

Enhancing sustainability: Inflation and the economics of the green and digital transition in the agri-food supply chain

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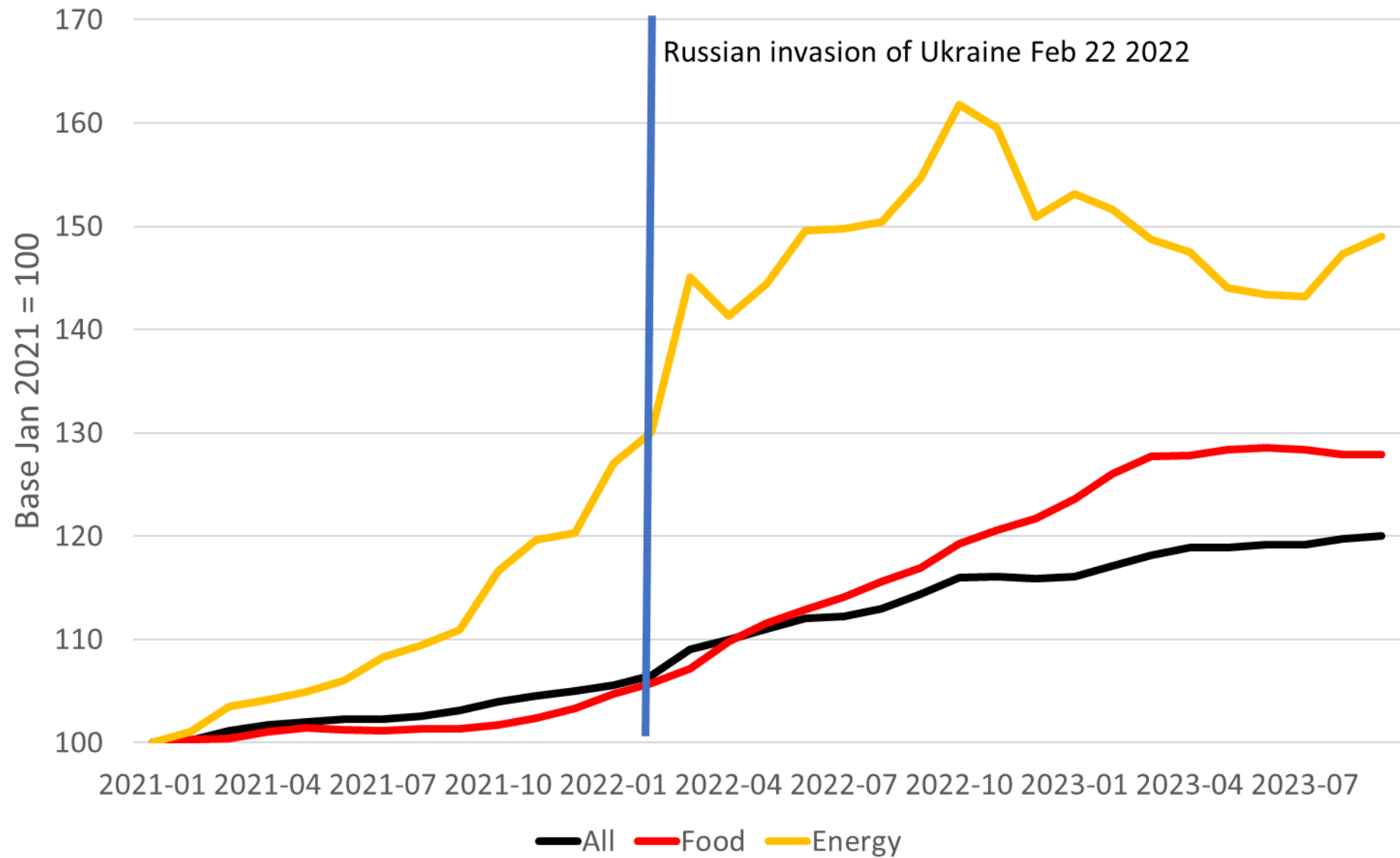
Outline

Food price inflation dynamics 2021-2023

Consumer responses – COVID19 vs cost of living shocks

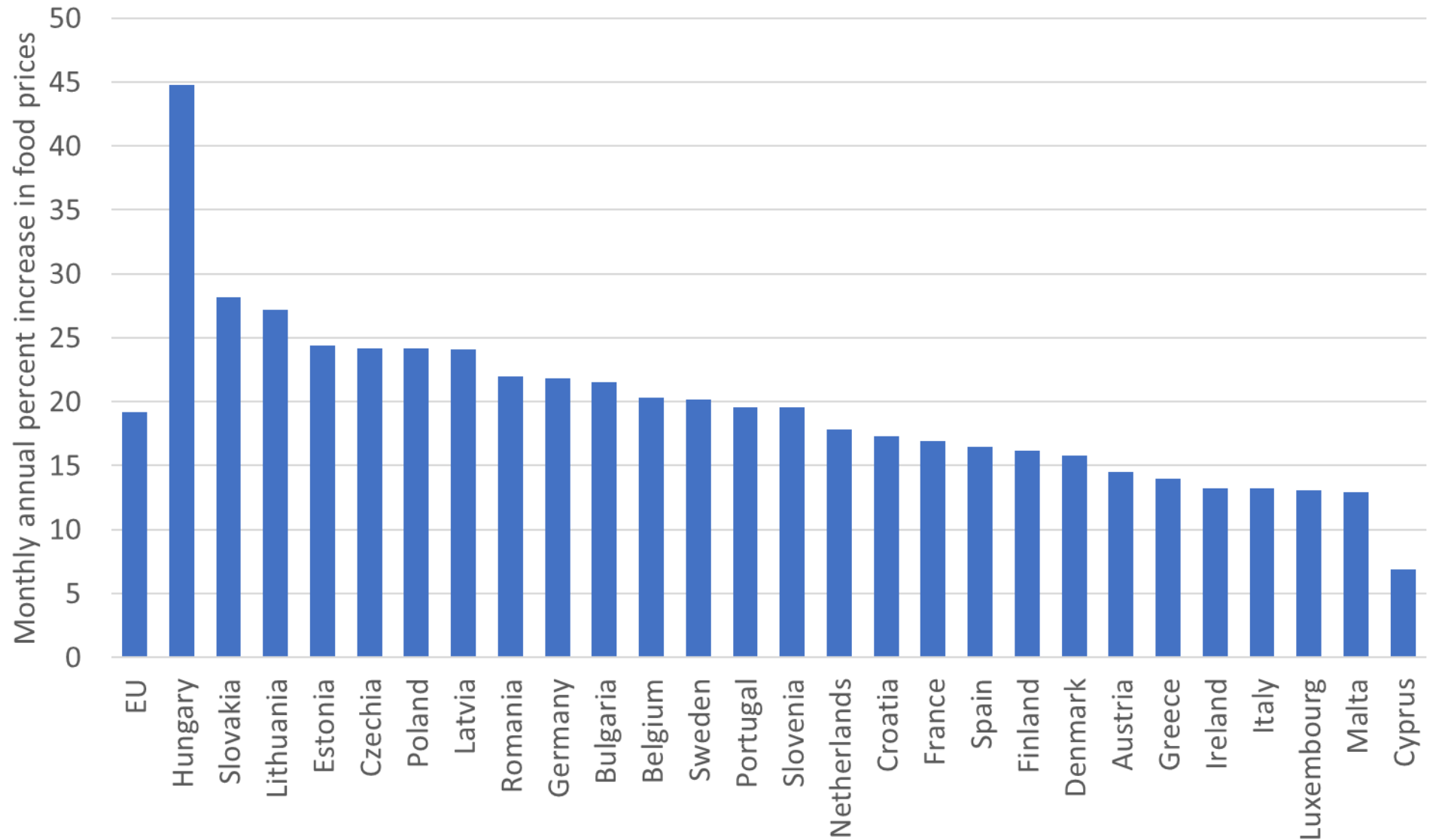
The sustainability transition and food chain behaviour

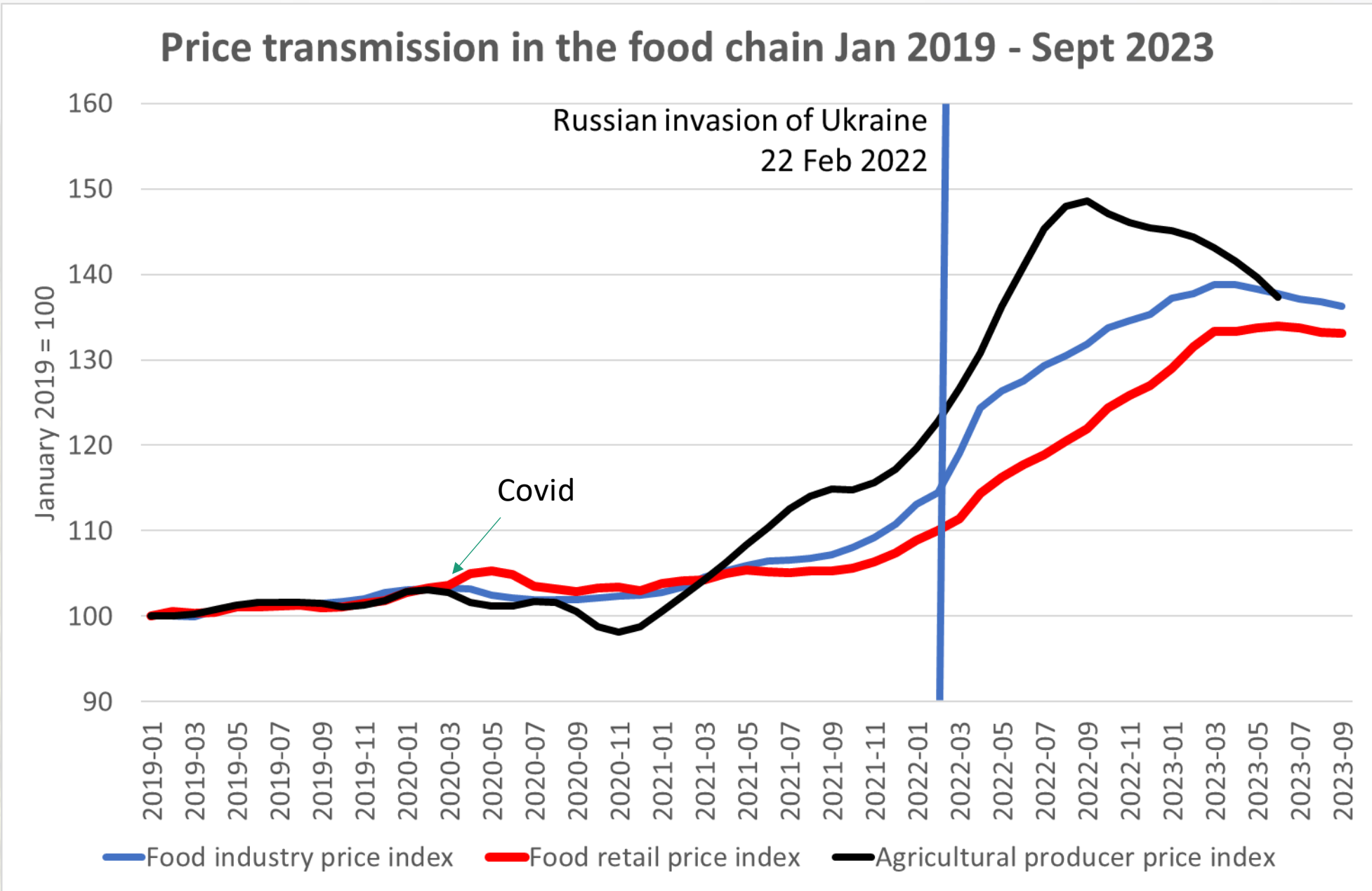
EU HICP price levels, index Jan 2021=100, Jan 2021-Sept 2023



Source: Eurostat, HICP – monthly data (index) [PRC_HICP_MIDX]

Peak monthly annual rate of change March 2023





Source: Eurostat, Food price monitoring tool [PRC_FSC_IDX]

Government responses to food price inflation

- Some countries introduced general support packages for households, principally focused on reducing energy costs or providing additional targeted income supports, but not containing any measures specific to food prices (e.g. Germany, Italy, Austria, Ireland, Czech Republic).
- Other countries, in addition, introduced specific measures to address food price inflation, either reducing VAT rates on food, introducing price controls on foodstuffs, introducing food vouchers, or taxing the excess profits of food retailers (e.g. Spain, France, Poland, Romania, Greece, Portugal, Hungary, Bulgaria).
- Reduced VAT rates on food were particularly contentious

Consumer responses to COVID and food price inflation

- **COVID**
- Much food service shut down, consumers prepared more food at home, online buying increased, 'mindfulness' increased but also more snacking and indulgent foods ([Grunert et al., 2023](#))
- **Cost of living shocks** – 2008 financial crisis, 2021-2023 inflation
- **Market data**
- Consumers have bought less and traded down
- Growth in private labels and in share of discounters
- Overall grocery sales in Europe grew by 2.9% in 2022 compared with 2021. This growth was the result of 10.7% higher prices, a decrease of 3.6% in volume sold, and a downtrading effect of 3.6% ([McKinsey and Eurocommerce, 2023](#)).

Consumer responses to COVID and food price inflation

- **Consumer surveys** provide more disaggregated information on behavioural changes
- [Grunert et al. \(2023\)](#) survey of consumers in 10 European countries identified a trend towards thriftiness but also a trend towards mindfulness (with the latter group also turning more thrifty)
- [Netherlands Sustainable Food Price Monitor](#) (WUR)
 - Proportion of sustainable food in total consumer spending declined slightly from 19% in 2021 to 18% in 2022 but shift back to food service and well as rapidly rising prices is major explanatory factor
 - Share of meat and meat products sold with a quality label increased from 43% in 2021 to 47% in 2022 due to strong growth in supply of poultry with the *Beter Leven* quality label.

Is more sustainable food more costly?

- **Agriculture**

- Internalising the (net) external costs of agricultural practices likely to raise costs
- Not always... (savings in input costs, greater resilience, the long term baseline)
- .. but very often (lower yields, alternatives are more expensive, pass through of polluter taxes such as emissions trading)
- Mirror clauses will raise the cost of imports

- **Food**

- Taxes on foods contributing to unhealthy and unsustainable diets
- Changing the food environment – supermarkets setting standards

Will more sustainable food increase consumer spending?

- **Health perspective:** Nutrient-rich foods are more expensive (on average) to produce and more expensive to purchase compared to staples (cereals and roots/tubers) and ultra-processed foods. Cheapest calories come from ‘fast food’.
- Some evidence that prices of fresh produce have been increasing relative to price of soft drinks and processed food ([Jones et al, 2014](#))
- Poverty the root cause why healthy diets are unaffordable – poor diets disproportionately affect lower socioeconomic groups
- Evidence whether there is a difference between the cost of healthy and unhealthy diets is mixed (e.g. Mexican study of children and adolescents ([Clark et al., 2021](#)) vs. Canadian study that found following Canada’s dietary guidelines increased dietary cost ([Rochefort et al., 2022](#)).

Food costs of environmental sustainability

- Consuming less animal products and reducing food waste decrease the budget, but increasing consumption of organic products adds to it.
- **Swiss study**: Transition towards a healthier diet (that adhered to guidelines of the Swiss Society of Nutrition) would be more sustainable than current dietary patterns (a 36% lower environmental footprint), would also cost 33% less than their current food expenditure, and generate roughly 3% fewer adverse health outcomes ([Chen et al., 2019](#))
- **Portuguese study**: Consumer survey showed plant-based consumers have lower food expenditures than omnivorous consumers ([Pais et al., 2022](#)) (confirms results of [Lusk and Norwood \(2016\)](#) for the US)
- And beware of respending effects !

Addressing trade-offs between food prices and sustainability

- *“Pricing: There is clear evidence that direct measures are effective. This includes sugar taxes, meat taxes, and pricing products according to their environmental impacts, as well as lower taxes on healthy and sustainable alternatives.”*
 - Group of Chief Scientific Advisors [Sustainable Food Consumption \(2023\)](#)
- But politically this is a ‘hot potato’
- Potential flanking measures
 - Role for repurposing agricultural support
 - Subsidising the consumption of sustainable foods
 - Technological developments in alternative proteins
 - Targeted income support for vulnerable households