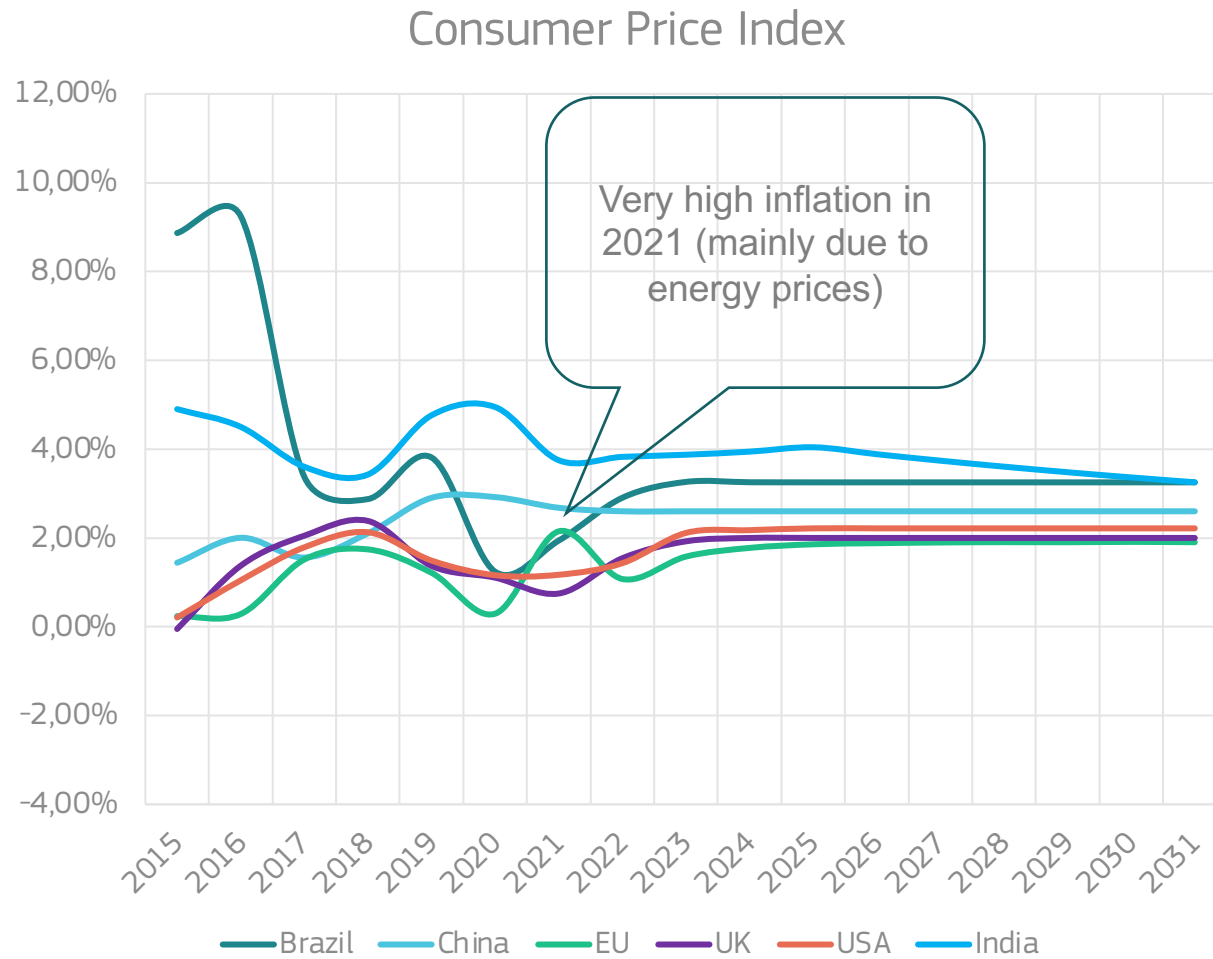
Real GDP growth



Real GDP in EU (index 2019 = 1)



Price developments



Contents

1st PART: MACROECONOMICS ASSUMPTIONS

- Energy prices
- Exchange Rates
- GDP growth
- Population
- Consumer Prices

2nd PART: WHAT-IF SCENARIO ON REDUCED FATS CONSUMPTION

- WHO recommendations
- Impacts on Agricultural Markets

Motivation

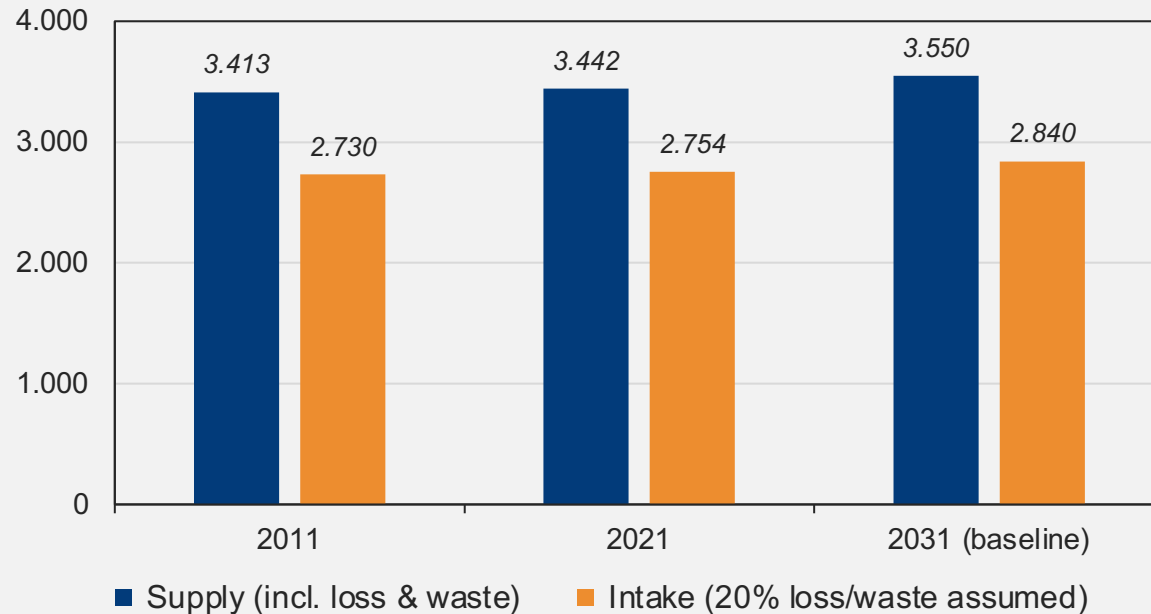
- A healthy diet protects against heart disease, diabetes and cancer
- Consuming less fat, sugar and salt is essential for a healthy diet
- High fat consumption increases the risk of heart disease, stroke and obesity, which is why *“total fat should not exceed 30% of total energy intake”*



What if the EU gradually reduced consumption of fats over the next decade from the level projected (35.4%) to 30%?

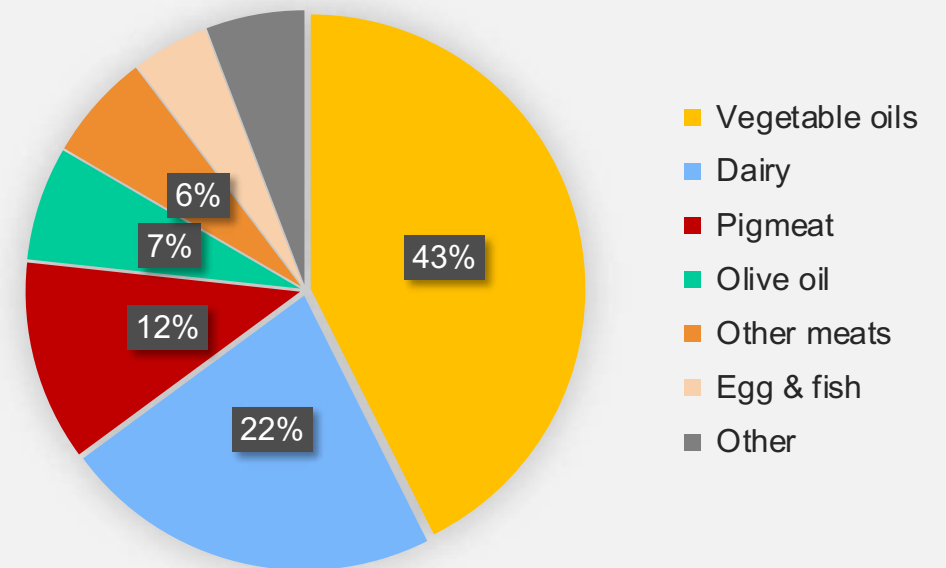
Background

Daily per-capita calories



- Conversion of food use into calorie supply
- Decomposition of calorie supply into macronutrients (carbohydrates, fat, protein)
- Food loss and waste embedded in calorie supply
- FBS (2013-18) and literature-based weights

Baseline daily per-capita calories from fats (2031)

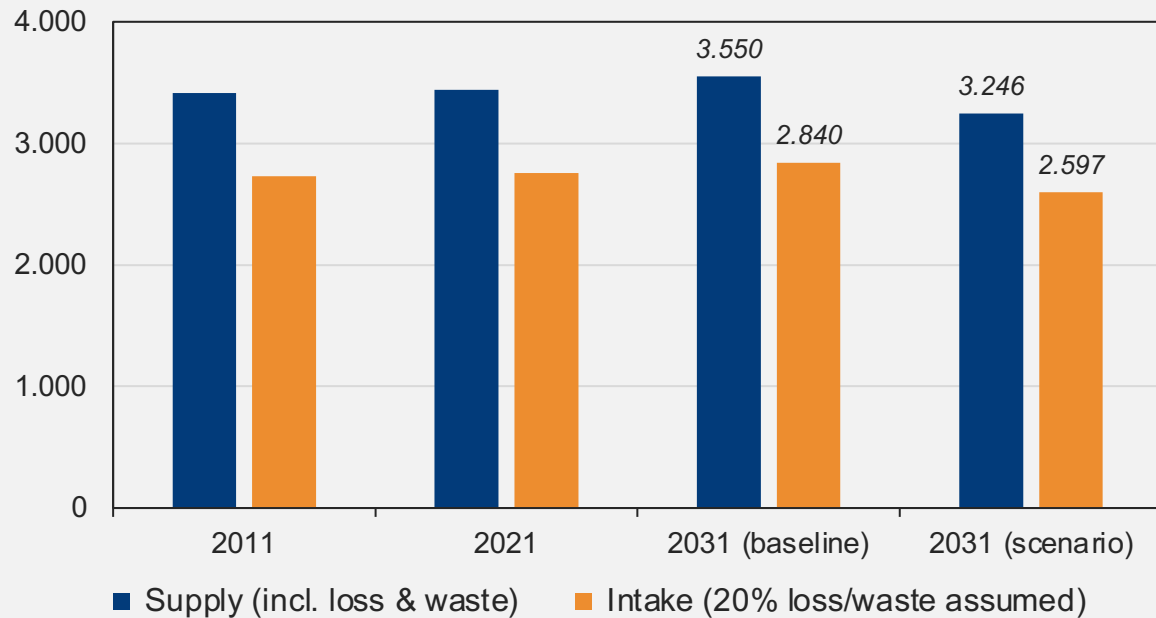


Baseline fats (2031) account for

- 1,259 kcal/person/day of calorie supply
- 1,009 kcal/person/day of calorie intake
- 35.4% of all calories vs. 30% (WHO-recommended)

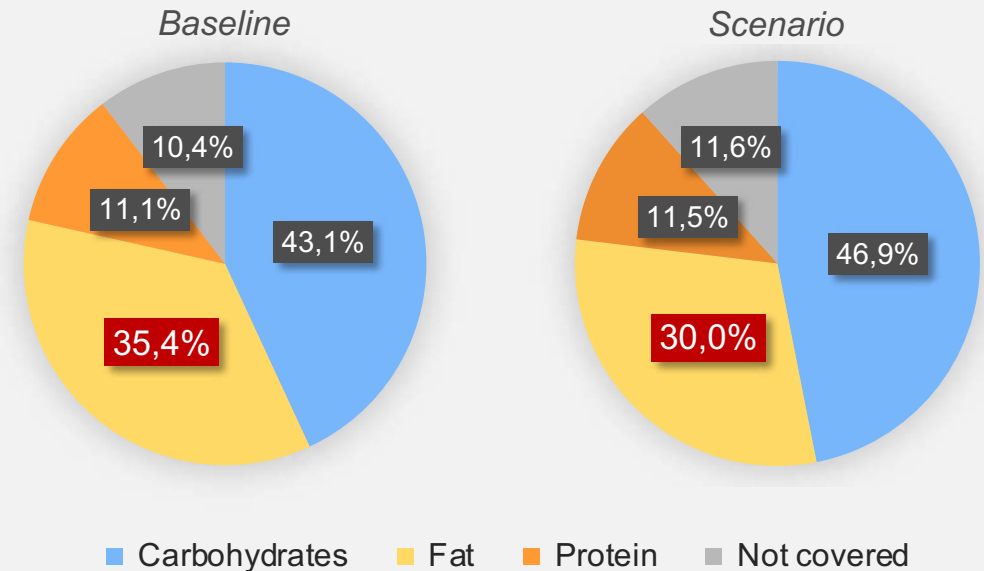
Results

Daily per-capita calories



- Daily calorie supply drops by 304 per person (-9%)
- 91% of the reduction attributed to fats

Decomposition of daily per-capita calorie supply into macronutrients (2031)

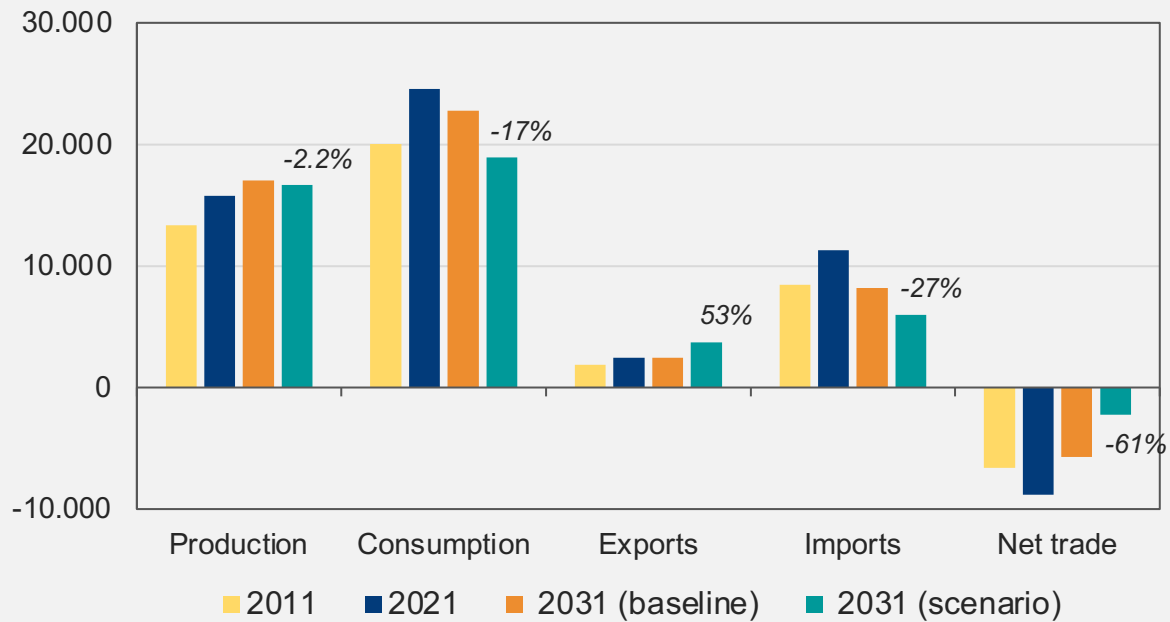


- Fats drop by 278 kcal/person/day
- Protein and carbs drop by 26 kcal/person/day in total
- Calories from commodities not covered are assumed constant (360 kcal)

Results

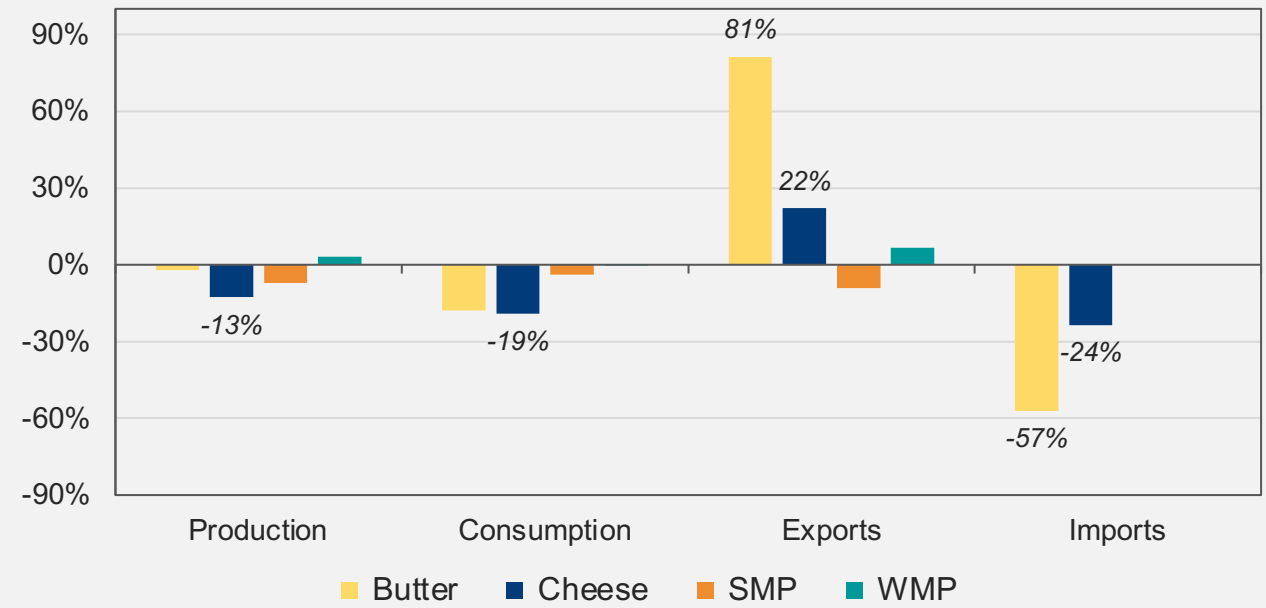


Vegetable oils (1,000 t)



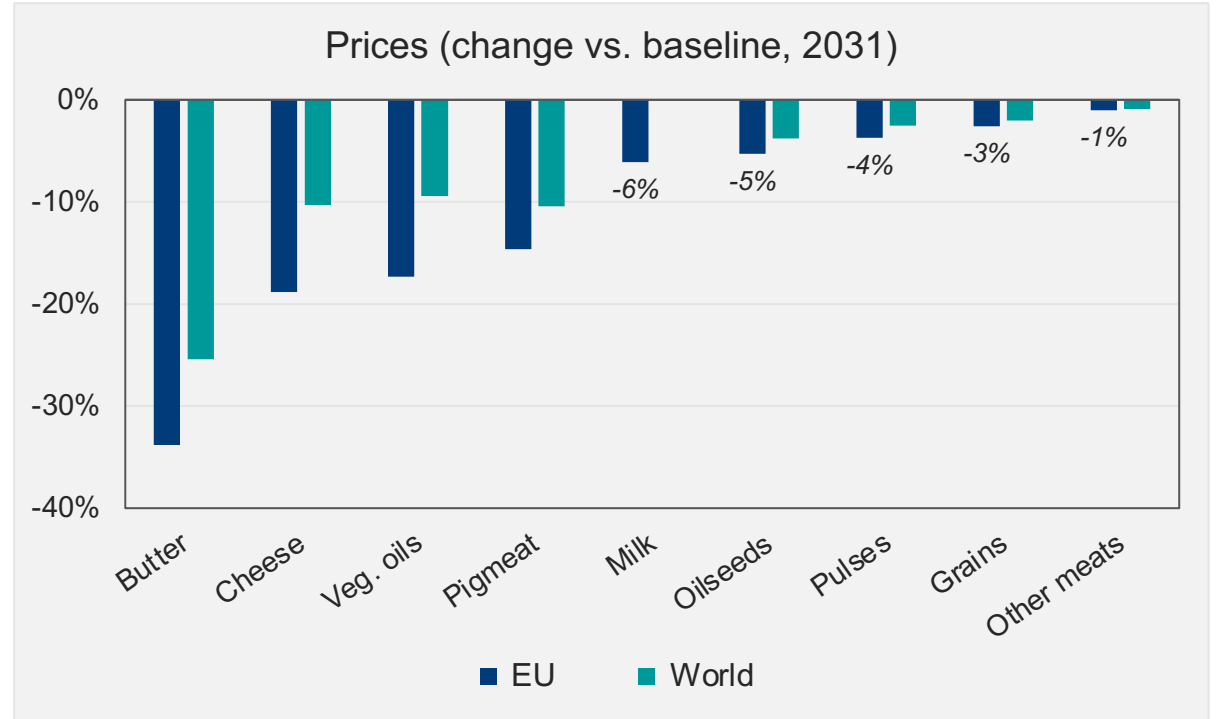
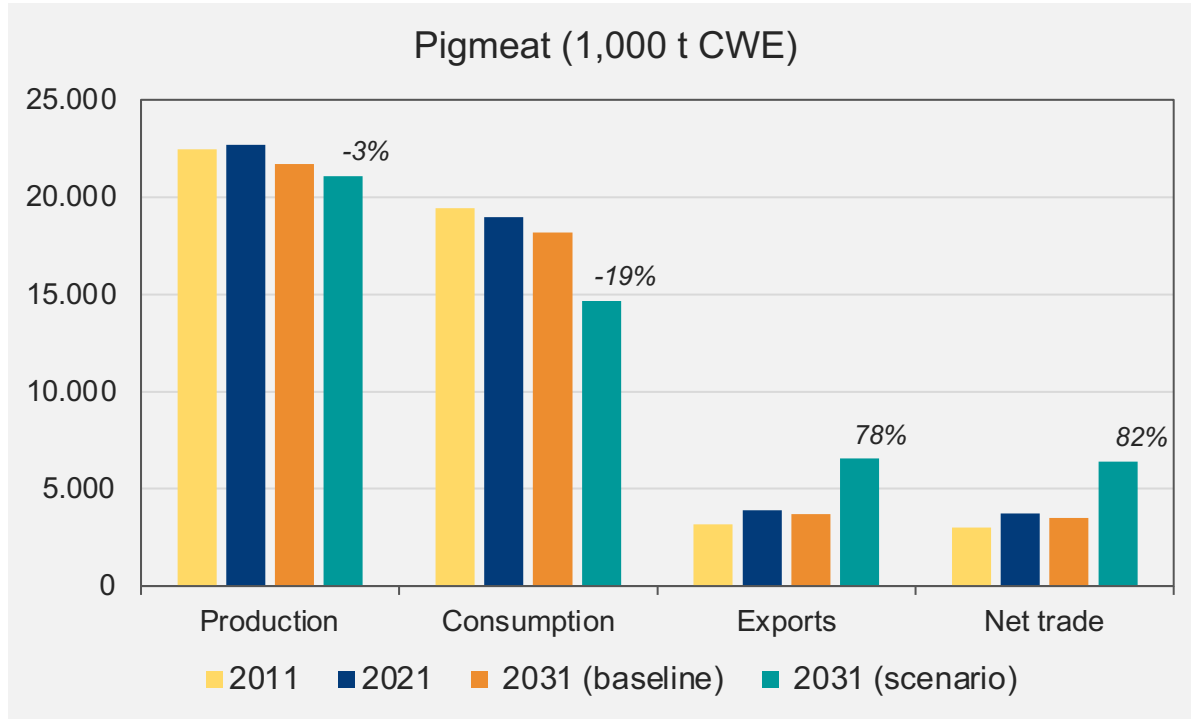
- EU becomes a net exporter of sunflower oil in 2031

Dairy products (change vs baseline, 2031)



- Lower milk production (-2%) and price (-6%)
- Lower EU dairy herd (-2.5%)
- Lower agricultural emissions (-1.2% or -4 Mt CO2eq)

Results



Concluding remarks

- Lower consumption of fat in the EU would lower prices and benefit medium-term trade balances without compromising domestic production (down to -13%; case of cheese) and calorie supply to a large extent
- EU agricultural emissions would fall by 1.2% (4 Mt CO₂eq) in 2031



Thank you

Contact: giampiero.genovese@ec.europa.eu

Disclaimer

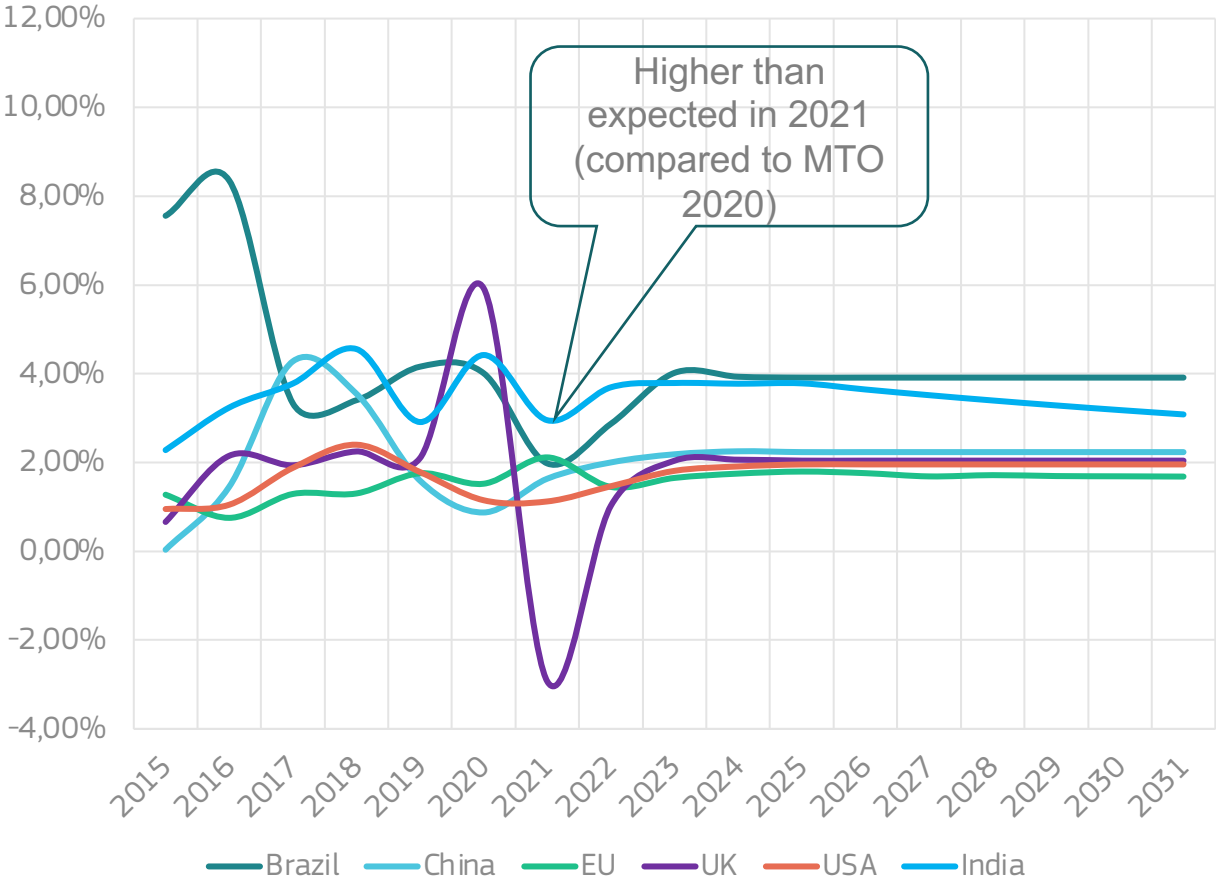
The views expressed herein are purely those of the authors and do not necessarily reflect the official views of the European Commission or any other international organizations.

Assumptions

1. Demand for fattier food will autonomously and gradually drop
 - Cheese, butter, fresh dairy products and pigmeat: ↓18% by 2031
 - Vegetable oils: ↓36% by 2031
2. No distinction between fats (saturated/unsaturated) or meat cuts
3. No ad hoc compensation in calories or macronutrients
4. Some markets are only partially covered (e.g., olive oil, seafood)
5. No dietary shift assumed for the rest of the world
6. Baseline: OECD-FAO 2021-30 Outlook, July 2021

Price developments

GDP Deflator



Consumer Price Index

