

How can poultry farming systems evolve to meet the major societal and environmental challenges?

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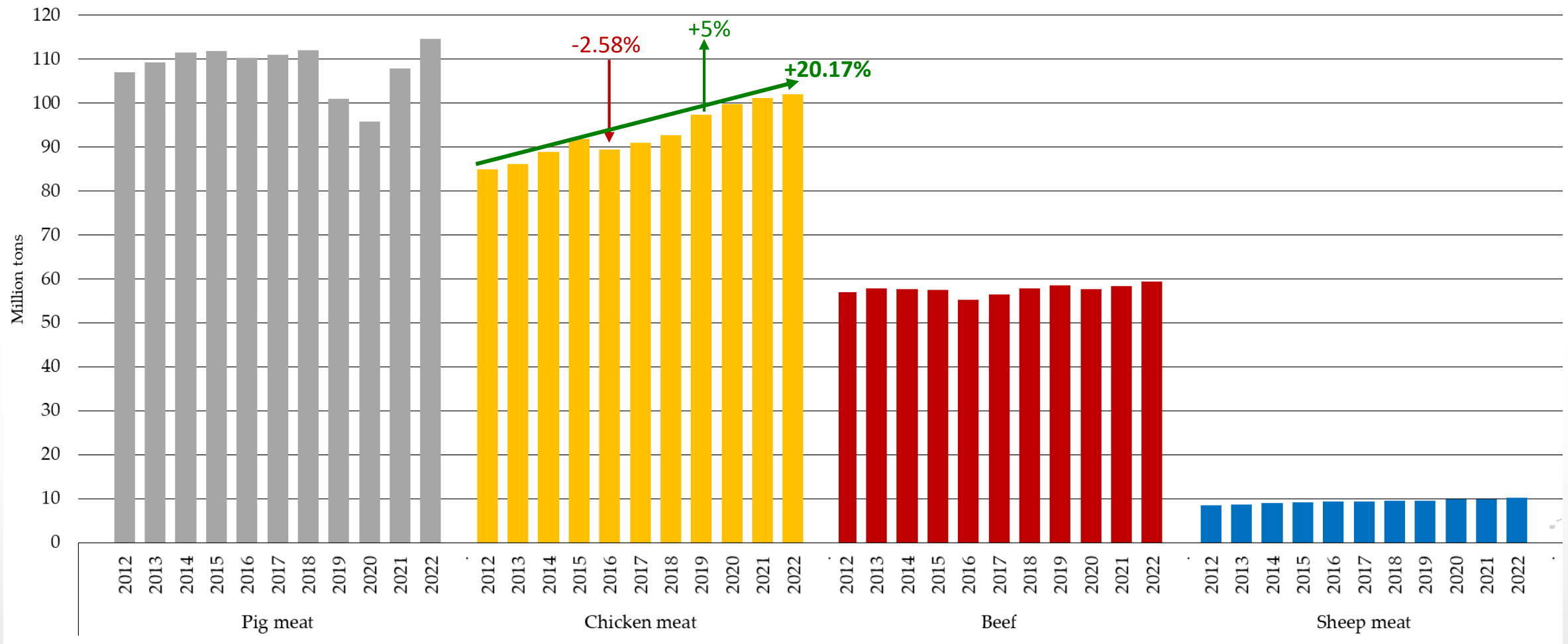


Contents

- Short overview through the global meat market
- Economic efficiency
- Sustainable production systems

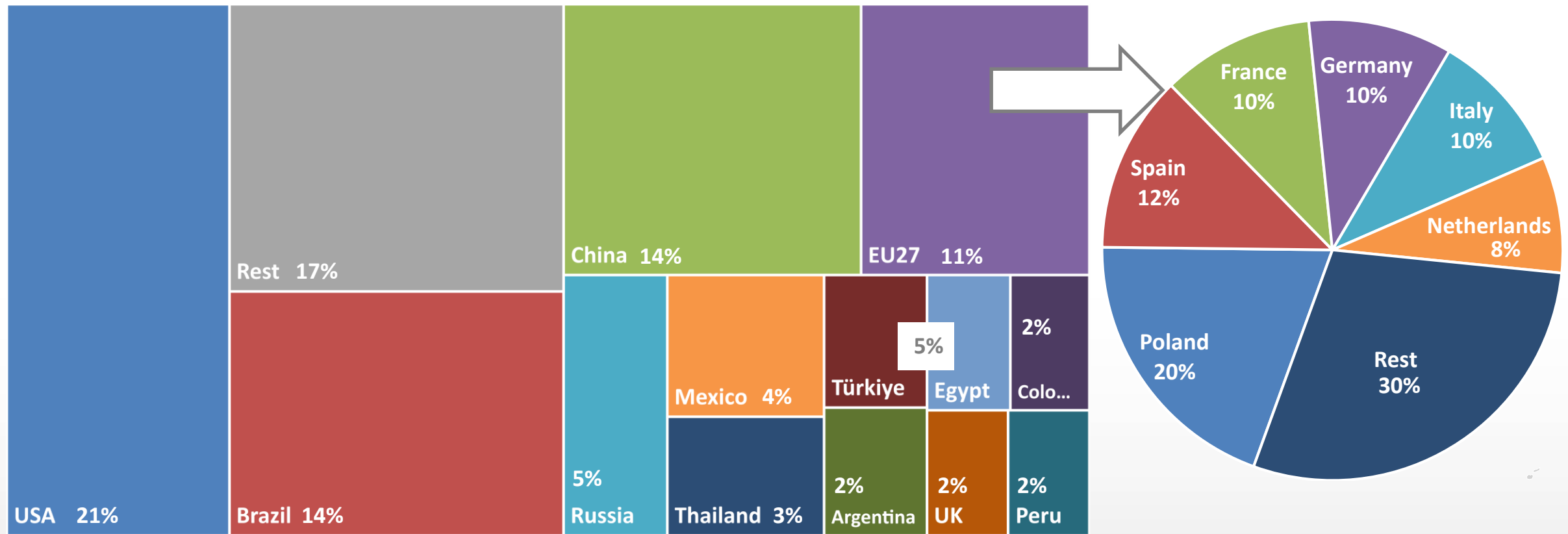
World meat production 2012 – 2022

Slower growth in chicken meat production in '21 & '22



Source: PSD/FAS/USDA 06/2023

Key producers of chicken meat 2022

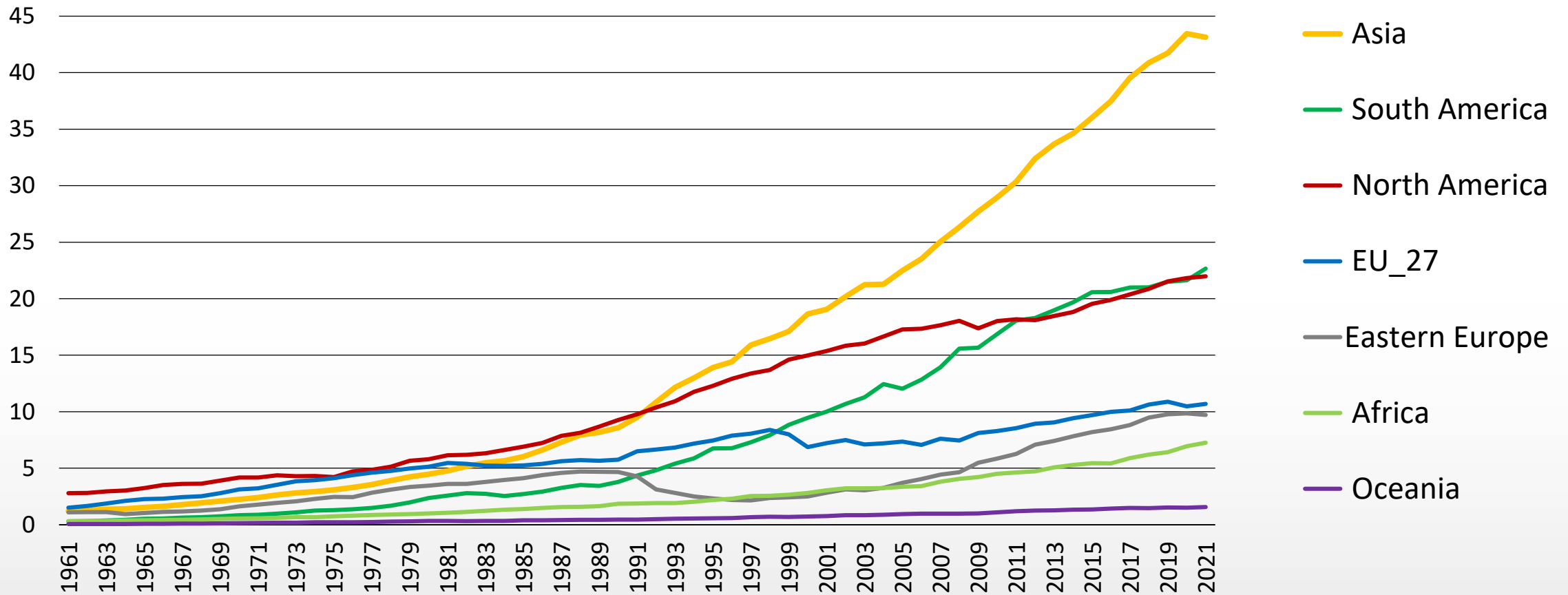


Source: PSD/FAS/USDA 06/2023

Asia leading the production growth

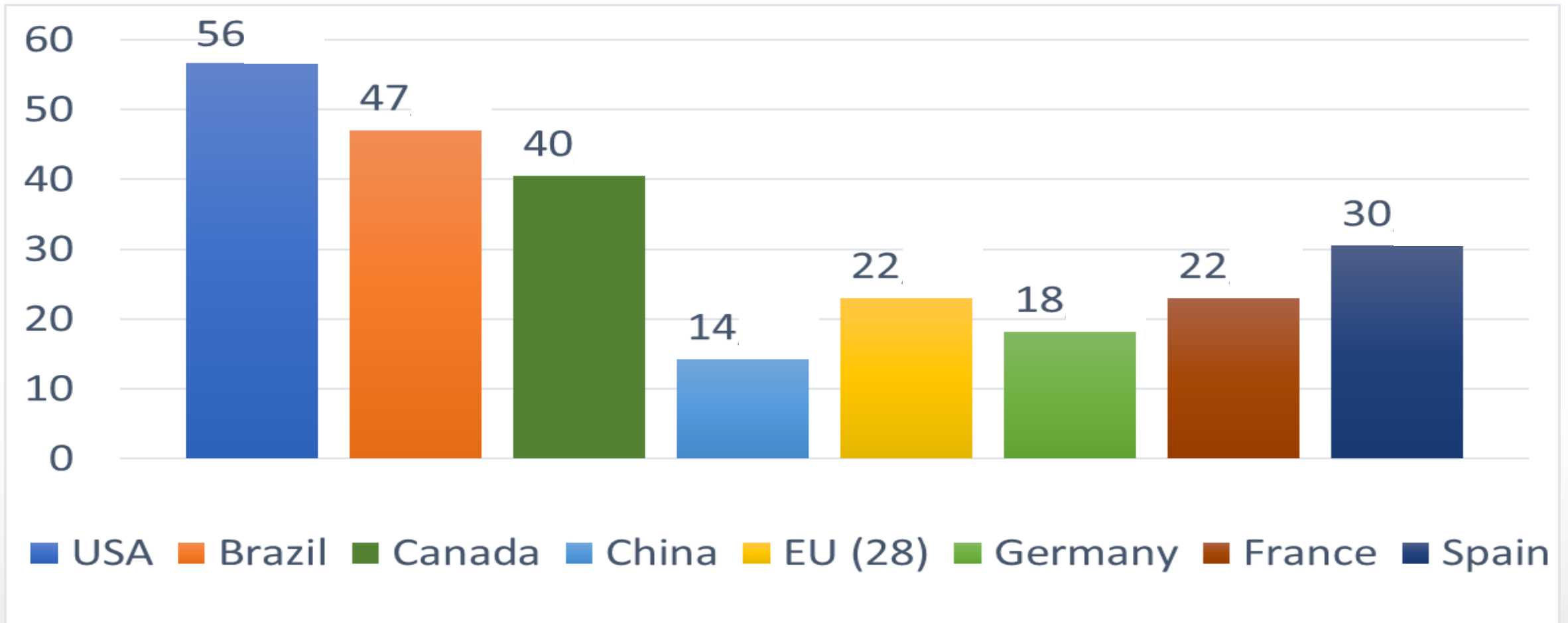
S. America overtakes N. America?

Development of chicken meat production, million tons



Source: FAOStat 06/2023

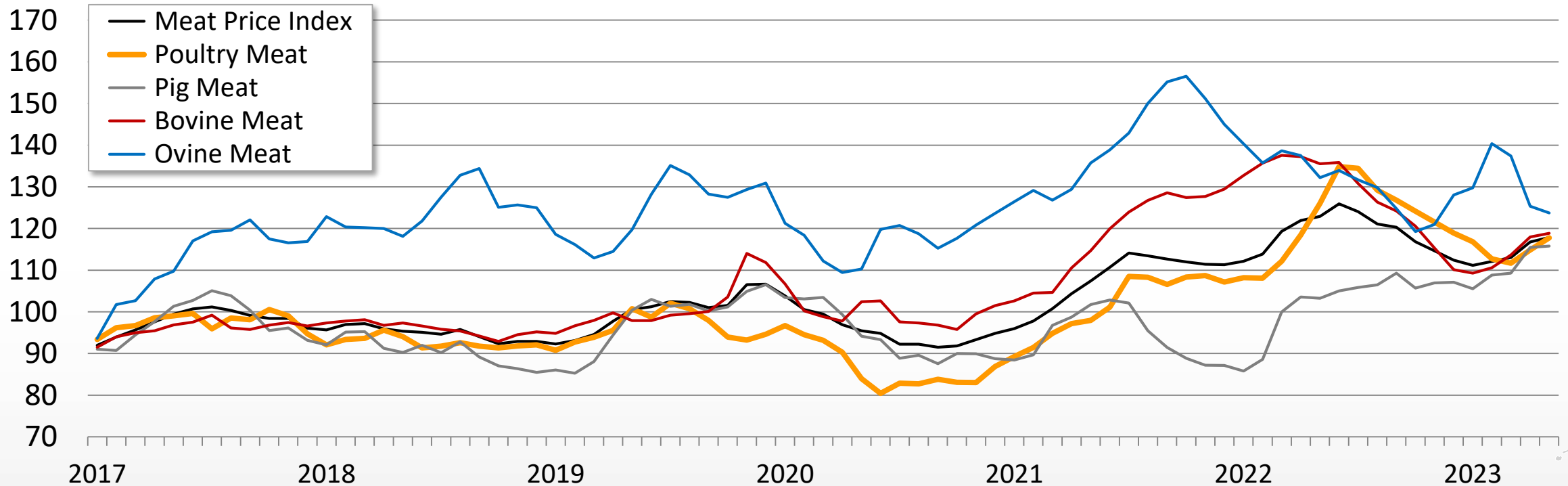
Poultry meat consumption 2018 (kg/capita/year)



Source: Efken, J., 2021

Poultry meat index still above pre-Corona levels

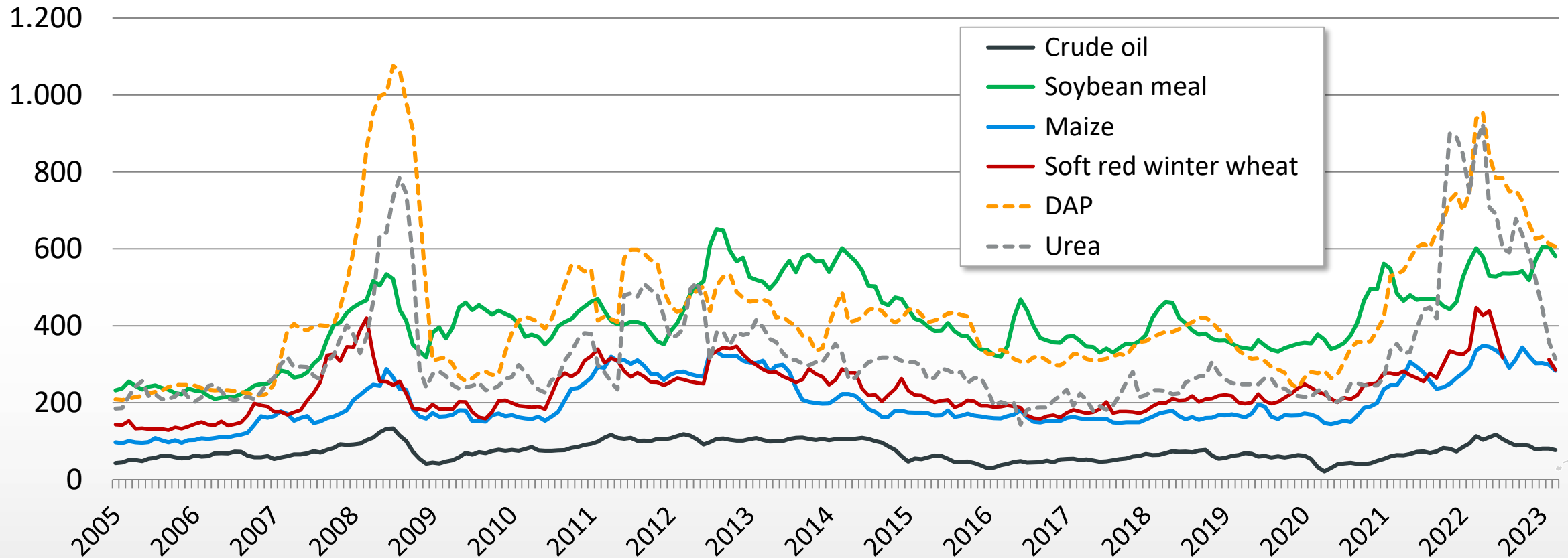
FAO meat price indices based on USD per ton prices (export prices) (until 05.23)



Source: FAO Meat price index
http://www.fao.org/fileadmin/templates/est/COMM_MARKETS_MONITORING/Meat/Documents/FAO_MeatPriceIndices_totalseries.xls

Significant fluctuations in input prices - Input prices significant decrease except soy

USD per ton (until 05.23)



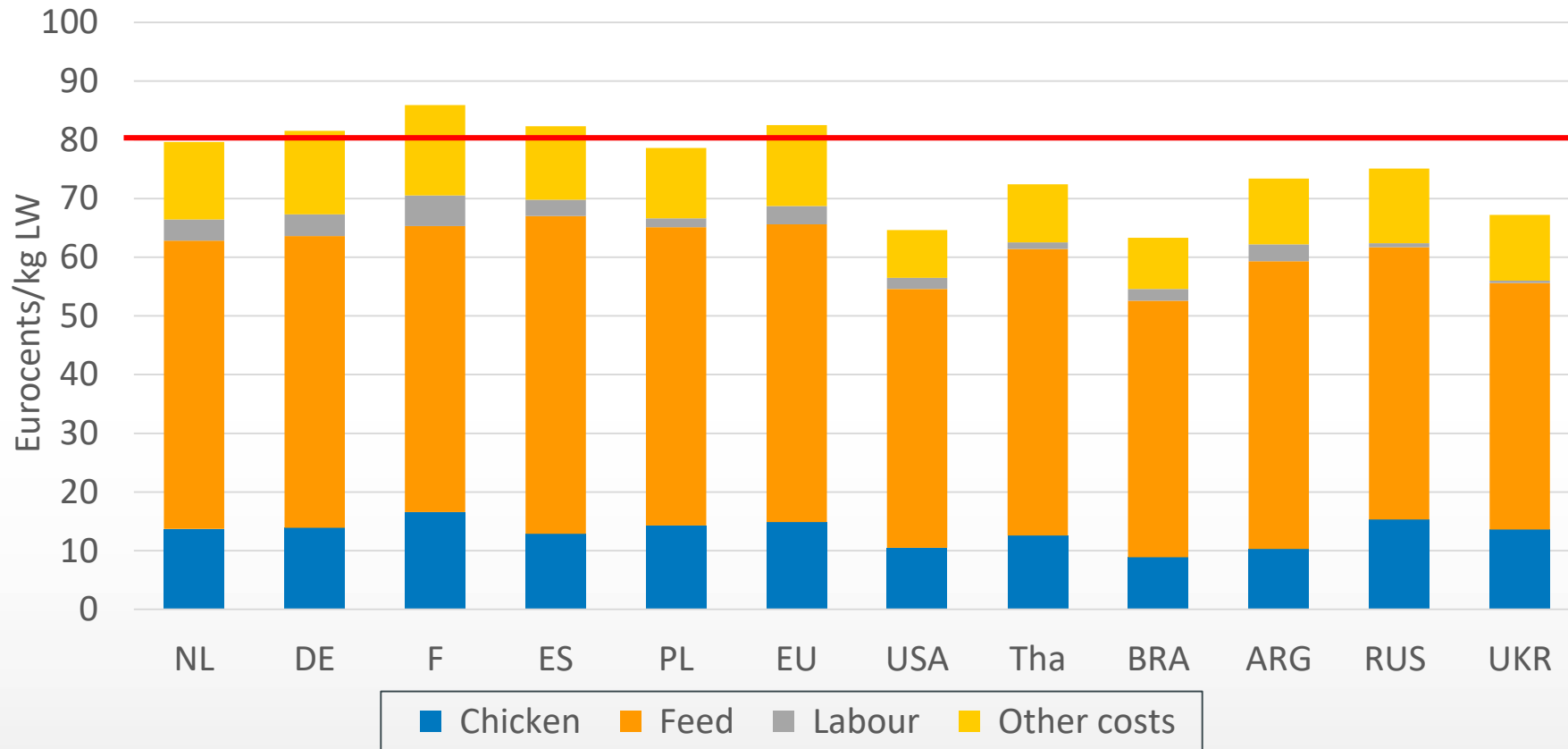
Source: The World Bank Pink Sheets

<https://thedocs.worldbank.org/en/doc/5d903e848db1d1b83e0ec8f744e55570-0350012021/related/CMO-Historical-Data-Monthly.xlsx>

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Costs of broiler production (2017)



Differences with impact on production costs:

- Availability of feed ingredients (feed price)
- Climate (energy input)
- Labour costs (processing)
- Exchange rates
- Government policy (feed prices)
- Regulations (EU)

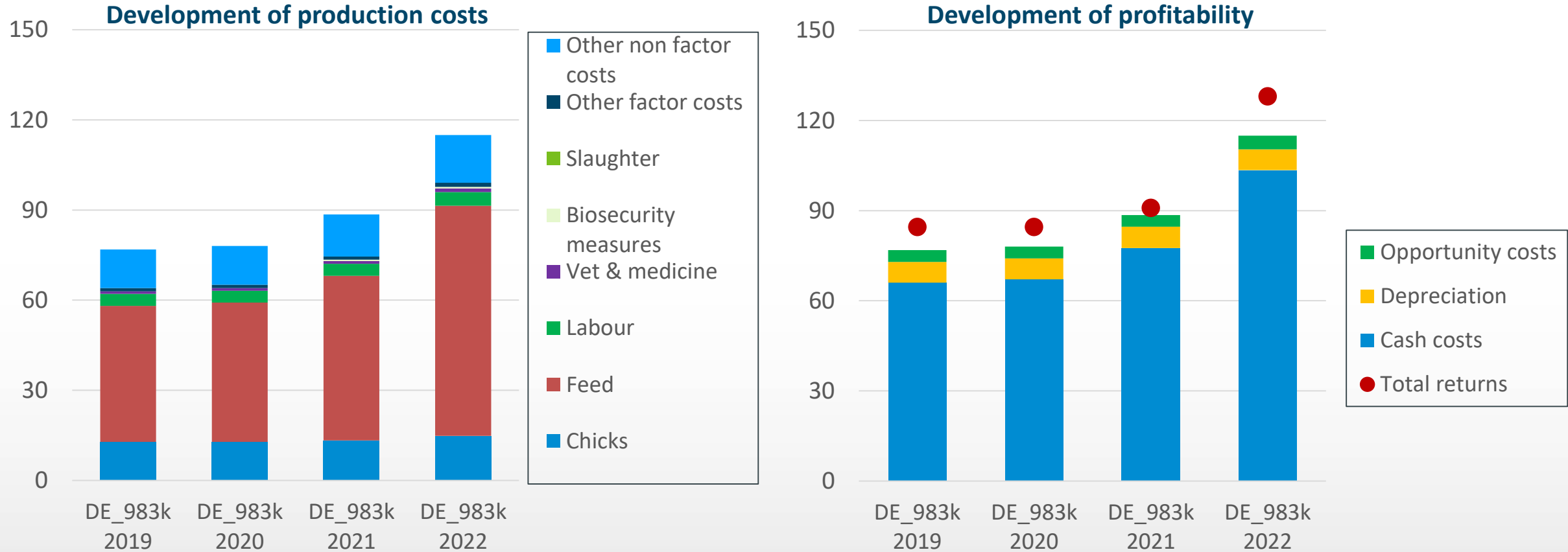
Source: van Horne (2017): Competitiveness of the EU poultry meat sector, base year 2017,

https://www.avec-poultry.eu/wp-content/uploads/2018/12/WUR-report-2018-116-Competitiveness-EU-poultry-meat-PvanHorne_def.pdf

Developments in costs and returns for a typical German broiler farm

Costs and returns developments in Germany, 2019-2021 (Euro /100 kg live weight)

COVID-19 aftermath & rising inflation → higher feed prices and energy costs



Source: Own survey and calculations (2022)

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Rational

Barn

Free Range

Mobile Housing

Integration of the main components of sustainability:

- People (social dimension)
- Planet (environment)
- Profit (economics)
- Ensuring this in poultry production will contribute directly to SDG 12



Broiler production indicators:

- Animal Welfare
- Food safety: Use of Antibiotics
- Environment: use of feed and energy
- Climate: carbon footprint
- Economics: production cost, consumer price

Place/Animal

Biosecurity

Biosecurity

Rearing male chicks from laying strains, slow growing breeds, ...

Recent EU-developments EU

- Tighter EU regulation on animal welfare, environment and food safety
- NW Europe: Attention for animal welfare in countries, national legislation above EU level
- Retail / supermarkets take the lead (e.g. Lidl, Netto)
- Specific future developments:
 - Layers: cage free
 - Broilers: slow growing broiler, dual purpose breeds (organic production)

Netto



Lidl



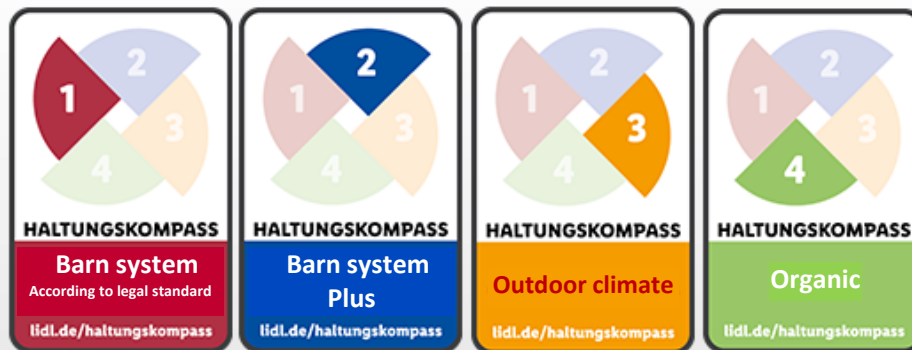
Rational

Where do we stand in Germany today?

- Intensive system: major weaknesses, massive criticism
- Alternative systems: also major weaknesses
- Triple risk for farmers: justice, politics, market



Will the new animal-welfare label (AWL) lead to a better future?



Only partially. Many poultry farmers create cost-effective 2 or 3. Consumer feel great. but: At some point, disillusion

Challenges, approaches and results (Germany)

Challenges

Terrible pictures
Society wants more animal welfare (ethical issues)
Conflict of objectives (environment, animal welfare, social aspects, economics)

Approaches

Regulatory law

- Ban of killing DOC from laying strains
- „TA-Luft (Ammonia /NH₃)“
- “Tierschutznutztierhaltungsverordnung” Animal welfare regulation → Turkeys

“Market solutions”



- (Low) market coverage
- Terrible images do not disappear

Government programs

- Competence network livestock farming (Borchert Commission)
- Voluntary, 3 animal welfare levels+ compensation
- 20 years transition with long-term contracts
- 3-4 billion € per year

Fears/
Results

Conclusions

- Asia is leading the growth of global chicken meat production
- Continued production growth in Brazil, US, China and EU-27
 - Temporary disturbance by covid crisis and Ukraine war.....
- Despite recent decline, prices still above pre-Corona levels
- EU: continued growth rates; focus: marketing fresh meat in the EU market
- Poultry production is highly cost- and price-driven, price disturbances are reflected in production costs
- Sustainability: increasing pressures to develop higher standards, in North West Europe attention on animal welfare
- Ensuring the main components of sustainability in poultry production will contribute directly to SDG 12 which focuses on sustainable production and consumption
- Consequences of ban of killing DOC “for layers” in some EU-countries on broiler production and trade

Thank you for your attention.

Special acknowledgements to WPSA (van Horne) and agri benchmark network (Almadani) for their great support.



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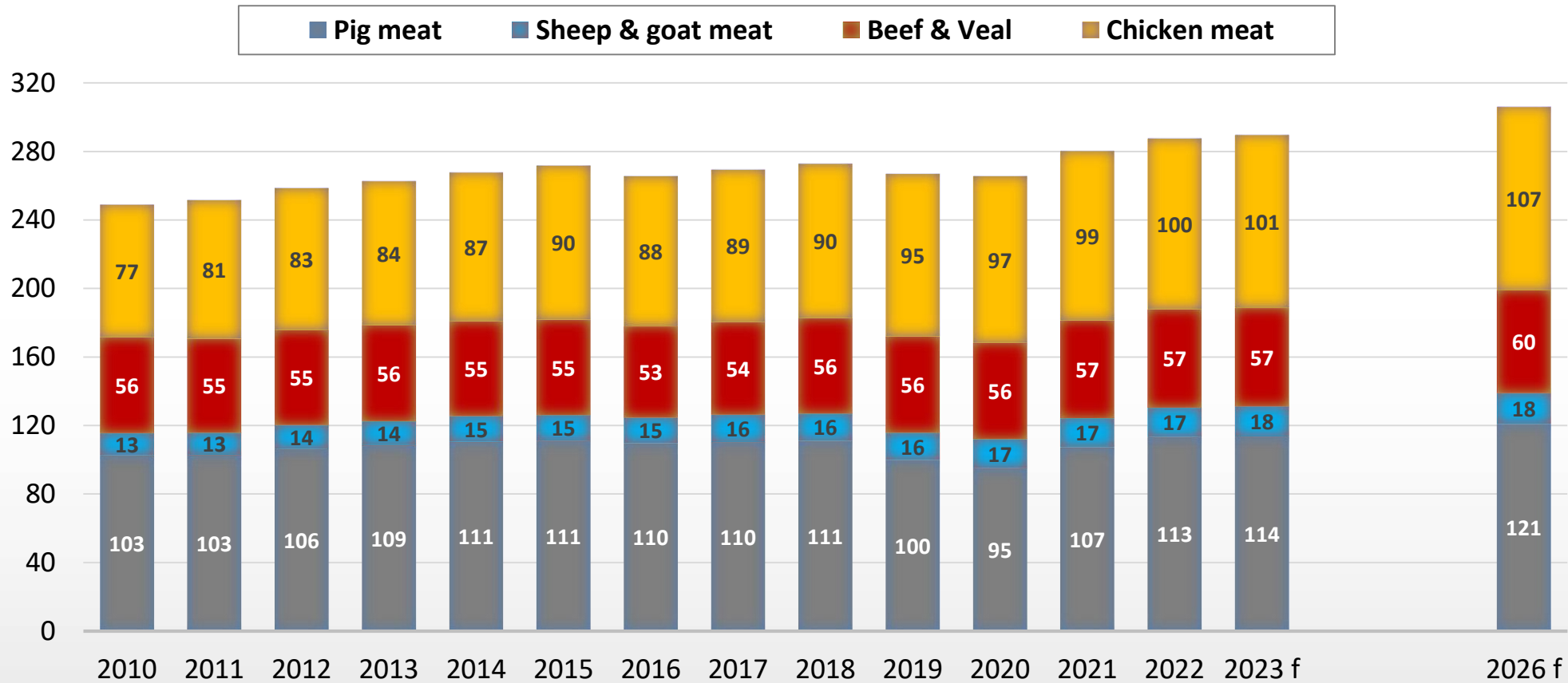
Internet: www.thuenen.de/en/bw/



Discussion

Global meat consumption volume, million t cw

Global meat consumption volume, Million t cw

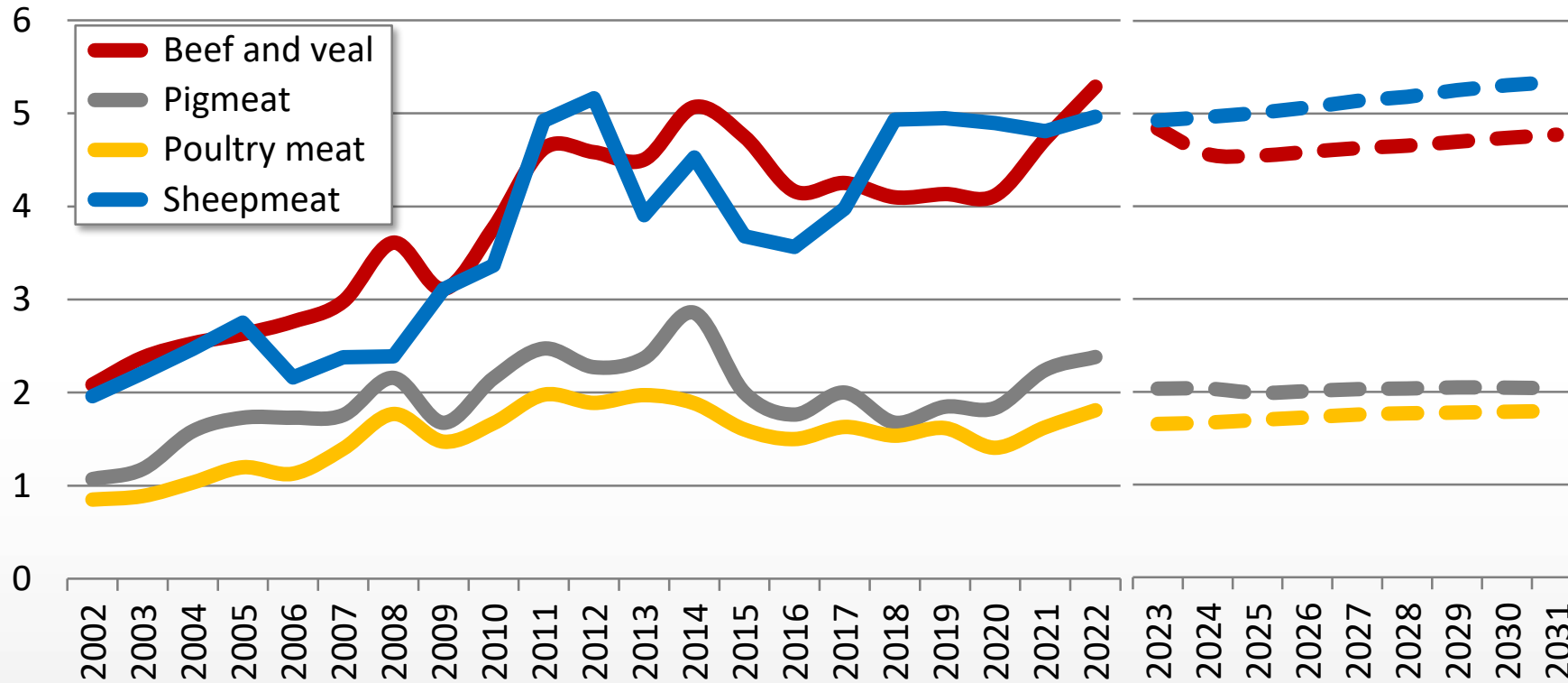


Source: agri benchmark Beef Network, 2023

Discussion

FAO/OECD outlook – meat prices – only sheepmeat promising

1.000 USD per ton



Source: OECD / FAO Agricultural Outlook 2022-2031