



CHANGING FOOD SYSTEMS AND NUTRITION: DO WE HAVE THE CONCEPTS AND DATA TO UNDERSTAND, TRACK, AND ANTICIPATE THE LINKS?

3rd International Conference on
Global Food Security:
Global Challenges, Local Solutions
and Connected Pathways
3-6 December 2017 | Cape Town,
South Africa

PANELISTS

Dr. Victor Ajieroh
(Discussant)

Senior Nutrition Advisor, Bill & Melinda Gates Foundation, Nigeria

Dr. David Tschirley

Professor, International Development, Dept. of Agricultural, Food, & Resource Economics, MSU, and Co-Director, Food Security Group

Dr. Anna Herforth

Independent consultant in Global nutrition and food security and Project Director, IANDA

Dr. S. Liverpool-Tasie

Asst. Professor, Dept. of Agricultural, Food, & Resource Economics, MSU

Dr. Milu Muyanga

Asst. Professor, International Development, Dept. of Agricultural, Food, & Resource Economics, MSU

Dr. Jessica Fanzo

Bloomberg Distinguished Professor of Global Food & Ag Policy and Ethics, Bloomberg School of Public Health, Johns Hopkins University

PROGRAM

8:30-10:00 Introduction (5 min)

Four presentations (15 min + 5 min questions of clarification)

10:00-10:15 Coffee / tea break

10:15-11:45 Final presentation (15 min + 5 min)

Discussant (15 min)

Audience engagement (50 min)

Wrap-up (10 min)

MOTIVATION

African (and other) food systems are changing rapidly

Big impacts on diets and nutrition

But our data (and to some extent our concepts) are inadequate to:

- Describe and track the relevant changes and
- Link them with confidence to nutrition outcomes

This situation needs to change, and can change

THE SITUATION CAN BE CHANGED

Erratic, non-standardized national surveys → LSMS

LSMS → LSMS-ISA

We should be able to do something similar for diets and nutrition

Existing related efforts

- Global Dietary Database (GDD), FAO Global Individual Food consumption data Tool (GIFT), Tufts' Indicators of Affordability of Nutritious Diets in Africa (IANDA), International Dietary Data Expansion project (INDDEX)
- Ask Herforth to speak to these

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ATTENTION IS BEING BROUGHT TO THE ISSUE

Global Nutrition Report's "Nourishing the SDGs" (2017)

- "we must fill (data) gaps and change the way we analyse and use data"

The Global Panel's "Metrics Brief" (2015)

- Improvement needed in six areas, among them food intake and food environment

Haddad and Webb in The Guardian (2015)

- Emphasize need for data on (a) food intake and (b) food environment metrics

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FOOD ENVIRONMENT

The internal and external environment in which a consumer makes their decisions about food acquisition and consumption



Food System

Food System

A diagram consisting of two concentric circles. The outer circle is dark blue and contains the text 'Food System' at the top. The inner circle is light blue and contains the text 'Consumer' in the center.

Consumer



Food System

Food
Environment

Consumer

Food System

Food Environment

Income

Prices

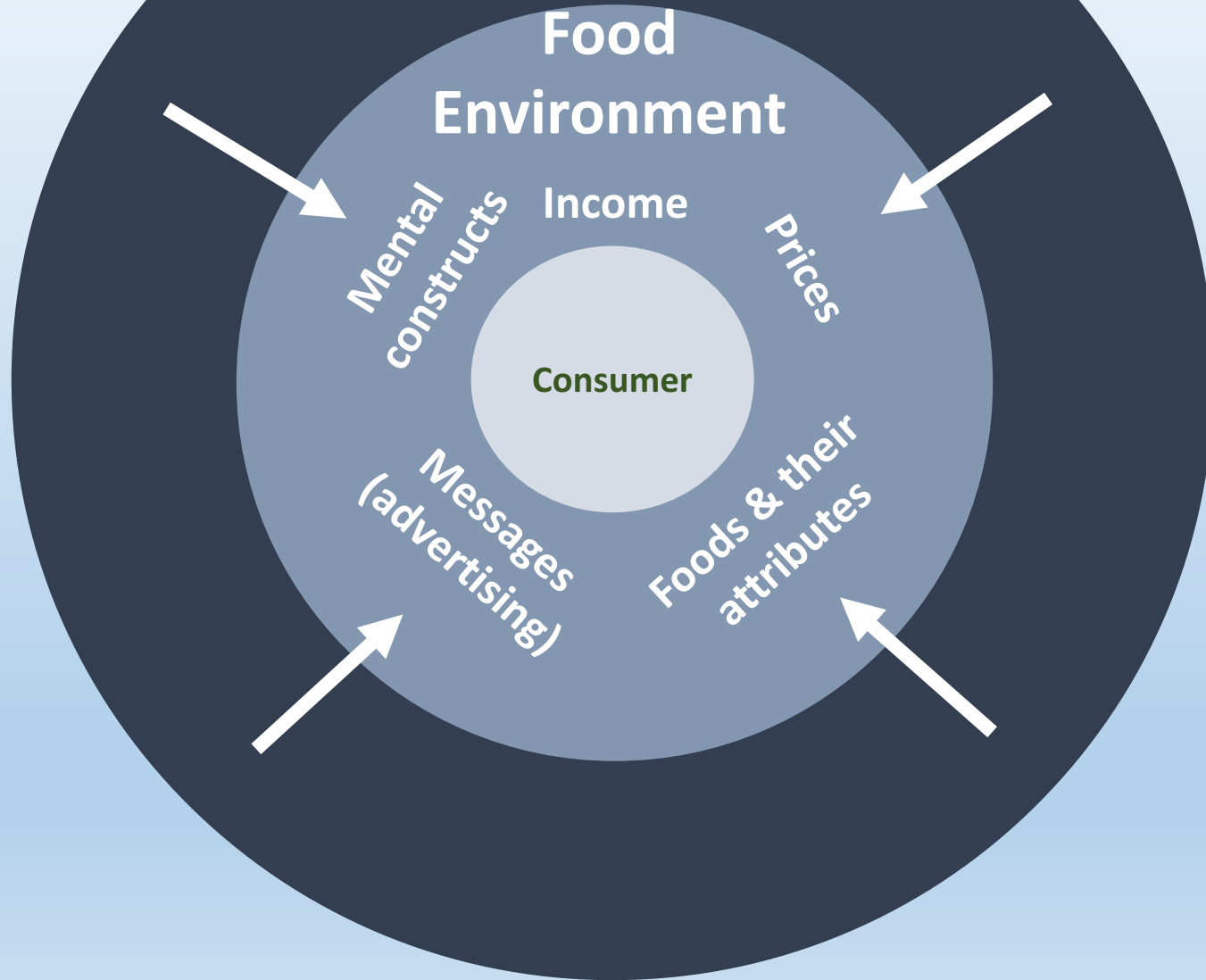
Mental constructs

Consumer

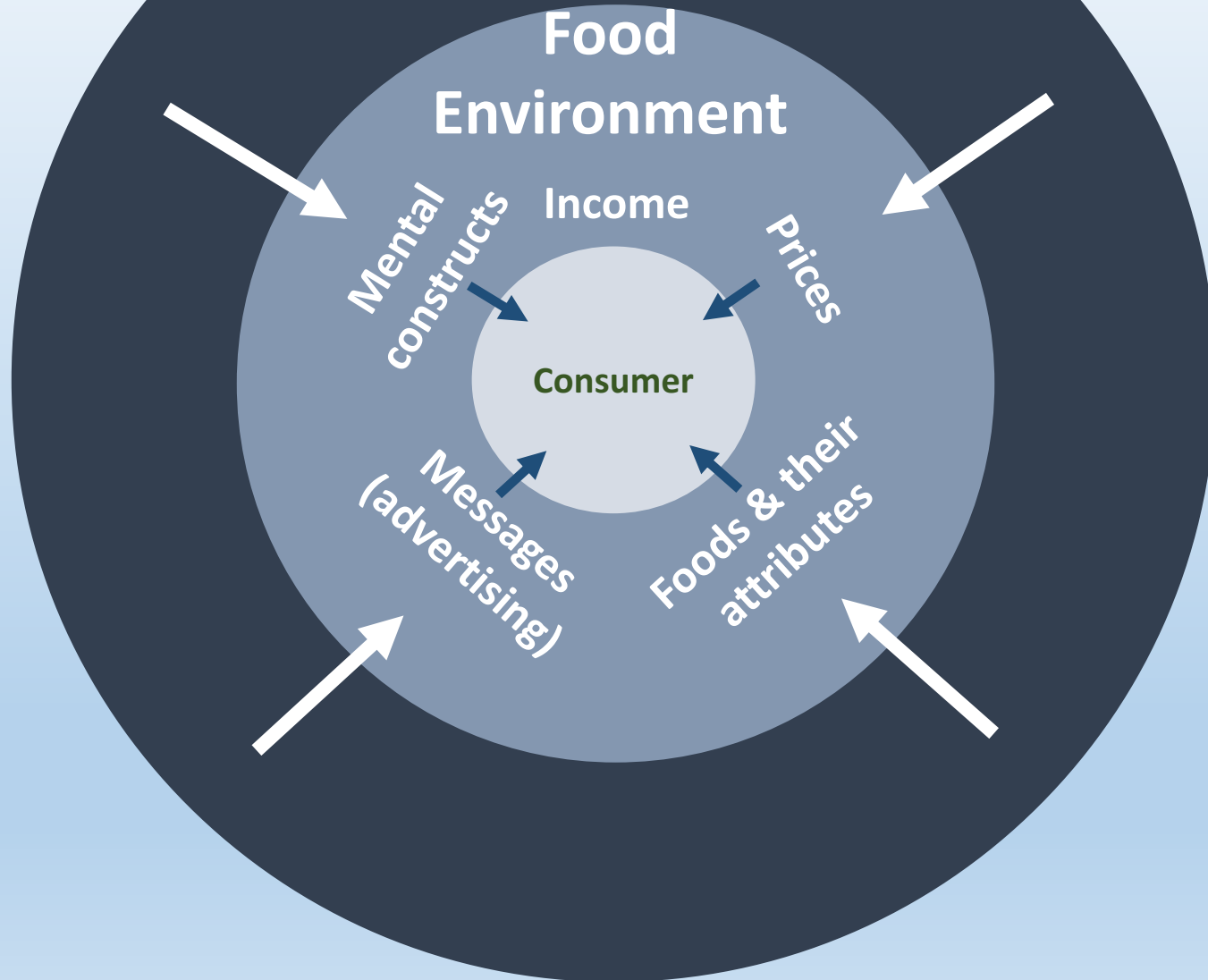
Messages (advertising)

Foods & their attributes

Food System



Food System



THIS SYMPOSIUM

Review what we know about changing food systems from farm to midstream to retail to diets

Highlight knowledge gaps and emerging issues

Review data efforts underway

Generate additional input on priorities for research - and for data generation and consolidation - to allow routine examination of changes in the food environment and its impact on food choices and nutritional outcomes

*FOOD SYSTEMS AND THE DIET
TRANSFORMATION IN AFRICA:
WHAT DO WE KNOW? WHAT DO WE NEED TO KNOW?*

David Tschirley, Michigan State University

Presented at the Symposium “Changing food systems and nutrition: do we have the concepts and data to understand, track, and anticipate the links?”

CCICT Convention Center, Cape Town

3 December 2017



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



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Based on joint work with Thomas Reardon, Steven Haggblade, Saweda Liverpool Tasié, Titus Awokuse, Bart Minten, Michael Dolislager, Christine Sauer, Jason Snyder, Laura Medwid, Sarah Chase-Walsh

What do we know?

#1: DIETS ARE TRANSFORMING IN THREE WAYS

Food is becoming more purchased

- About 50% in rural areas of Africa (by value)



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perishable

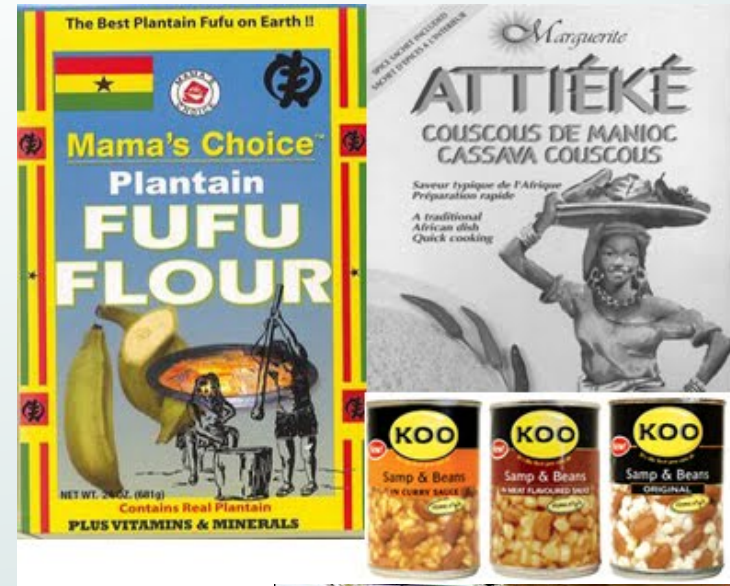
- Non-cereals/pulses are 50% to 70% of diets in value terms



#1: DIETS ARE TRANSFORMING IN THREE WAYS

processed and prepared

- Processed: 50% to 65% of all food; 70% to 80% of purchased food
- Food away from home: exceeds 15% in some countries of ESA
- growing everywhere more rapidly than any other category



Upshots

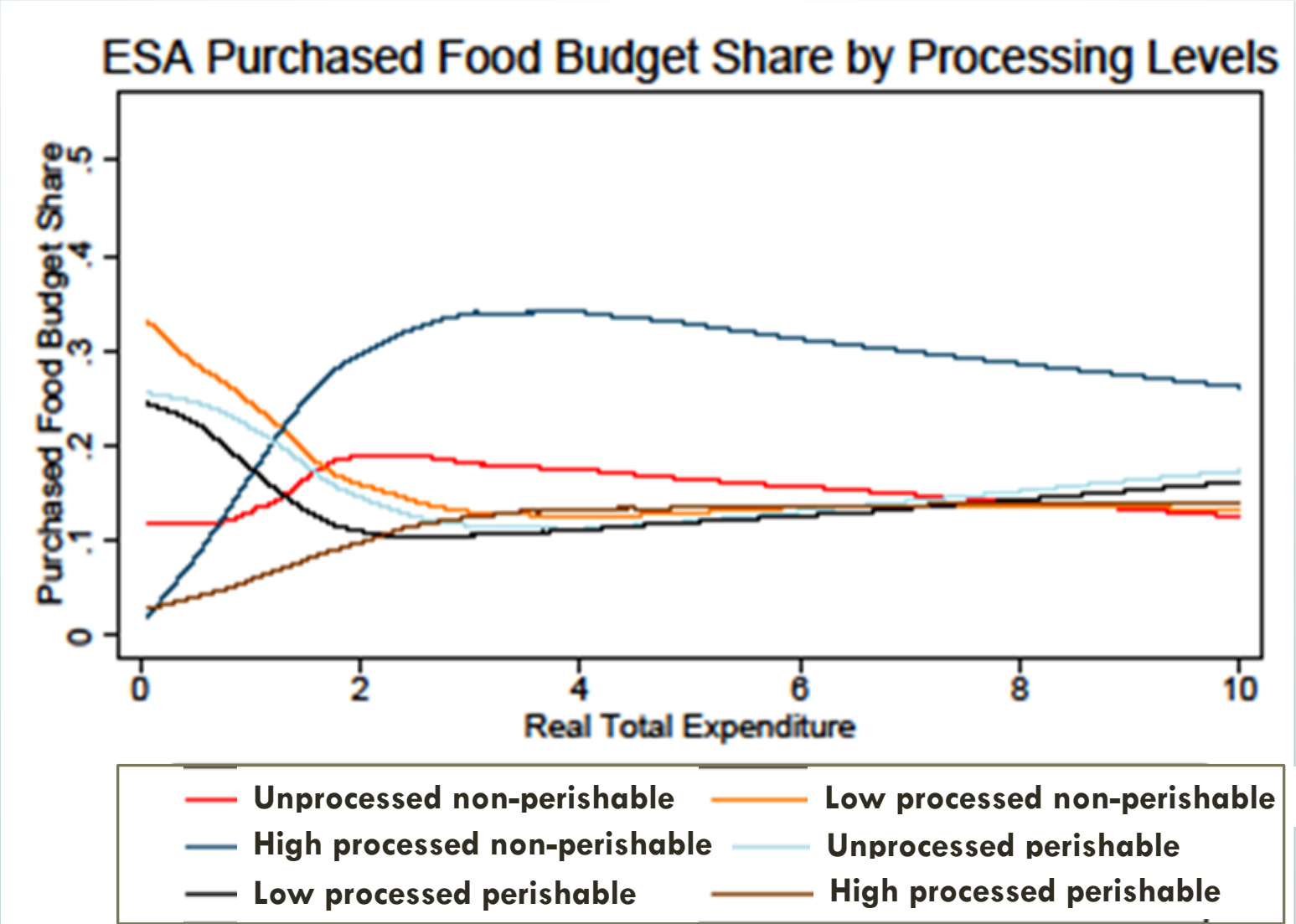
- (1) The post-farm segment of the agrifood system is becoming ever more important***
- (2) Markets are now the dominant shaper of the food environment and thus of food choices***

#2: THE TRANSFORMATION IS NOT JUST AN URBAN MIDDLE CLASS STORY

The transformation is broad

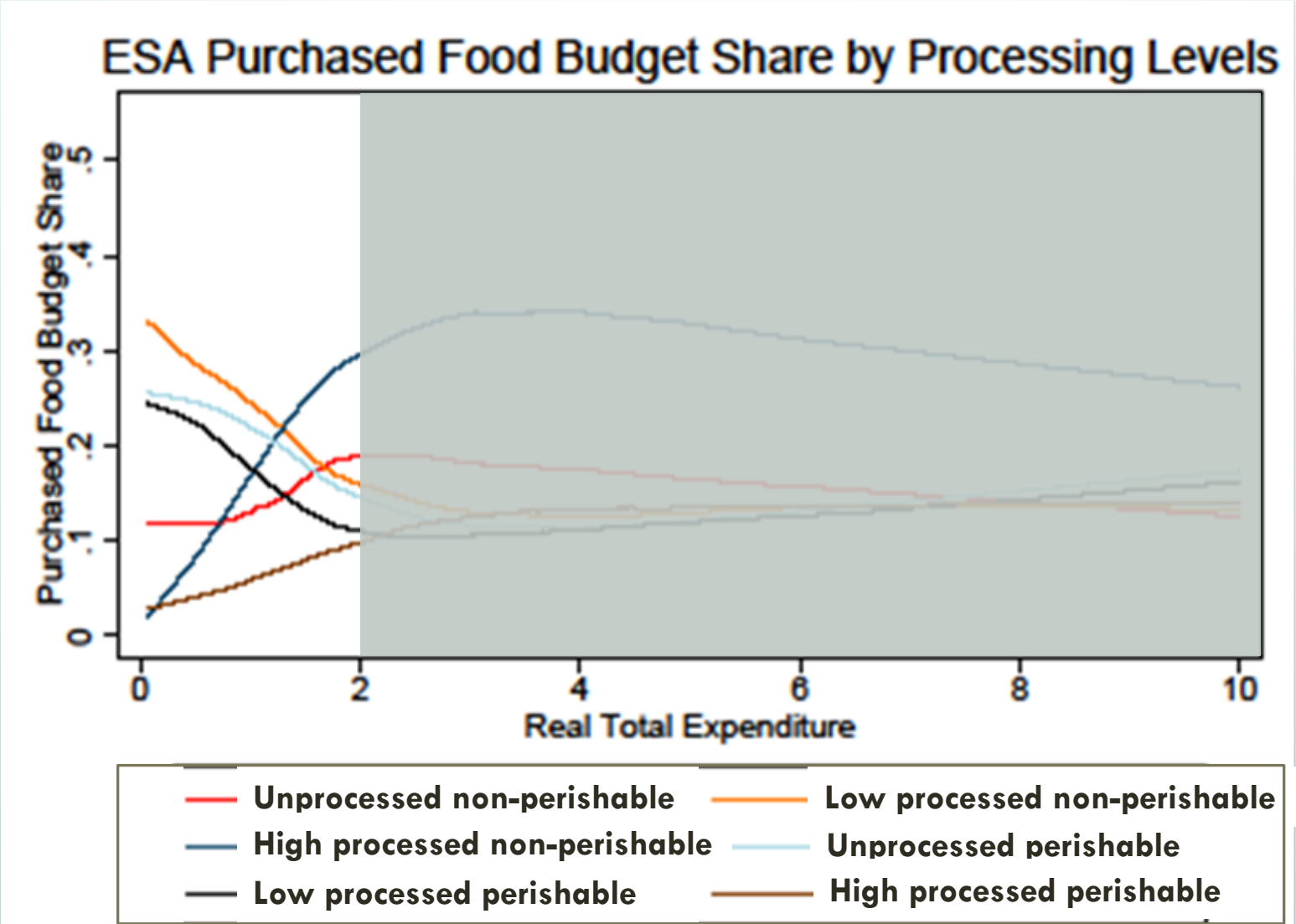
- In rural and urban areas
- Across the income distribution (not just the middle- and upper classes)

Kernel regression results on purchased food budget shares, additionally weighted by population across 5 countries of ESA



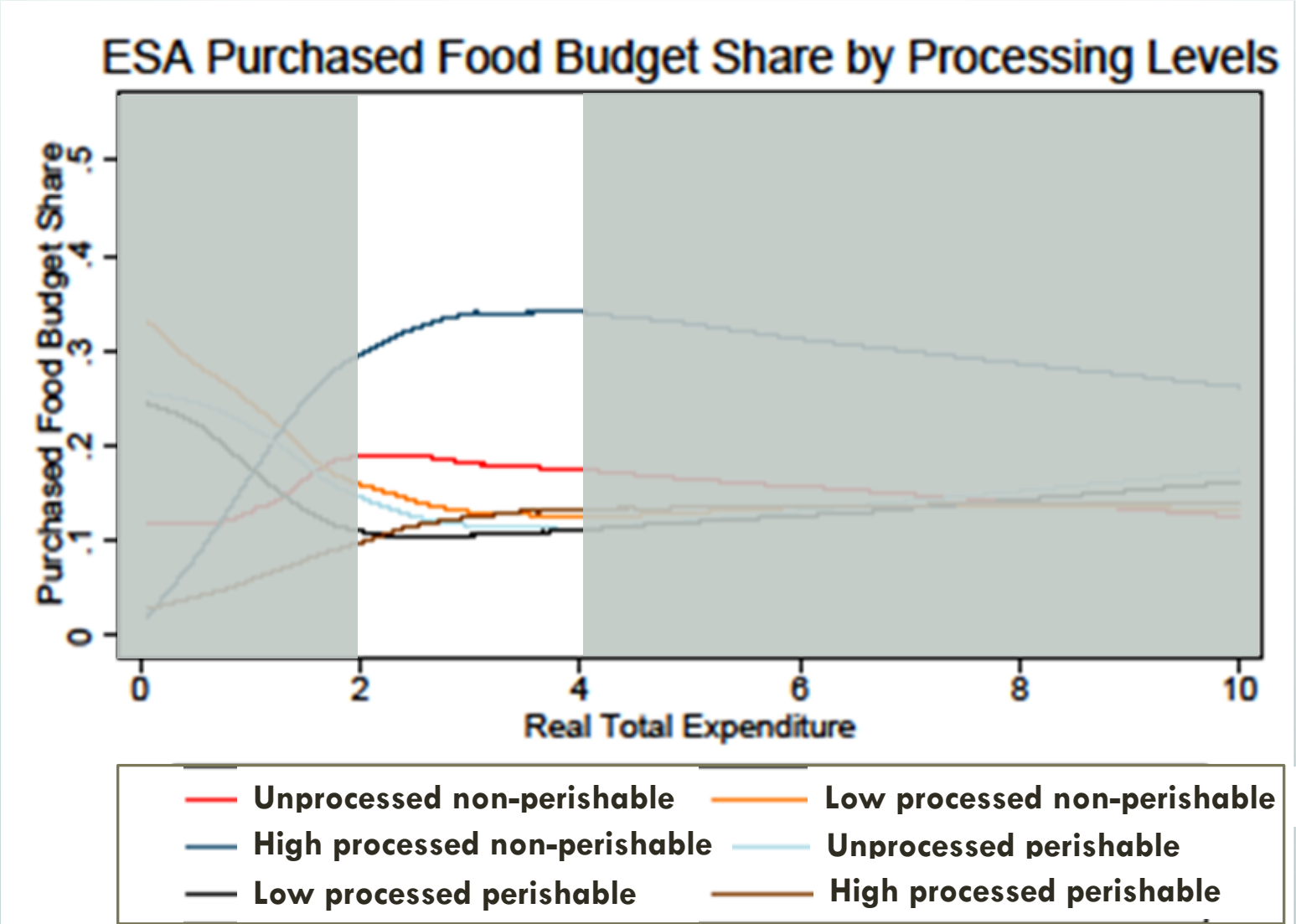
Source: Author calculations from LSMS data sets

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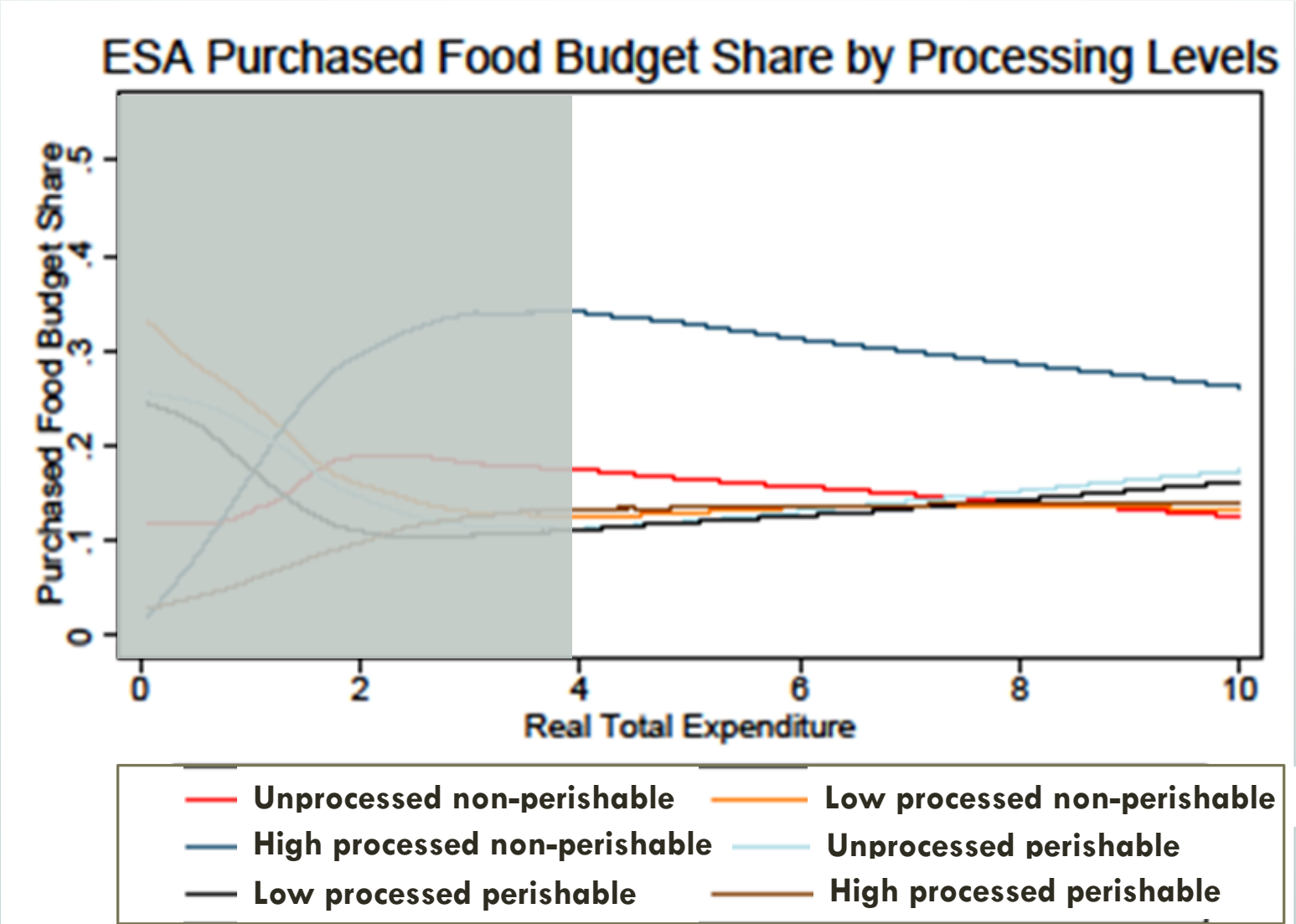
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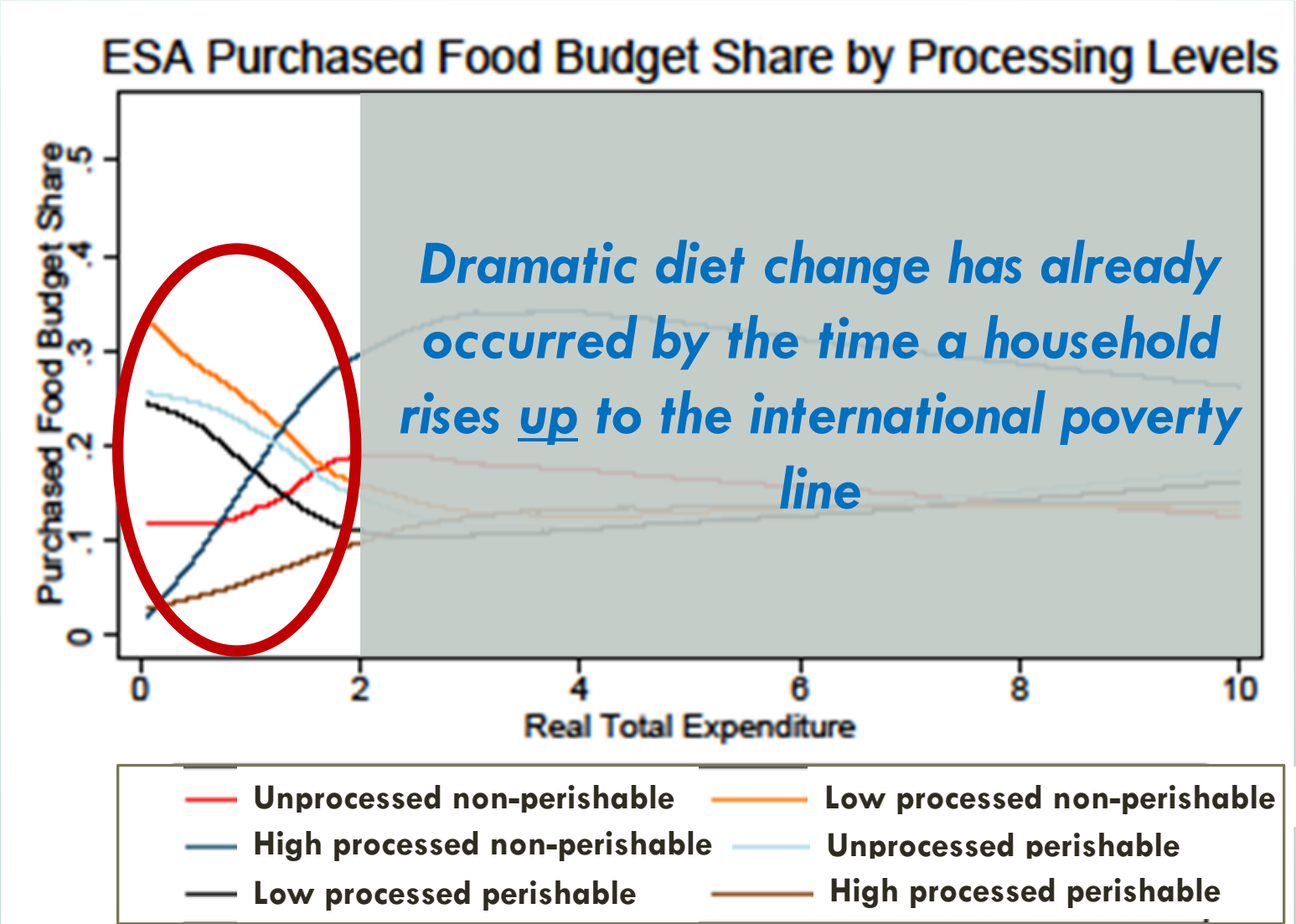
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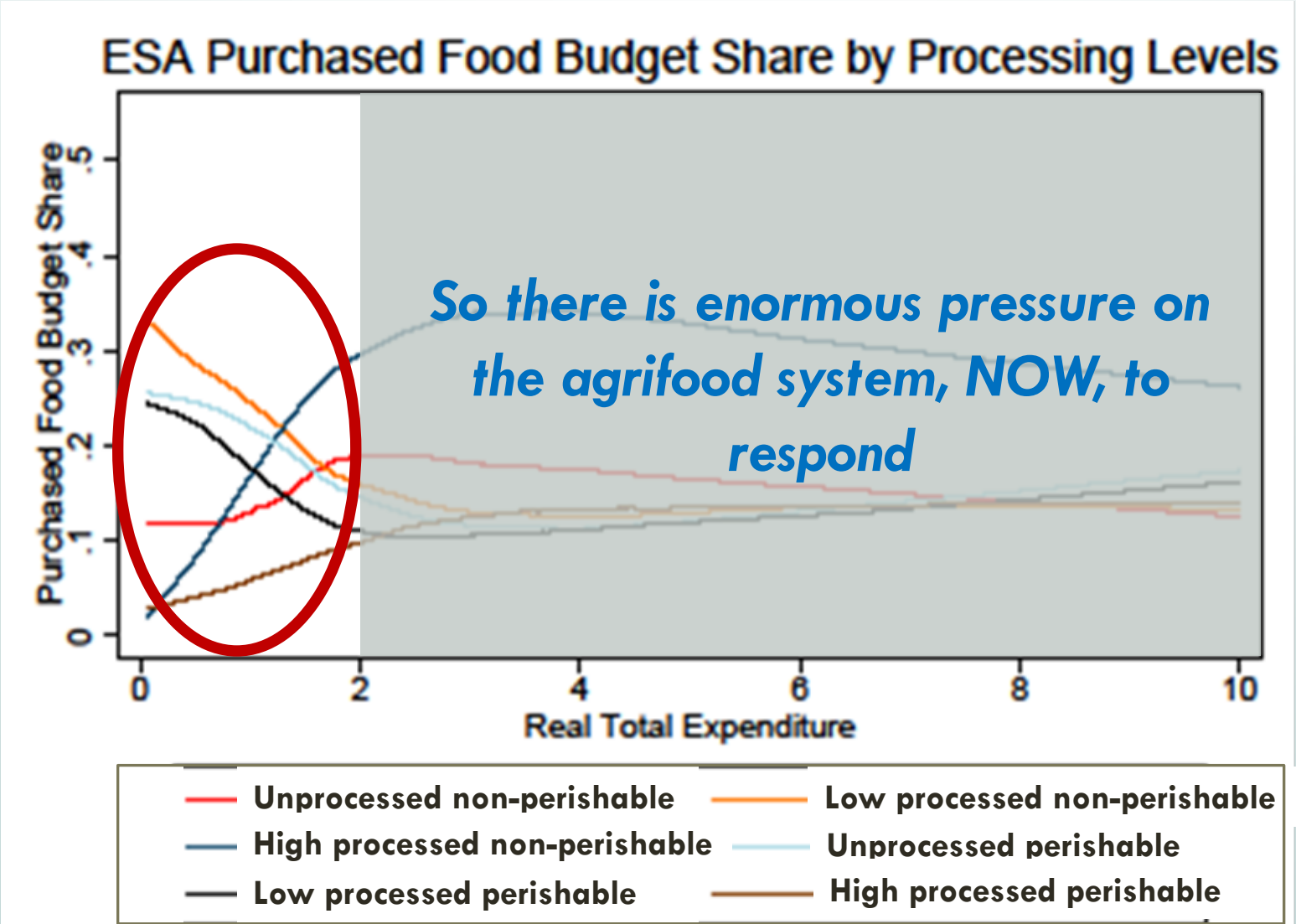
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Source: Author calculations from LSMS data sets

#3: URBAN DEMAND IS DRIVING THE TRANSFORMATION

- Urban demand now over 50% of all food demand through markets in East and Southern Africa
 - The least urbanized area of the continent
 - Up to 70% and 80% elsewhere
- Huge agribusiness opportunities
 - Growth up to 8x over 30 years for some processed & perishable foods
- Especially secondary and tertiary cities
 - About 60% of urban population, growing rapidly

#5: LOCAL DEMAND AND SUPPLY DOMINATE

- About 90% of all food is from local production
- And reliance on imports is not systematically rising, even in Africa

#6: CITIES ARE NOT ADEQUATELY PREPARED

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#6: SUPERMARKETS ARE NOT SOLVING THE PROBLEM

- Cleaner, safer cheaper ...
- Rapid growth ...
 - from a small base
 - And in an urban planning vacuum wrt food (Battersby, 2017)
- More processed: large impacts on consumption of processed food (Rischke et al, 2016) ...
- ... and on negative nutritional outcomes (Demmert et al., 2017)

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***The African food environment is increasingly
characterized by***

***purposeful manipulation of the food
environment by private sector***

combined with

absent or dysfunctional public investment

What we need to know
(an incomplete list!)

#1: HOW ARE LOCAL SMES RESPONDING TO THE HUGE AGRIBUSINESS OPPORTUNITIES?

- What is the level, structure, and spatial distribution of the local agribusiness response?
- Major implications for level and location of employment
 - Among Tanzanian millers:
 - smallest 20% of grain millers employ 1.5x more labor per unit output
 - Next smallest employ 6x as many

#2: ARE THESE SMES BAD FOR FOOD SAFETY AND QUALITY?

How does nutritional quality and food safety vary by:

- Imported vs. local products ?
- Firm size among locals?
 - Some concerned that SMEs are a major problem for food safety
 - A conundrum:
 - how to promote greater employment growth in agrifood system while safeguarding food quality and safety?

#3: HOW RAPIDLY ARE SUPERMARKETS TAKING OVER MARKET SHARE?

- Currently low in Africa and S Asia, higher in E and SE Asia
- The sector can grow very rapidly in total sales while growing very slowly in market share
 - Continuing role, for a long time, for the so-called traditional marketing system

#4: WHAT ARE THE OBESOGENIC FOODS AND HOW ARE THEY REACHING CONSUMERS?





We may be accustomed to thinking about the degradation of developing country diets as a product only of FDI, and packaged foods









Traditional prepared foods, and traditional market outlets, can be major elements of this problem

#5: HOW ARE AFRICAN FOOD ENVIRONMENTS CHANGING AND WHAT CAN BE DONE ABOUT IT?

Very little quantitative data

- This has to change in an ongoing way

Many helpful and potentially reasonable suggestions

- Global Panel, HLPE, others

Most of which depend on public investment and regulation

- Poorest countries (already experiencing the nutrition transition)
least able to do this

#5: HOW ARE AFRICAN FOOD ENVIRONMENTS CHANGING AND WHAT CAN BE DONE ABOUT IT? (2)

A strong expressed preference in Africa for local, healthy, even organic foods

- a completely casual observation!

Some of the key suggestions are in a sense narrow interventions that can have broad effect, especially if they can leverage latent demand

- Mandatory labeling, public campaigns

Others are far more complex

- Improving the built environment, regulating trade

None of these “solutions” are easy

The battle is primarily in the political economy and in people’s minds, and needs to be fought there

What lessons to take from Ghana, Brazil?

Thank you