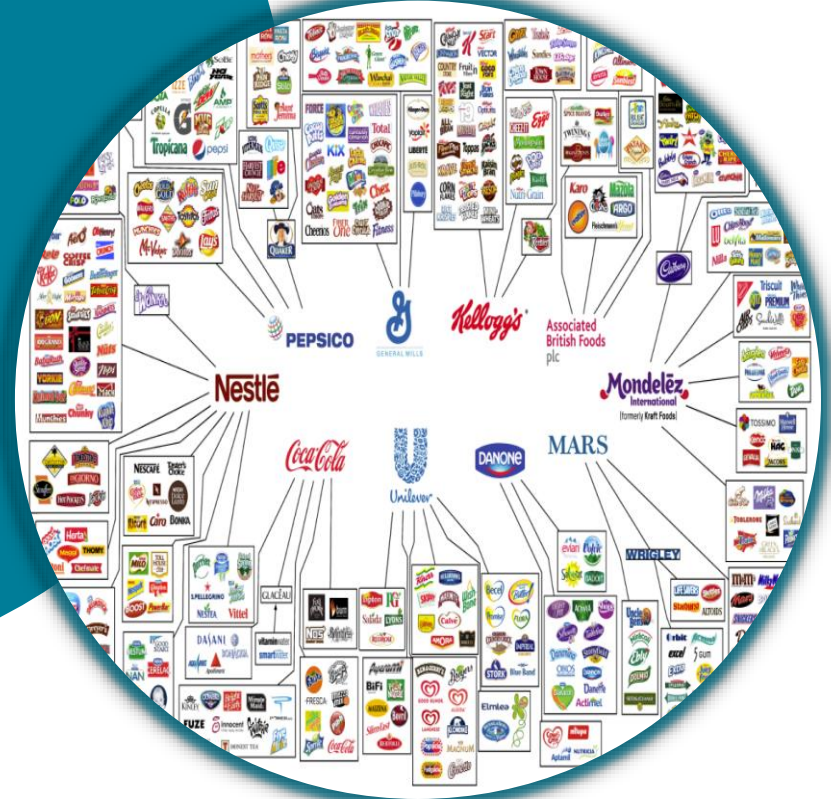


# Understanding the global rise of ultra-processed foods: the food systems and commercial determinants

Nutritional Determinants of Health: Recent Research Discoveries and Translation into Public Health Action

28<sup>th</sup> June 2023, College of France, Paris



**Dr Phillip Baker**

Australian Research Council Future Fellow  
Institute for Physical Activity and Nutrition,  
Deakin University, Melbourne, Australia



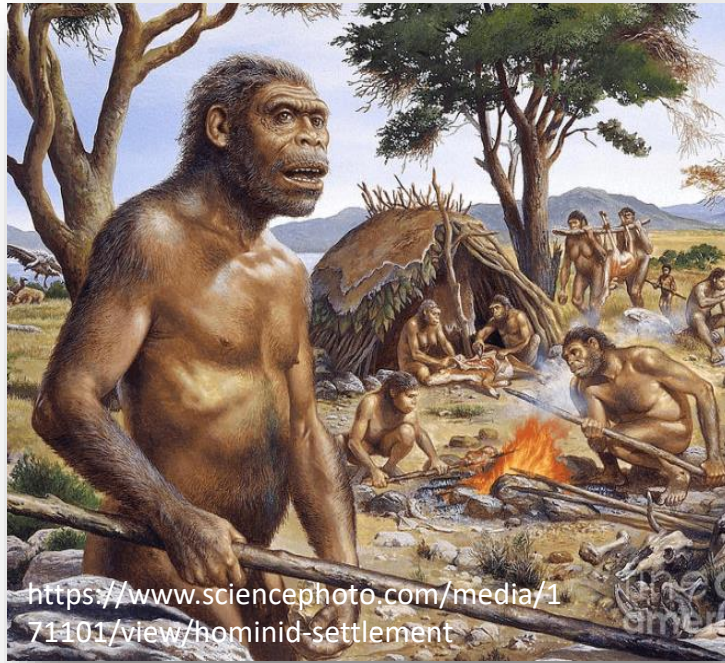
# Introduction

- This presentation **explains the rise of ultra-processed foods in human diets**
- Adopts a **whole of food systems approach**, focusing on political, economic and commercial determinants of dietary change in historical context
- Why? Because understanding the nature of the problem can **inform new modalities of dialogue, research and public health action**



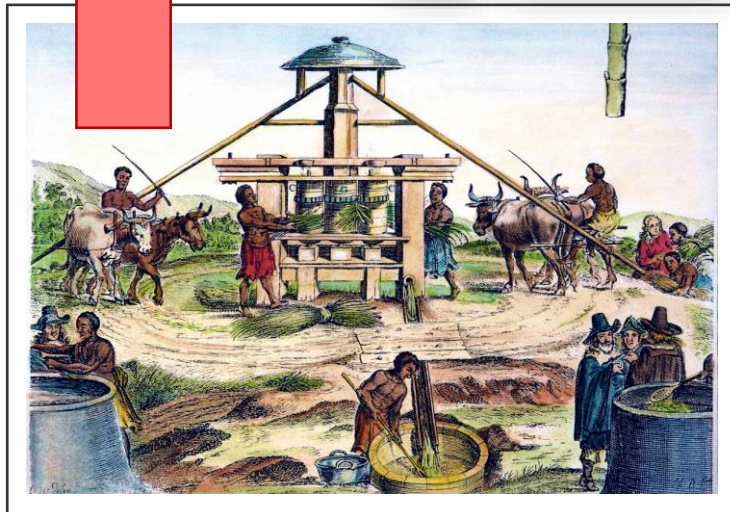
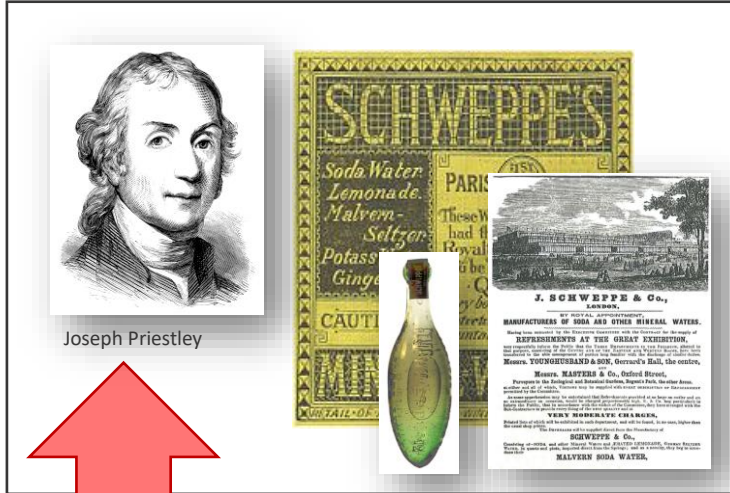
Shopfront, north Sumatra, Indonesia (2014).  
Source: authors own

# Food processing and human evolution



<https://www.fao.org/>

# The origins of ultra-processed foods

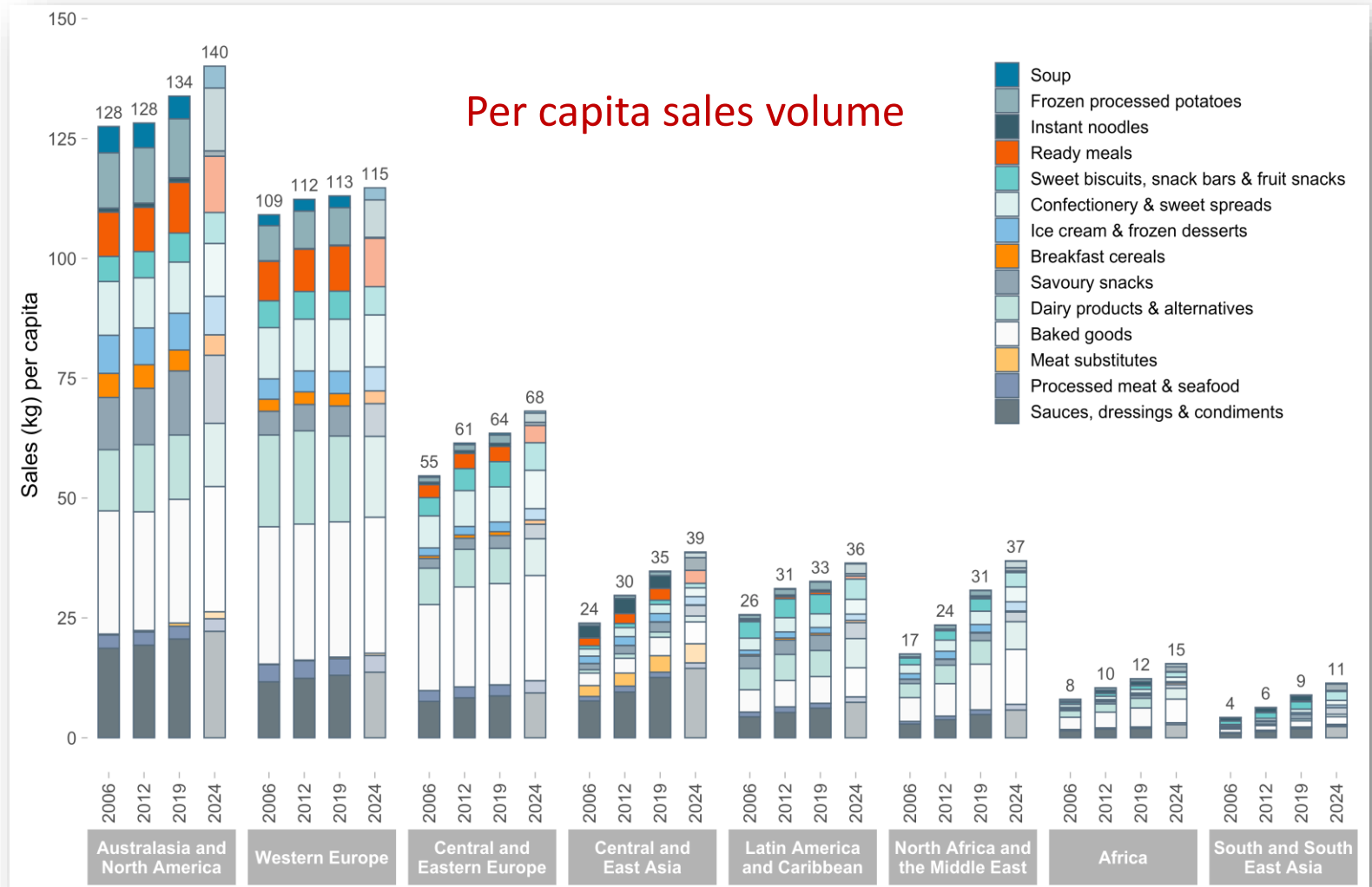


# The rise of ultra-processed foods

## Per capita UPF sales (kg) by region, 2006–2019 with projections to 2024

Baker, P., Machado, P., Santos, T., Sievert, K., Backholer, K., Hadjidakou, M., ... & Lawrence, M. (2020). Ultra-processed foods and the nutrition transition: Global, regional and national trends, food systems transformations and political economy drivers. *Obesity Reviews*, 21(12), e13126.

Data from: Euromonitor Passport (2019)

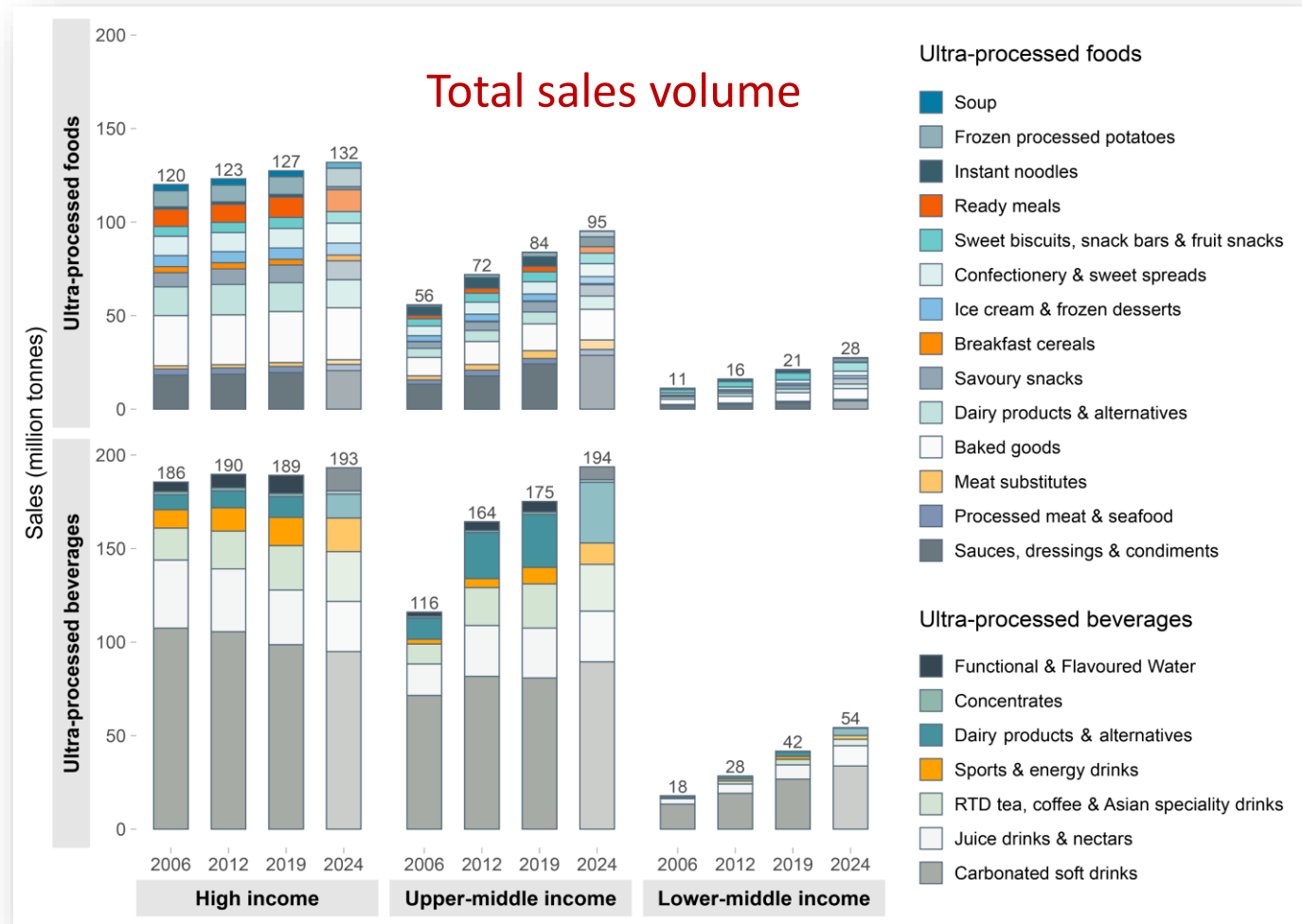


# The rise of ultra-processed foods

## Total UPF and UPB sales (millions tonnes) by country income, 2006–2019, with projections to 2024

Moodie, R., Bennett, E., Kwong, E. J. L., Santos... & Baker, P. (2021). Ultra-processed profits: the political economy of countering the global spread of ultra-processed foods—a synthesis review on the market and political practices of transnational food corporations. *International Journal of Health Policy and Management*, 10, 968-982.

Data from: Euromonitor Passport (2019)



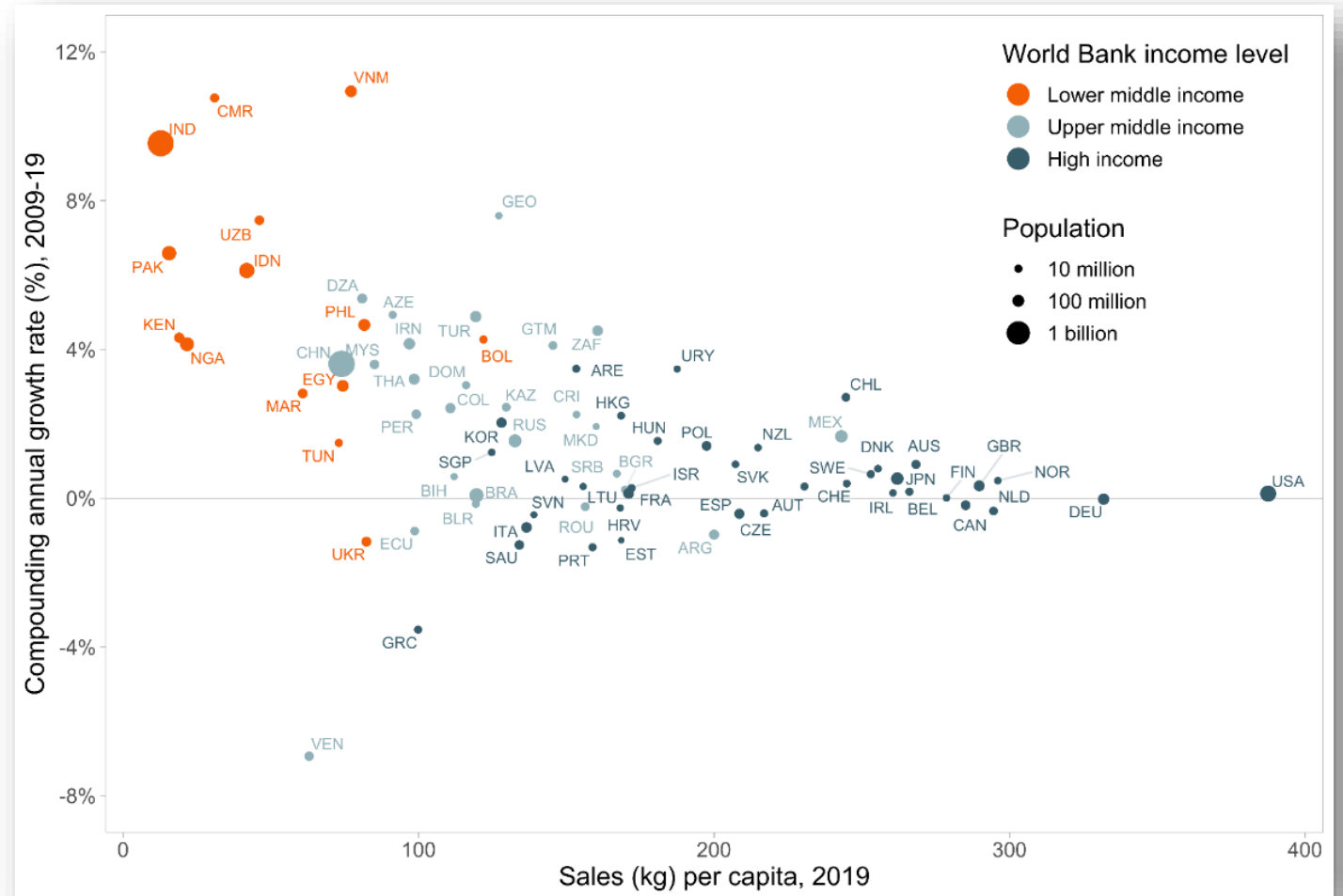
# ...although with wide variation between countries

## Combined per capita UPF and UPB sales (kg) in 2019 vs. 2009–2019 annual growth rate (%)

Why do some countries transition to diets higher in UPFs (NOVA 4), but not others?

Baker, P., Machado, P., Santos, T., Sievert, K., Backholer, K., Hadjidakou, M., ... & Lawrence, M. (2020). Ultra-processed foods and the nutrition transition: Global, regional and national trends, food systems transformations and political economy drivers. *Obesity Reviews*, 21(12), e13126.

Data from: Euromonitor Passport (2019)



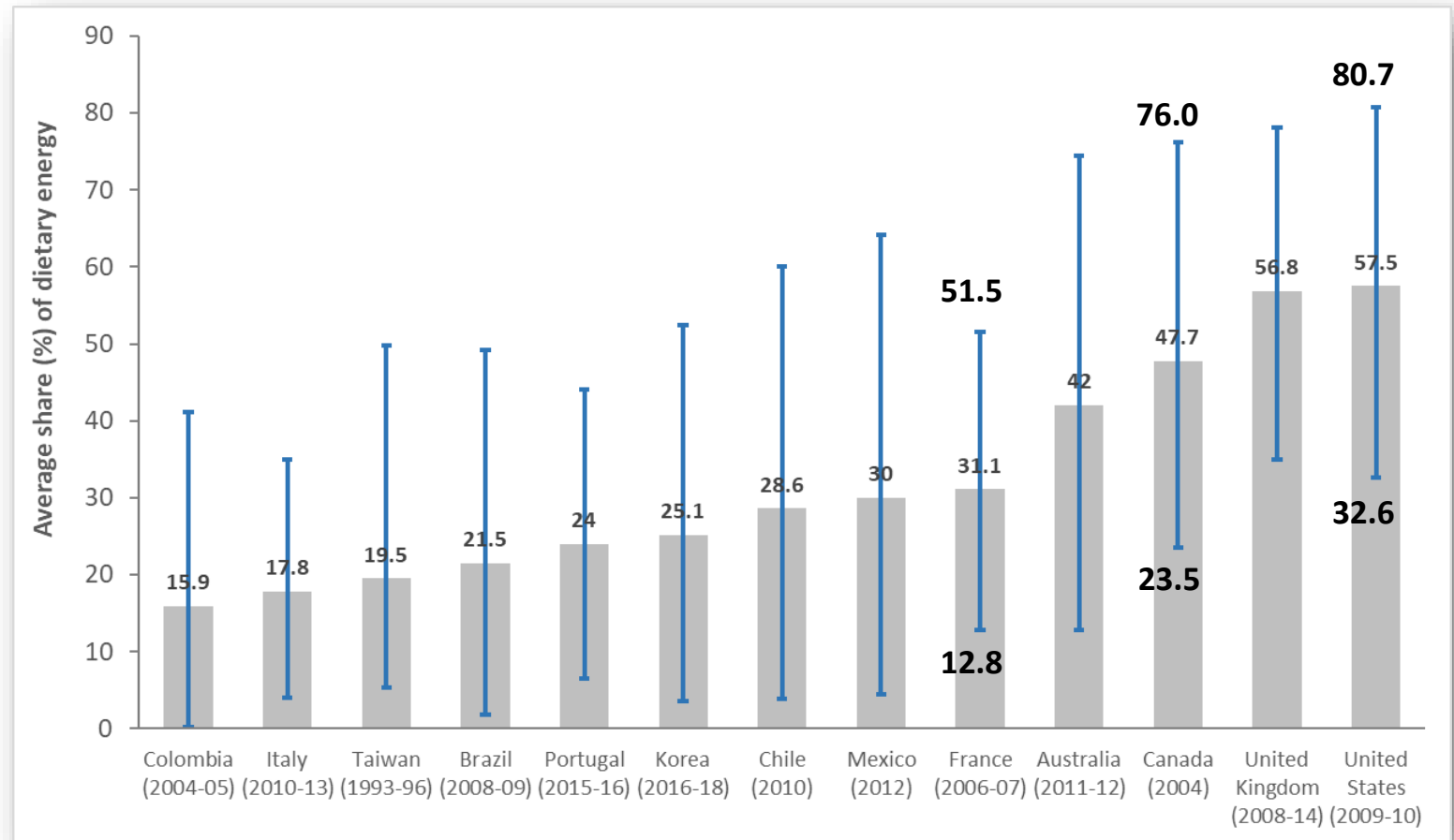
# ...and wide variation within countries

## Average share (%) of total dietary energy from ultra-processed foods

Bars indicate lower- and upper-quartiles

Martini, D., Godos, J., Bonaccio, M., Vitaglione, P., & Grosso, G. (2021). Ultra-processed foods and nutritional dietary profile: a meta-analysis of nationally representative samples. *Nutrients*, 13(10), 3390.

Data from nationally representative samples using 24-hour dietary recall





# Ultra-processed foods today



<https://www.genengnews.com/news/diets-high-in-ultra-processed-foods-linked-to-increased-risk-of-cardiovascular-disease-and-death/>

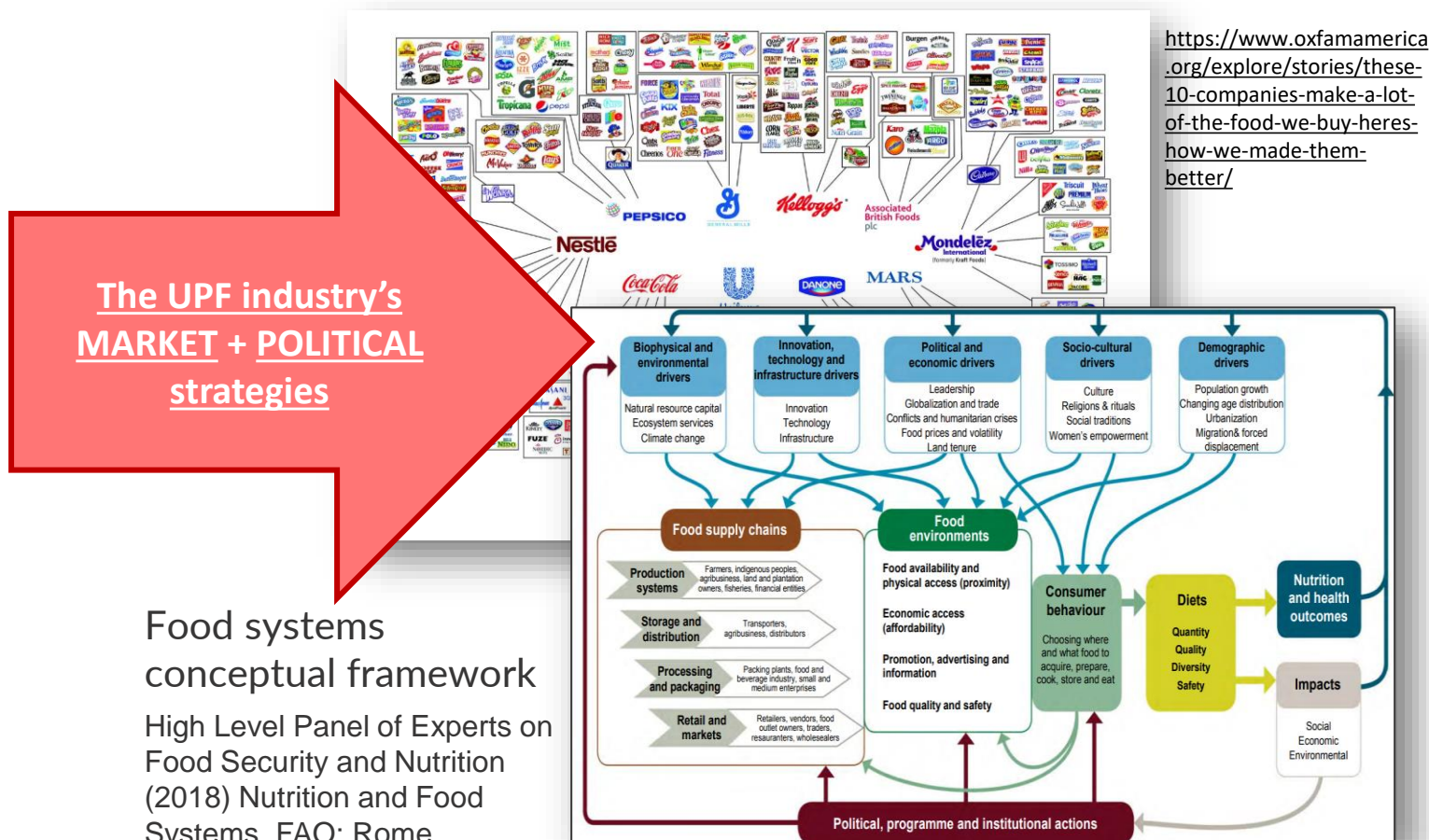
# The rise of UPFs – a food systems explanation

The **purpose** of ultra-processed foods (NOVA 4):

“Processes and ingredients used to manufacture ultra-processed foods are **designed** to create **highly profitable** products (low-cost ingredients, long shelf-life, emphatic branding), **convenient** (ready-to-consume) **hyper-palatable** products **liable to displace** freshly prepared dishes and meals made from all other NOVA food groups”

Monteiro, C. A., Cannon, G., Lawrence, M., Costa Louzada, M. D., & Pereira Machado, P. (2019). Ultra-processed foods, diet quality, and health using the NOVA classification system. FAO; Rome.

**‘Ultra-processed food systems’** are food systems aligned with this purpose:

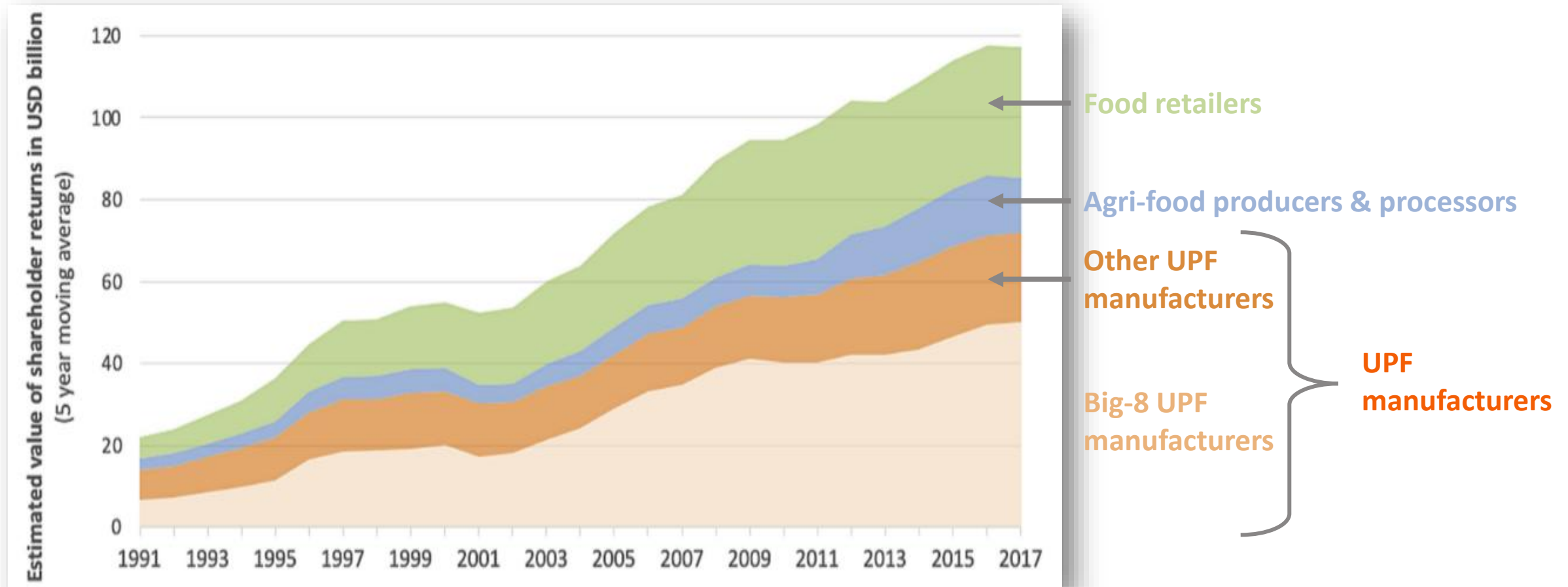


## The growth imperative at the core of UPF systems

“Right now in the United States, people consume more soft drinks than any other liquid - including ordinary tap water. If we take full advantage of our opportunities, someday, not too many years into our second century, we will see the same wave catching on in market after market, until, eventually, the number one beverage on earth will [...] be soft drinks - our soft drinks”

Roberto Goizueta, Chairman, President and CEO of the Coca-Cola Company, 1980-1997; <https://www.youtube.com/watch?v=tpF-BbaV1g>

# UPFs are designed for capital accumulation



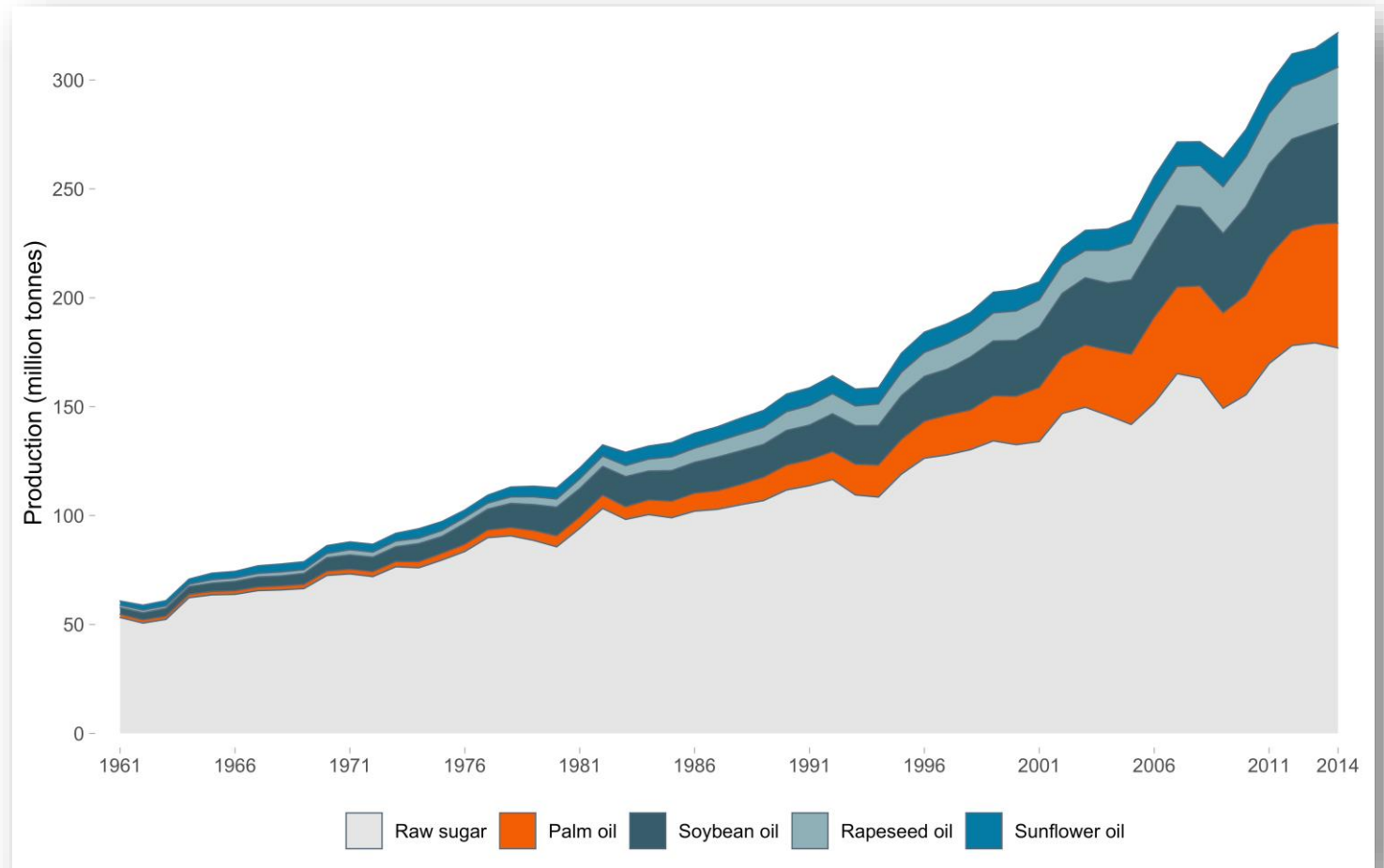
Wood, B., Williams, O., Baker, P., & Sacks, G. (2023). Behind the 'creative destruction' of human diets: An analysis of the structure and market dynamics of the ultra-processed food manufacturing industry and implications for public health. *Journal of Agrarian Change*.

# Low-cost commodity ingredients

## World production of raw sugar and major vegetable oil crops, 1961–2013

Baker, P., Machado, P., Santos, T., Sievert, K., Backholer, K., Hadjikakou, M., ... & Lawrence, M. (2020). Ultra-processed foods and the nutrition transition: Global, regional and national trends, food systems transformations and political economy drivers. *Obesity Reviews*, 21(12), e13126.

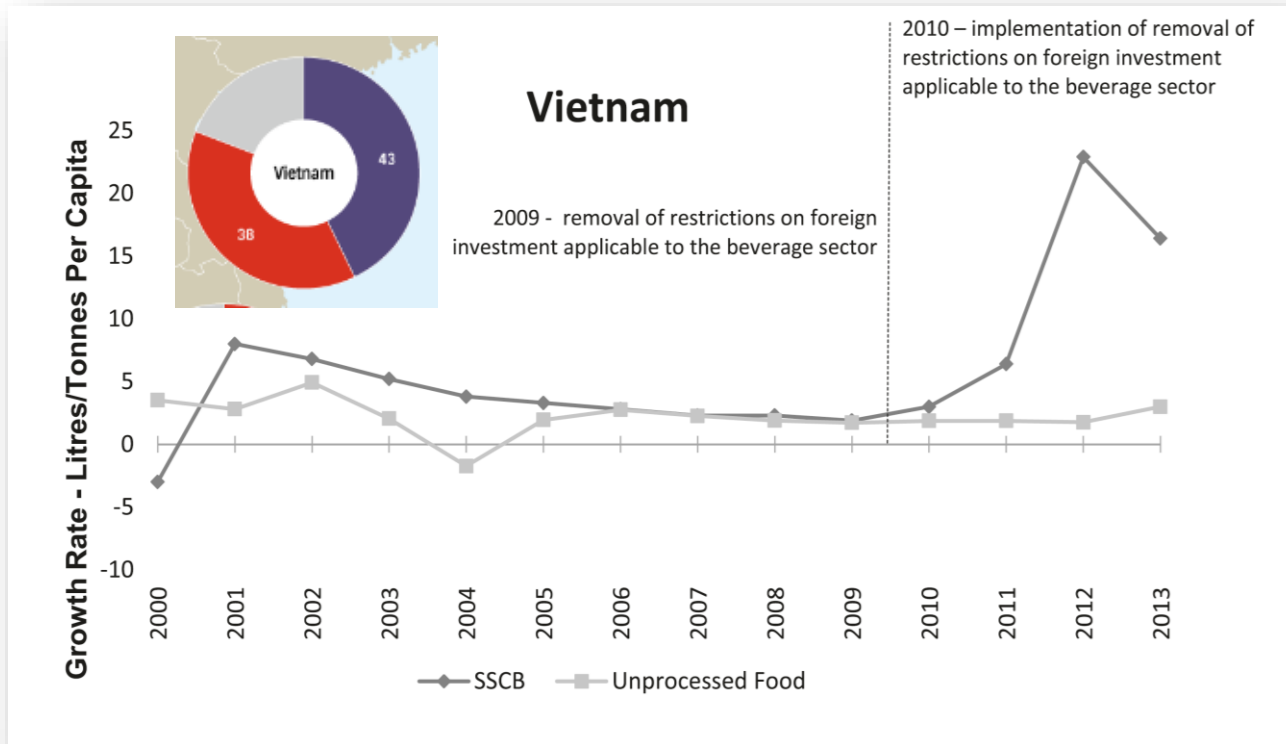
Data from FAOSTAT





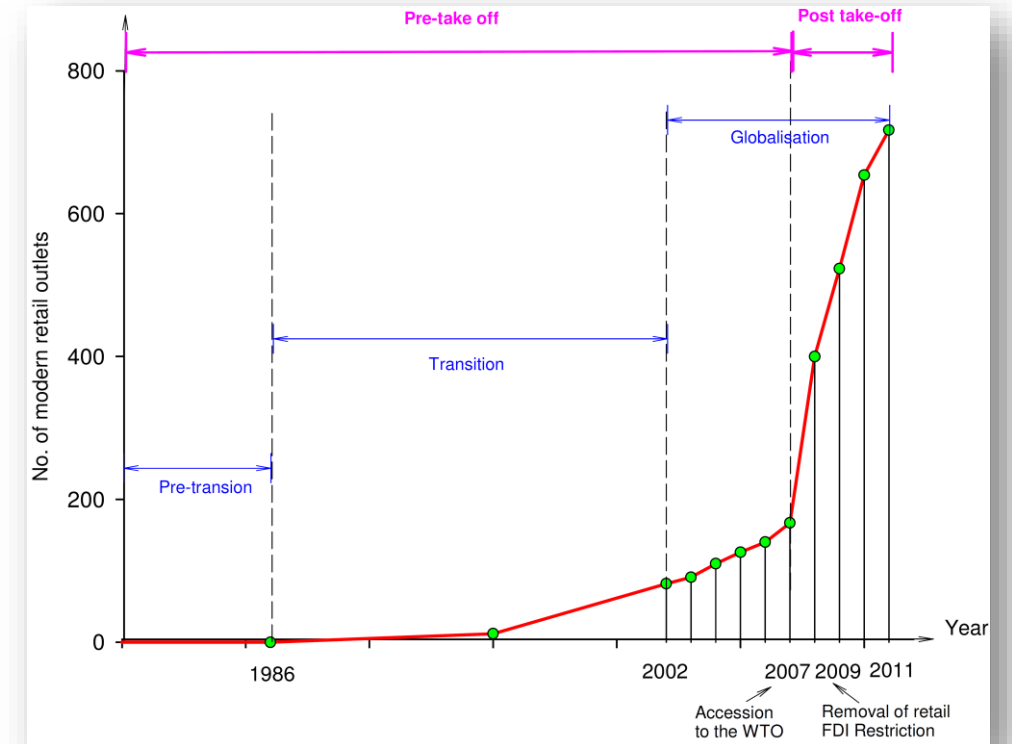
# Trade and investment liberalization

## Growth in SSB sales in Vietnam following accession to WTO vs unprocessed food



Schram A, Labonte R, Baker P, et al. (2015) The role of trade and investment liberalization in the sugar-sweetened carbonated beverages market: a natural experiment contrasting Vietnam and the Philippines. *Globalization and Health*, 11:41.

## Supermarketisation in Vietnam following accession to the WTO

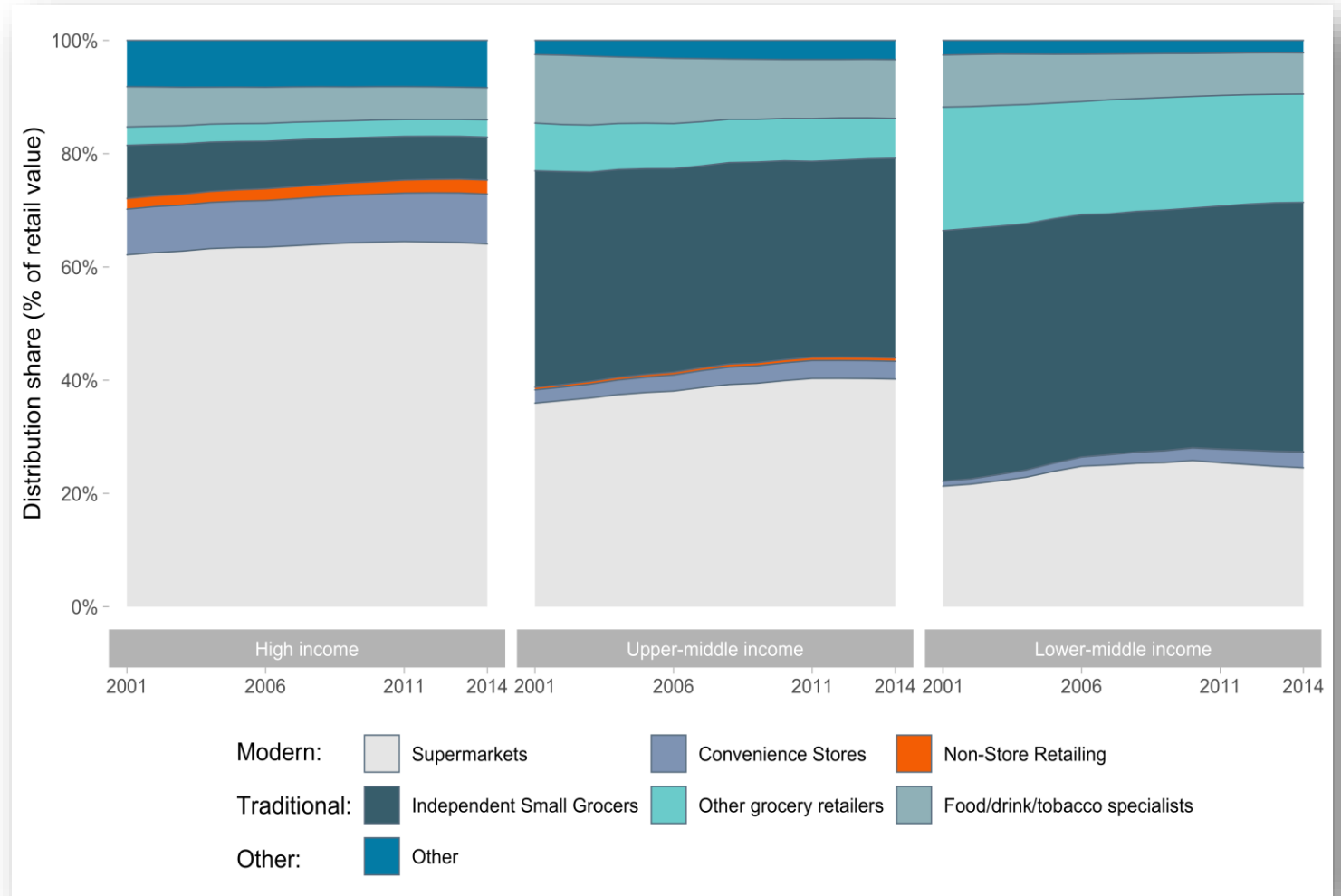


Nguyen H, et al. (2013) "The emerging food retail structure of Vietnam: Phases of expansion in a post-socialist environment", *International Journal of Retail & Distribution Management*, 41(8): 596-626

# Supermarketisation and mass-distribution

## Processed food distribution (calculated as % of total retail value) by modern versus traditional retail channels by country income, 2001-2014

Baker, P., Machado, P., Santos, T., Sievert, K., Backholer, K., Hadjikakou, M., ... & Lawrence, M. (2020). Ultra-processed foods and the nutrition transition: Global, regional and national trends, food systems transformations and political economy drivers. *Obesity Reviews*, 21(12), e13126.



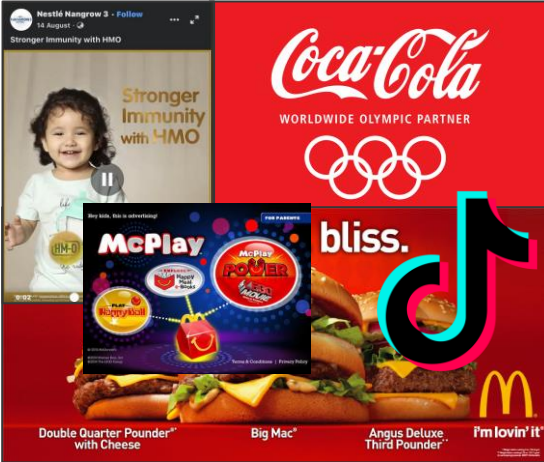


# Reaching the 'base of the pyramid' – micro-distribution



# The power of marketing

## Strategy 1 Promotion



## Strategy 2 Products & pricing



## Strategy 3 Professionals



## Strategy 4 Public relations



**Cross-cutting**  
Corporate surveillance & science supports and amplifies this marketing

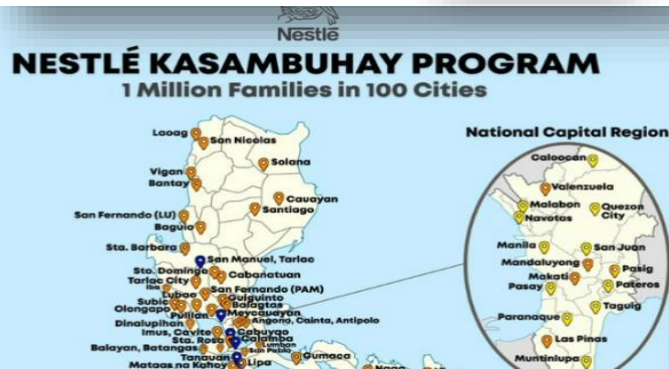
# The power of public relations



OUR VISION: DANONE, ONE PLANET. ONE HEALTH

**Externally monitoring  
our practices**

FTSE4Good and ATNI



## Leading the Way

Responsible Marketing of Breast Milk Substitutes 2021 Report

Enabling healthy food environments

## Creating Shared Value and Sustainability Report 2021

We unlock the power of food to enhance quality of life for everyone, today and for generations to come.

124.6 billion

number of servings of affordable nutrition with micronutrient fortification in 2021 (with the 'big four' micronutrients, which are iron, vitamin A, iodine and zinc)

2 ZERO HUNGER



17 PARTNERSHIPS FOR THE GOALS



SDG 17: PARTNERSHIPS FOR THE GOALS

STRENGTHEN THE MEANS OF IMPLEMENTATION AND REVITALIZE THE GLOBAL PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

Engagement of Danone: Major Focus

NESTLÉ EXPERT

**In improving nutrition science is key**



Odd Erik Johansen, Global Clinical Development Lead, Cardio-Metabolism, Nestlé Health Science

## Net zero dairy

Transforming our dairy supply chains





# Conclusions and discussion points

- **Ultra-processed foods** are a major feature of the nutrition transition, but with wide variation between countries and contexts
- **Ultra-processed food systems** perpetuate the rise of ultra-processed foods (NOVA 4) in human diets, and the associated harms – but by no means universally
- The core driver of these systems is a **corporate growth imperative**, organized by logics of global capital accumulation in an increasingly financialised world economy
- Responding to this challenge requires a **whole of food systems approach**, to counter both the **market AND political strategies** of the UPF industry



***Merci!***

[phil.baker@deakin.edu.au](mailto:phil.baker@deakin.edu.au)

 [@PhilBakerNZ](https://twitter.com/PhilBakerNZ)