

Decision-Making Under Uncertainty: Sustainable Diets and Conditions of Scarcity or Abundance

Parke Wilde

Sustainable Diets, Food, and Nutrition: A Food Forum Workshop

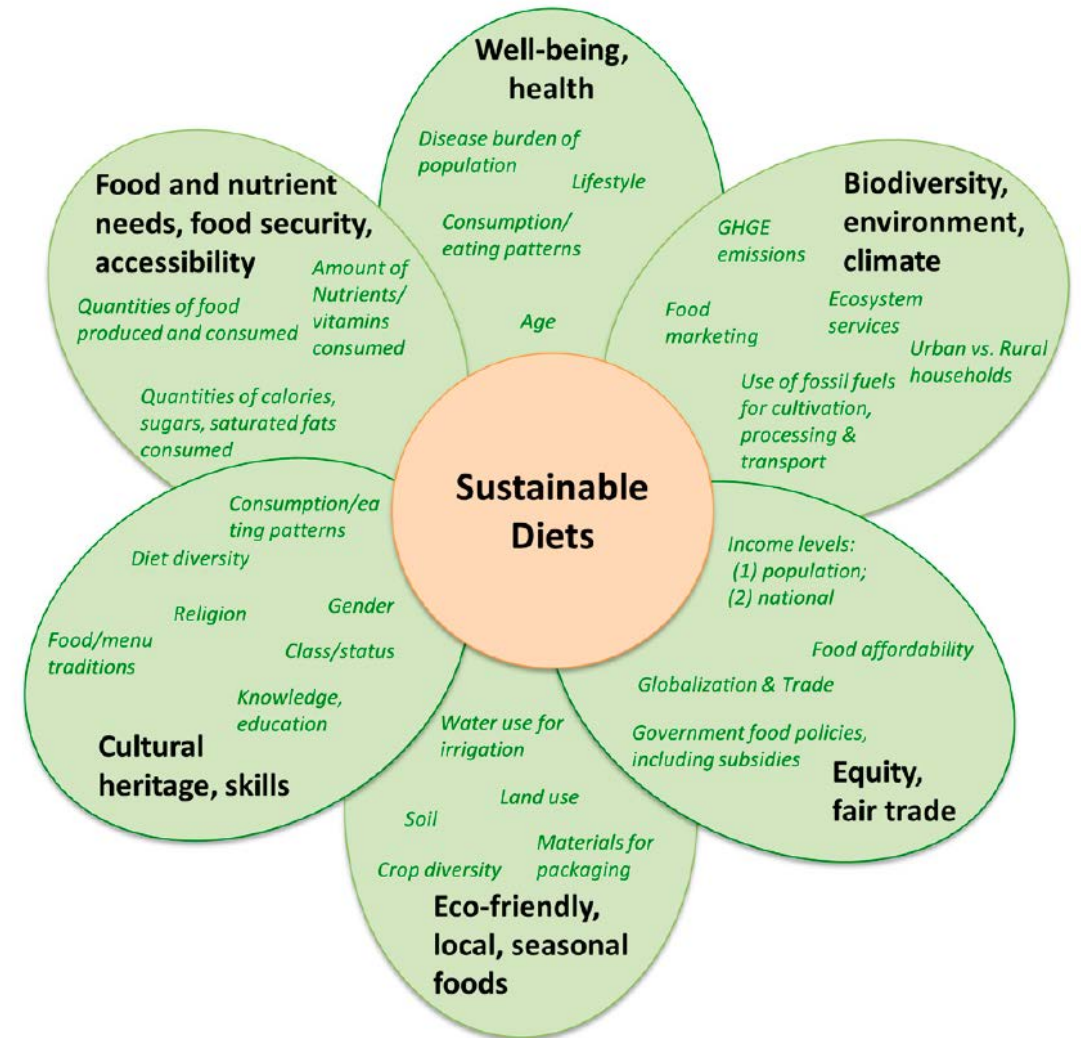
National Academies

Washington, DC

August 1, 2018

Sustainable diets are **multi-sectoral**.

- Public health nutrition
- Environment & climate change
- Food consumers
- Supply chains and food waste
- Farmers and food producers
- Poverty reduction



Source: Johnston, Fanzo, Cogill, 2014; Lairon, 2012.

Sustainable diets are **contentious**.

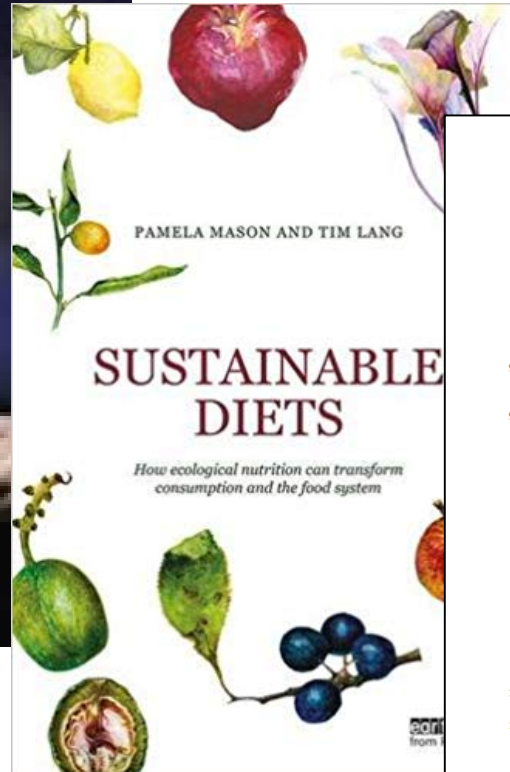
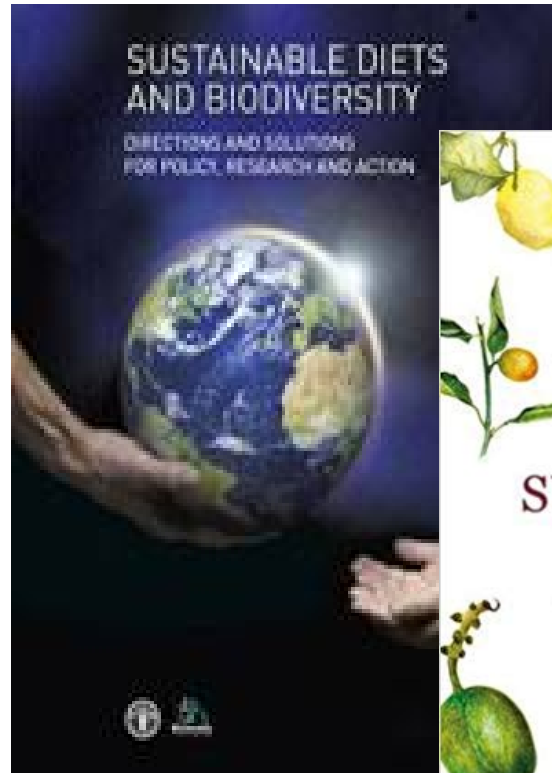
- Dietary guidelines
- Food labeling rules
- Carbon taxes
- Farm subsidies
- New agricultural technologies
- Agricultural conservation
- Water allocation

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How can these sectors
talk to each other?

1. Workshops and documents.



The National Academies of
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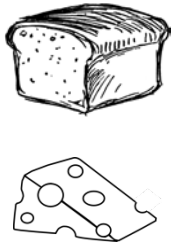
Sustainable Diets, Food, and Nutrition:
A Food Forum Workshop
August 1-2, 2018
The National Academy of Sciences Building, Lecture Room
2101 Constitution Avenue, NW, Washington, DC

DAY 1, August 1, 9:00 AM – 4:00 PM

- 9:00 AM Welcome & Opening Remarks
Sylvia Rowe, Food Forum Chair, SR Strategy, LLC, Washington, DC
- 9:05 AM SESSION 1: What are Sustainable Diets?
Session Moderator: Fergus Clydesdale, University of Massachusetts, Amherst
- The Dimensions of Sustainability**
Adam Drewnowski, University of Washington
- Implications and Relevance of Sustainable Diets Internationally: It's All About the Context**
Jessica Fanzo, Johns Hopkins University, Food and Agriculture Organization of the United Nations
- Decision-Making Under Uncertainty: Sustainable Diets for Conditions of Scarcity or Abundance**
Parke Wilde, Tufts University
- 30-minute Moderated Discussion/Q&A
- 10:35 AM 15-MINUTE BREAK
- 10:50 AM SESSION 2: Measurement and Analysis of Sustainable Diets from Production to Consumption
Session Moderator: Diego Rose, Tulane University
- Mapping Food Supply and Demand: Data Inputs, Metrics and Measures**
Ashkan Afshin, Institute for Health Metrics and Evaluation
- Dietary Patterns Link Human Health and the Environment**
David Tilman, University of Minnesota
- What Makes for Food Systems that are Sustainable and Resilient?**
Mark Rosegrant, International Food Policy Research Institute
- 20-minute Moderated Discussion/Q&A

2. Food labels such as eco-labels.

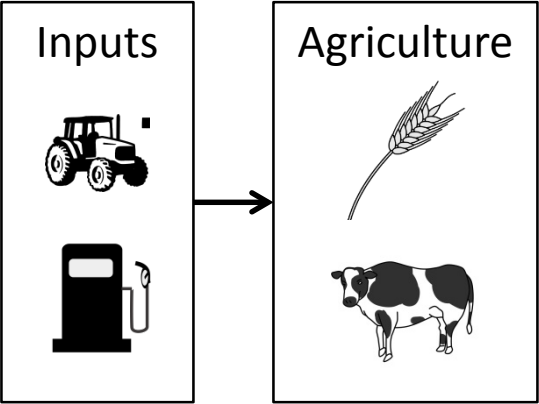
Manufacturing



Consumers



3. Checklists for production standards.



Food Safety Inspection Checklist

C-020

Standard Operating Procedure's (SOP)

Use this checklist daily, monthly, semiannually, or annually →

Indicate the Inspection Period Below

Business Name	Store #	Daily	Monthly	Semiannually	Annually

Inspectors Name	Date of Inspection	Time of Inspection

Instructions: This checklist can be used daily, monthly, semiannually or annually. Allow plenty of time to properly do this inspection based on your business size. It could take up to 1 hour to several hours to conduct this inspection. Be thorough and detail orientated.

The purpose of this form is to identify potential food safety issues in your restaurant or bar. If the food safety issue poses a direct health threat to your customers or staff members, then it should be corrected immediately, and then documented.

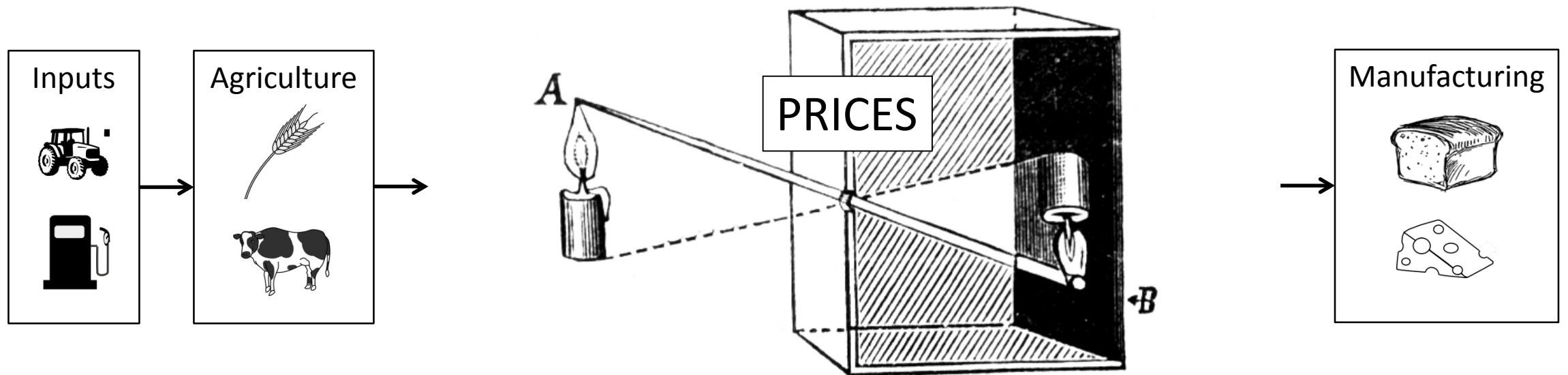
PERSONAL/WORK STATION HYGIENE

	Yes	No
Employees are to wear the proper uniforms per company standards. Shirts or polo's tucked in and are they wearing belts and socks.		
Employees must wear hats, hair nets and beard nets if they are preparing food or serving food in the kitchen. This includes cooks, prep and dishwashers.		
Employees working in the restaurant or bar must wear black non- slip shoes.		
Employees should always wear clean and pressed aprons, especially in the view of your customers.		
Males and females fingernails are trimmed: No artificial nails or nail polish. Neutral nail polish only.		
Hands are washed frequently.		
Gloves are worn if the employee is cooking, prepping or serving food to your customers.		
Hand washing signs are posted near all hand wash sinks and bathrooms.		
Soap and single ply paper towels or air dryer machines are available near all hand sinks, especially in both restrooms.		
Trash receptacles are available near all hand sinks and restrooms.		
Employees are permitted to wear one ring, such as a wedding ring and a watch and no bracelets.		
Eating, drinking, chewing gum, smoking, or using tobacco is allowed only in designated areas away from preparation, service, storage, and dishwasher area.		
Employees are in good health.		
When employees cough or sneeze, they are to immediately wash their hands.		
Quiz one employee at the front of the house and one employee in the back of the house in the proper handwashing procedures.		
Wash hand vigorously using hand soap under running water (110°F) from elbows to hand for 20 seconds. Use single ply paper towel to dry hands and use single ply paper towel to turn off the faucet. Use a fingernail brush to clean under fingernails. You can use an air dryer blower instead of a paper towel to dry hands. Make sure the heat from the blower is at least 110°F.		
Front of the house employee _____	Pass: Yes _____ No _____	
Back of the house employee _____	Pass: Yes _____ No _____	



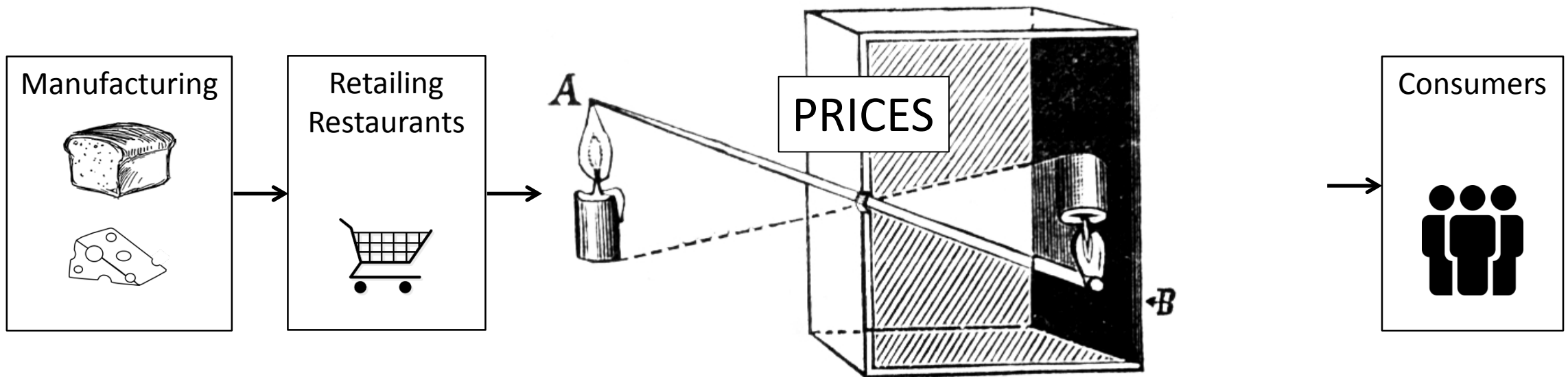
4. Prices.

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Source: Wikimedia commons.

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Source: Wikimedia commons.

What do prices reveal about sustainable diets?

- How much healthy food costs for consumers
- Revenue for farm owners and operators
- Wages for farm laborers
- Global scarcity and abundance

The **price context** affects sustainable diets.

	With High Food Prices	With Low Food Prices
Affordable food for consumers.		Good
Politics of land conservation.		Good

The **price context** affects sustainable diets.

	With High Food Prices	With Low Food Prices
Affordable food for consumers.		Good
Politics of land conservation.		Good
Livelihoods for farmers.	Good	
Incentive to reduce food waste.	Good	
Investments in alternatives to meat.	Good	

Farm labor, competition, and tomato prices

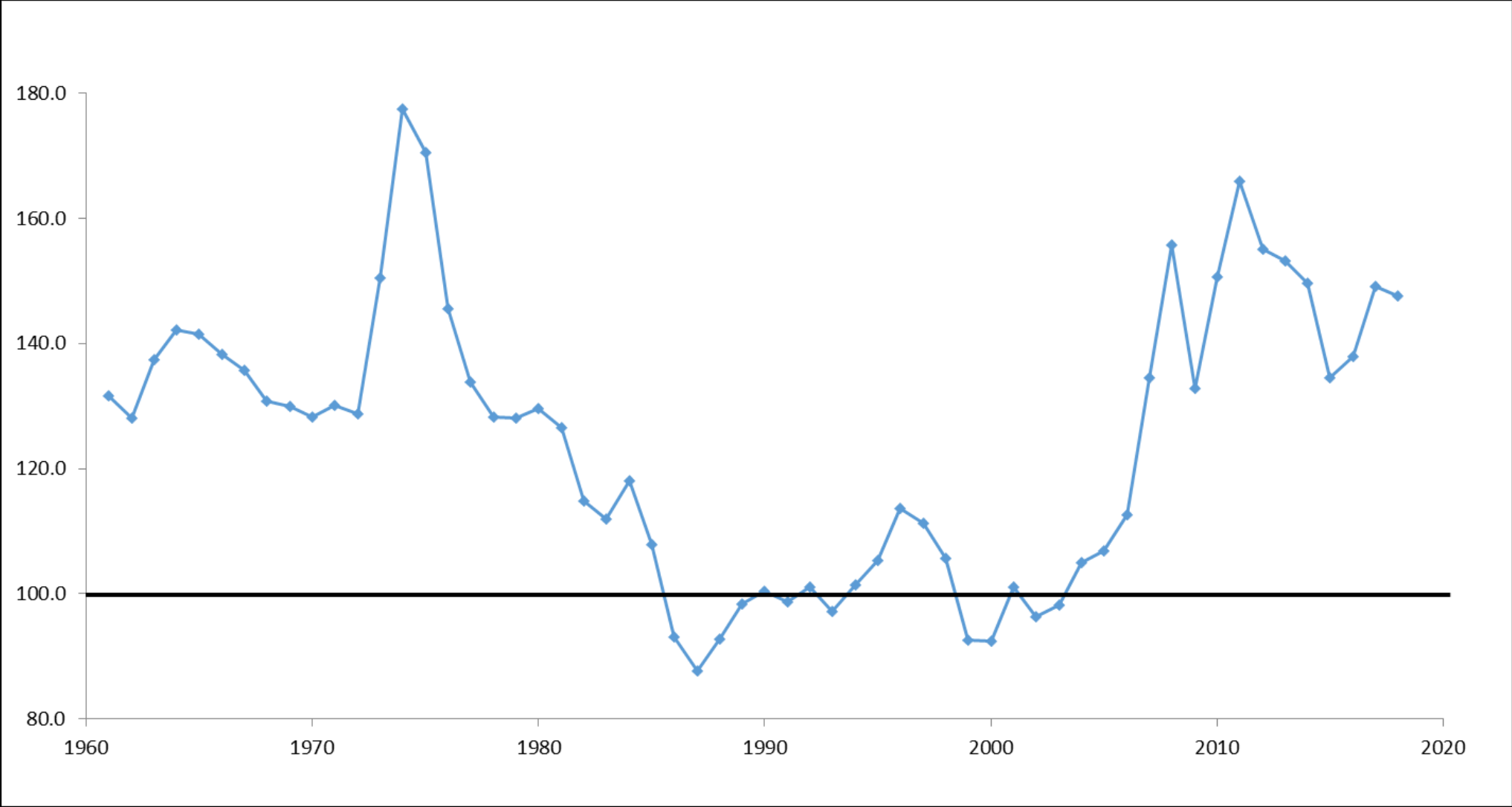


Wilde, 2018.

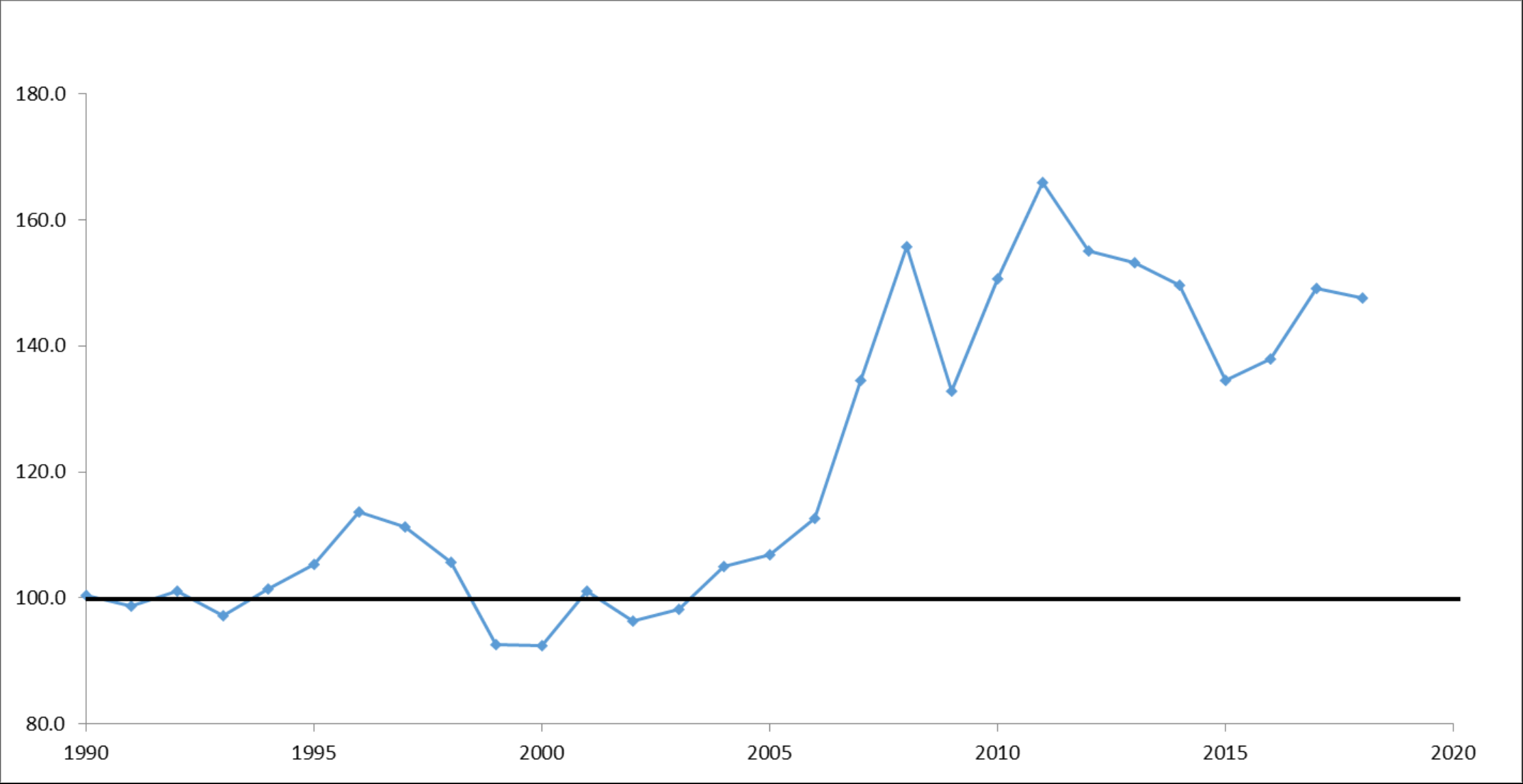
Coalition of Immokalee Workers (March, 2018)

What is the **history** of food prices?

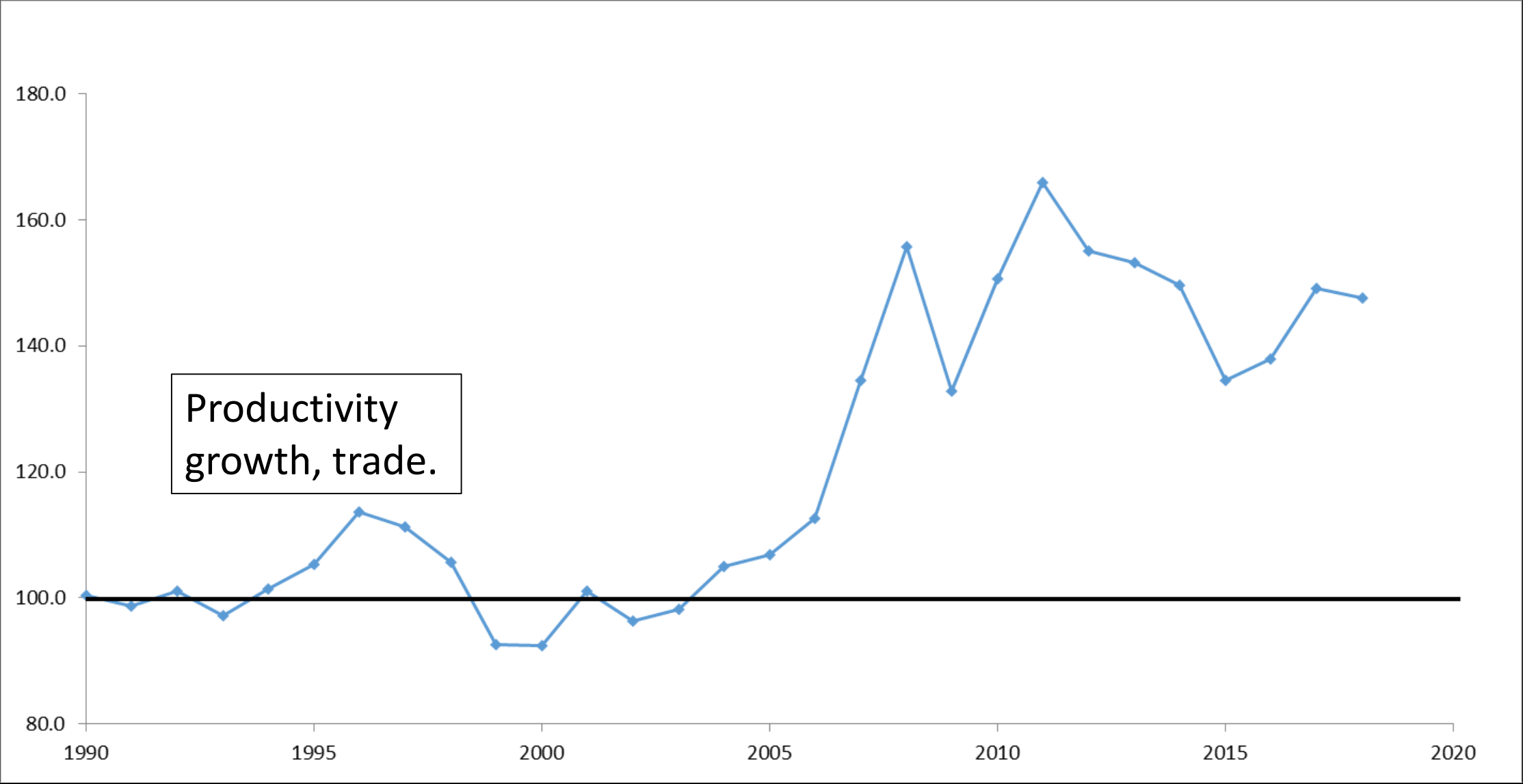
FAO Food Price Index (Deflated). Long-term.



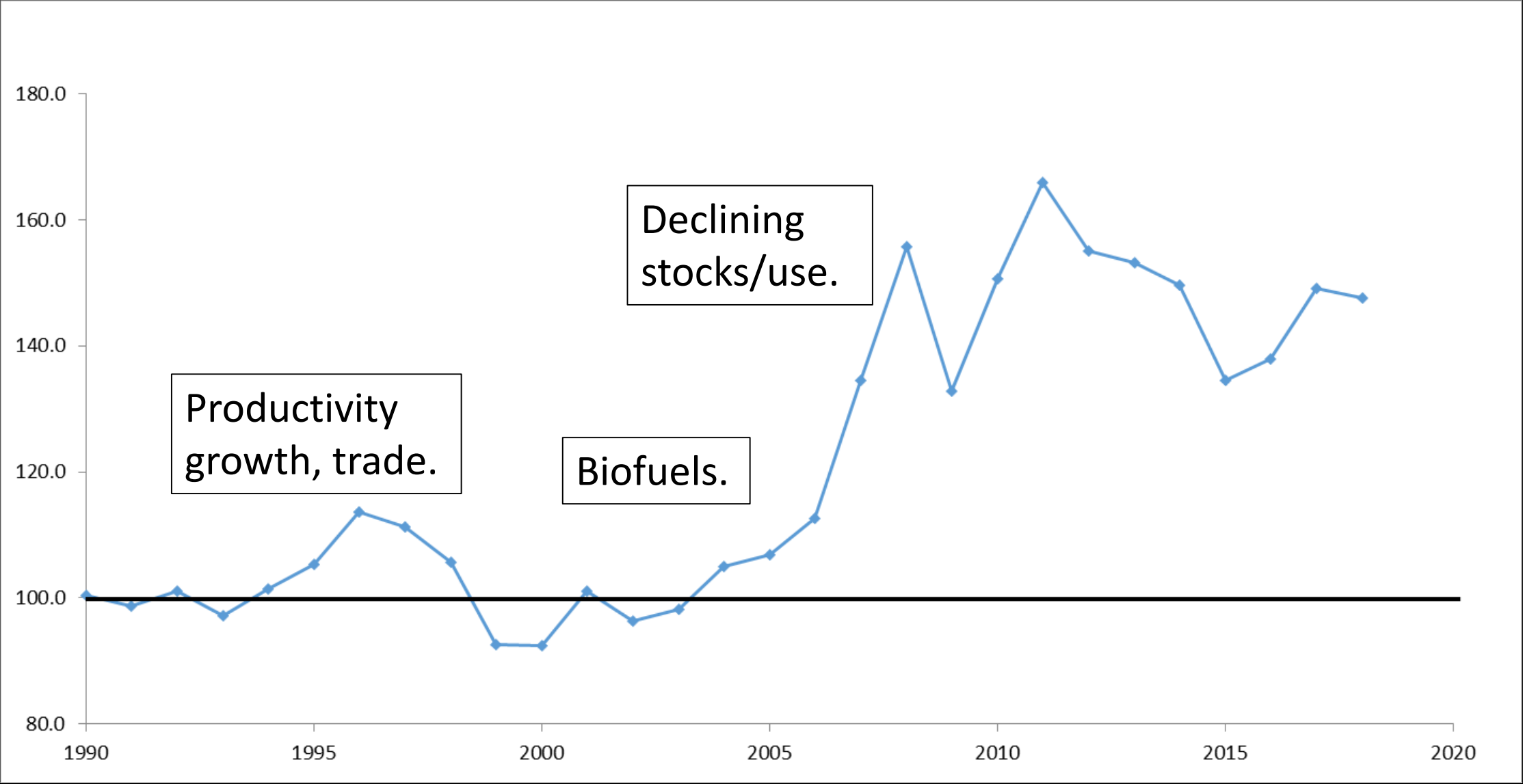
FAO Food Price Index (Deflated). Recent.



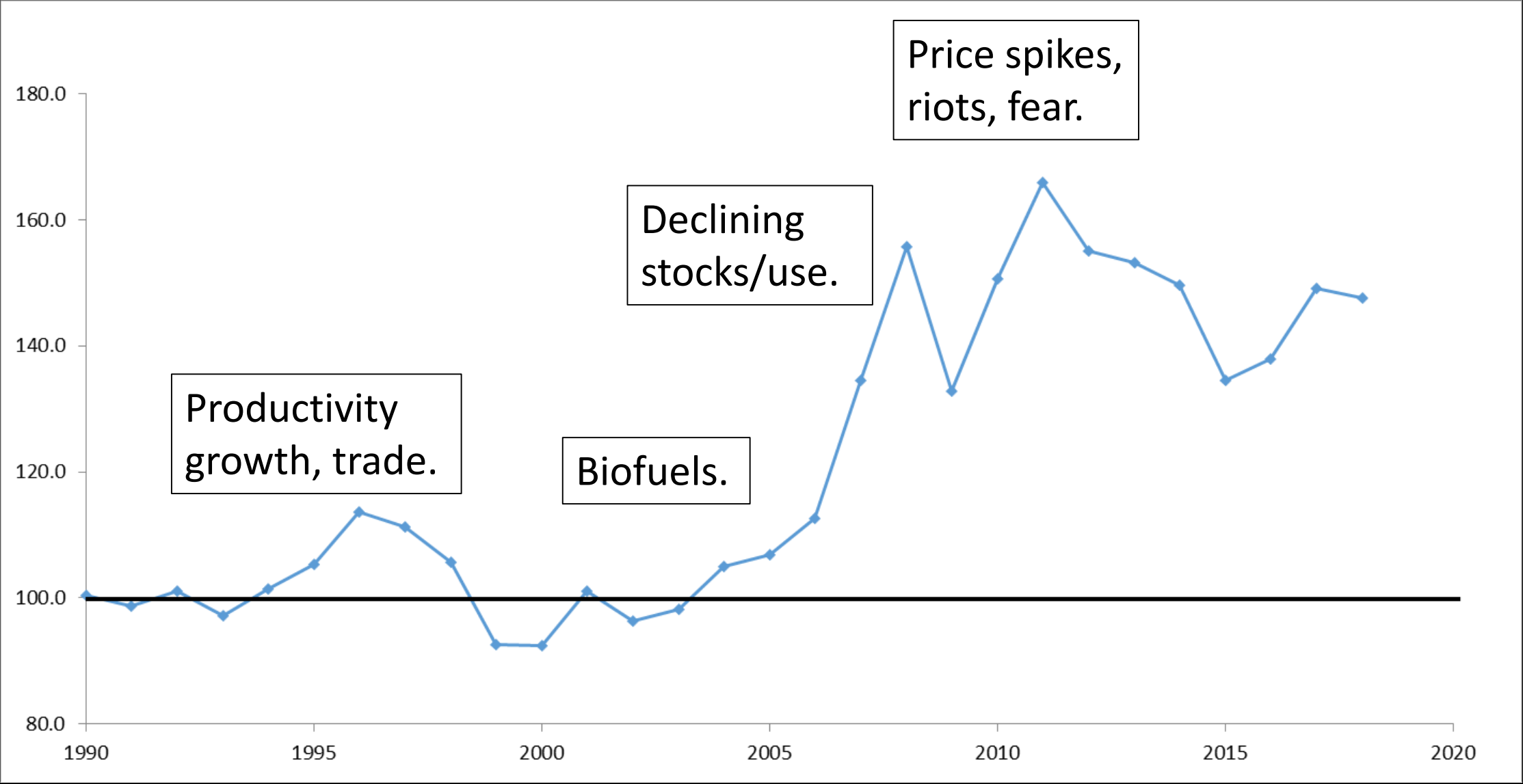
FAO Food Price Index (Deflated). Recent.



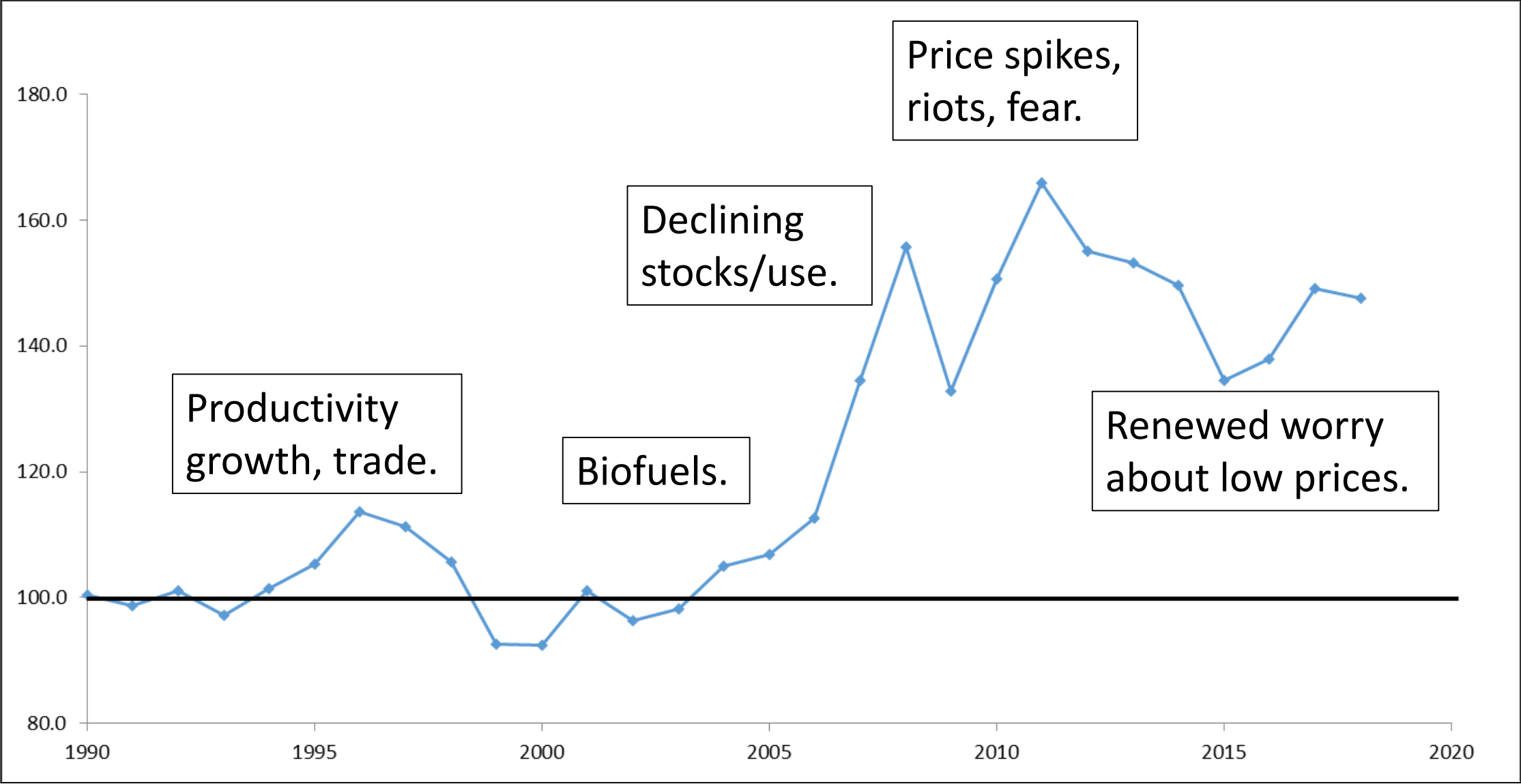
FAO Food Price Index (Deflated). Recent.



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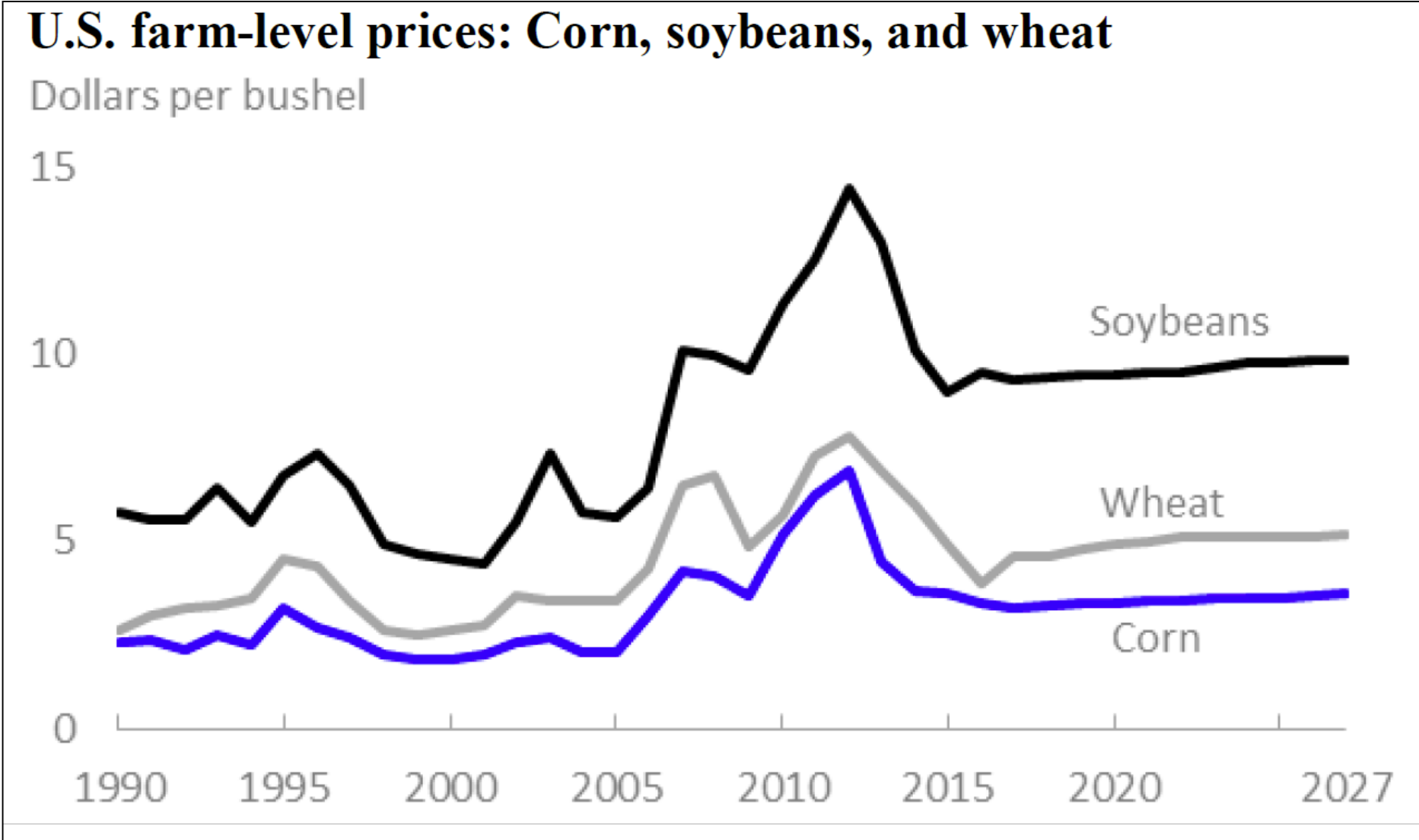


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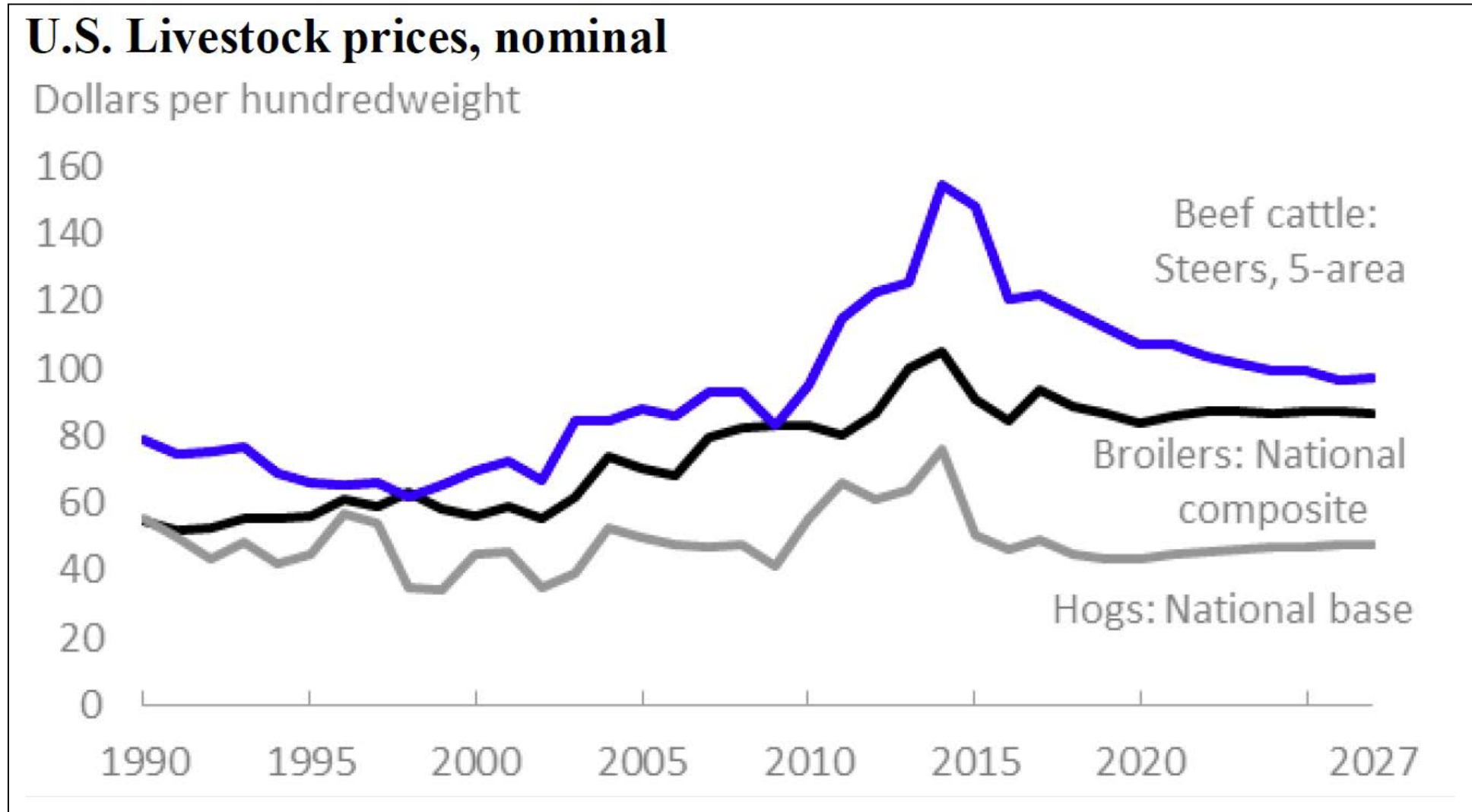
What is the **future trajectory** of food prices?

USDA Projections to 2027



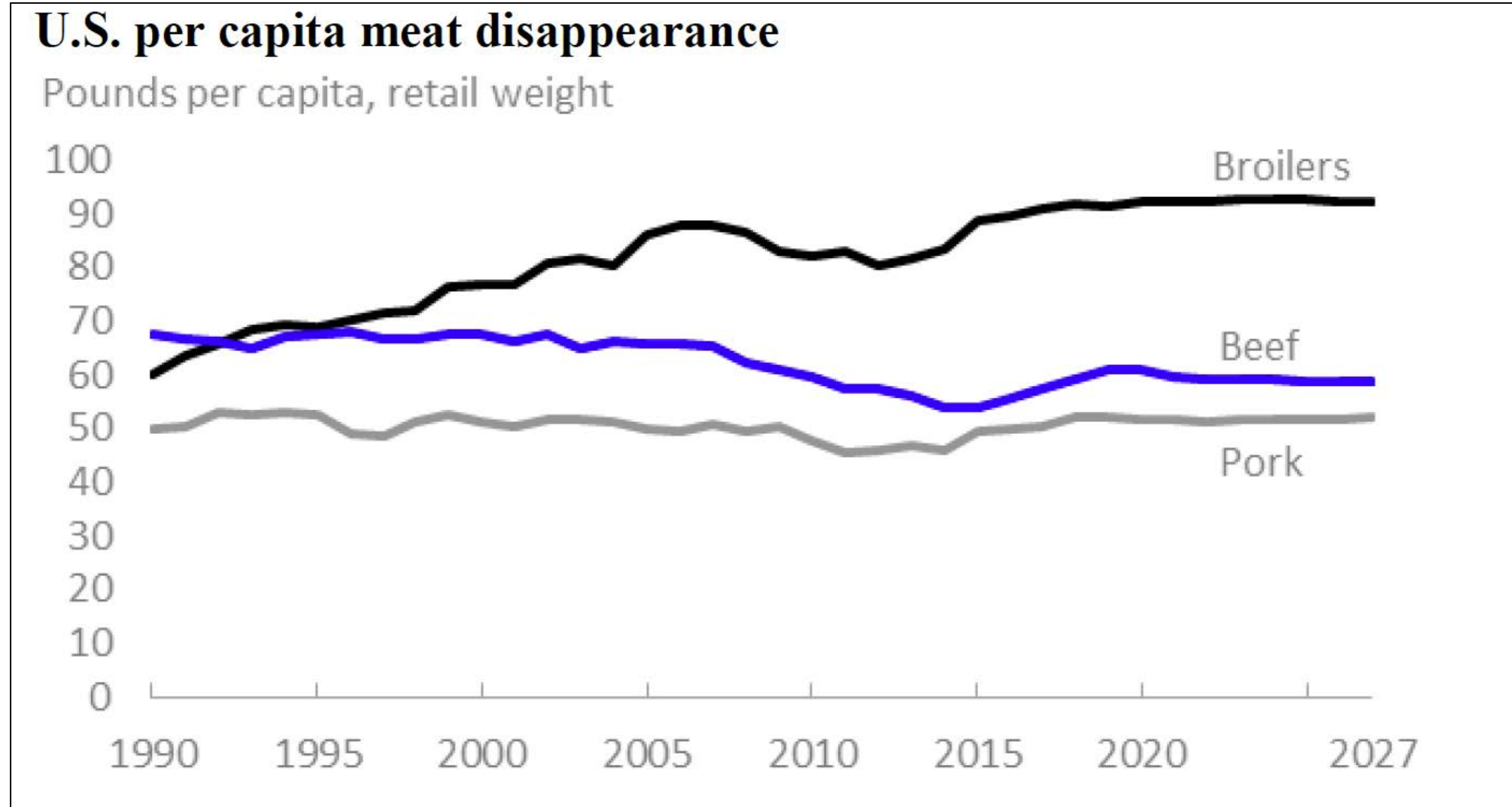
Source:
USDA, 2018.

USDA Projections to 2027



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USDA, 2018.

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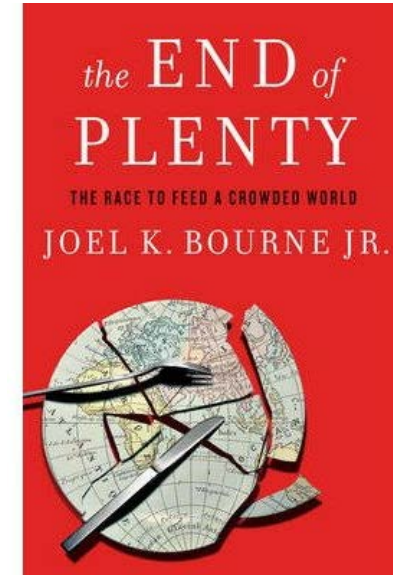
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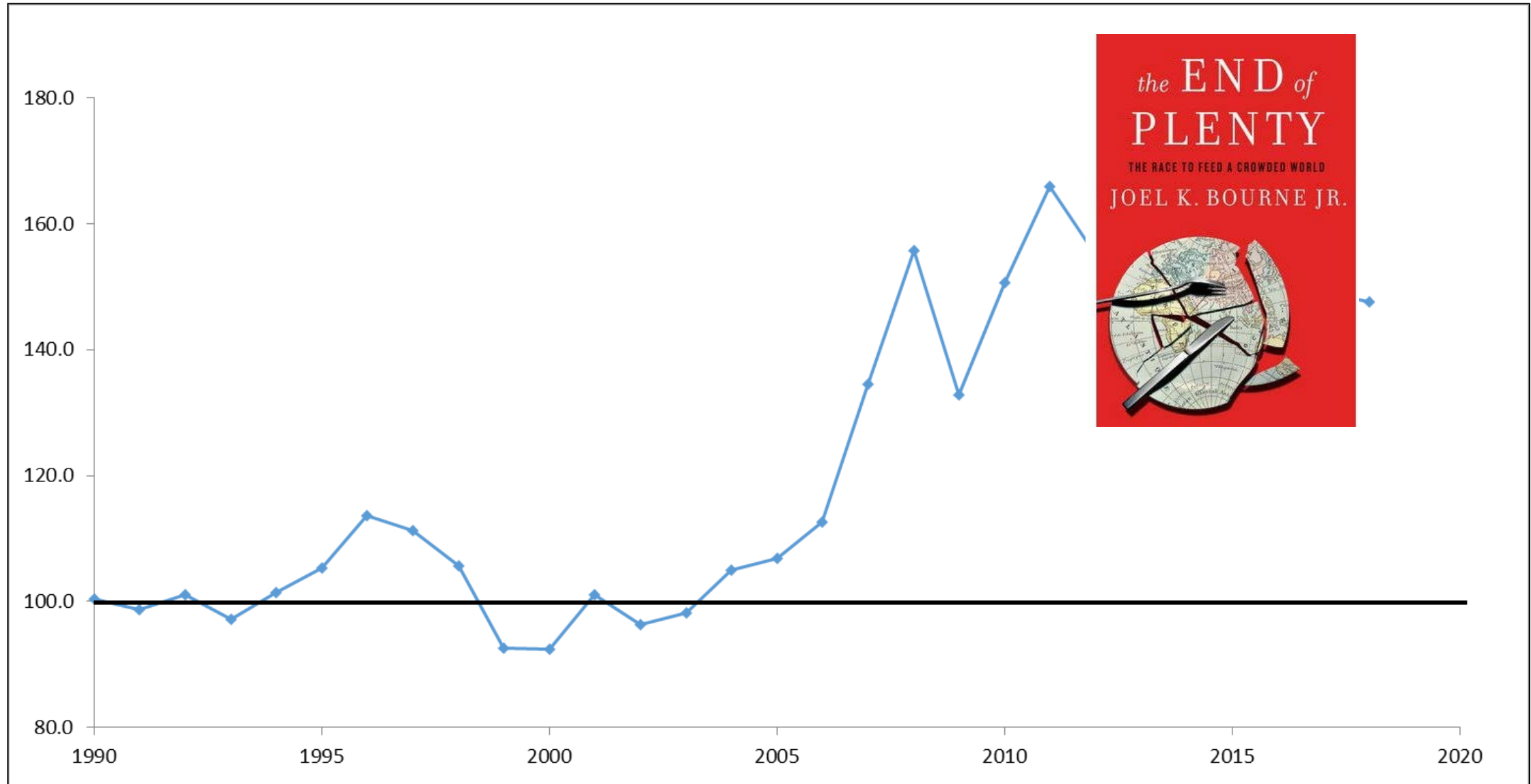
Assumptions

- Economic growth: 2.1% (U.S.), 3.7%-4.6% (developing)
- Population growth: <1% (global), 1.1% (developing)
- Energy prices: \$80/barrel
- Agricultural policy: not much changed, but payments rise
- Biofuels: rising first then falling
- Trade: current agreements stay in place
- Climate change: no mention of “climate,” “warming.”

The End of Plenty (Joel Bourne, Jr., 2015)



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Sustainable Diets: Food Prices and Resilience

- Focus on the fundamental goals:
 - Environmental quality
 - Healthy eating
 - Thriving economy
 - Low hunger and poverty
- Let prices be prices.
- Pursue a sustainable diets strategy that is braced for conditions of both scarcity and abundance.