

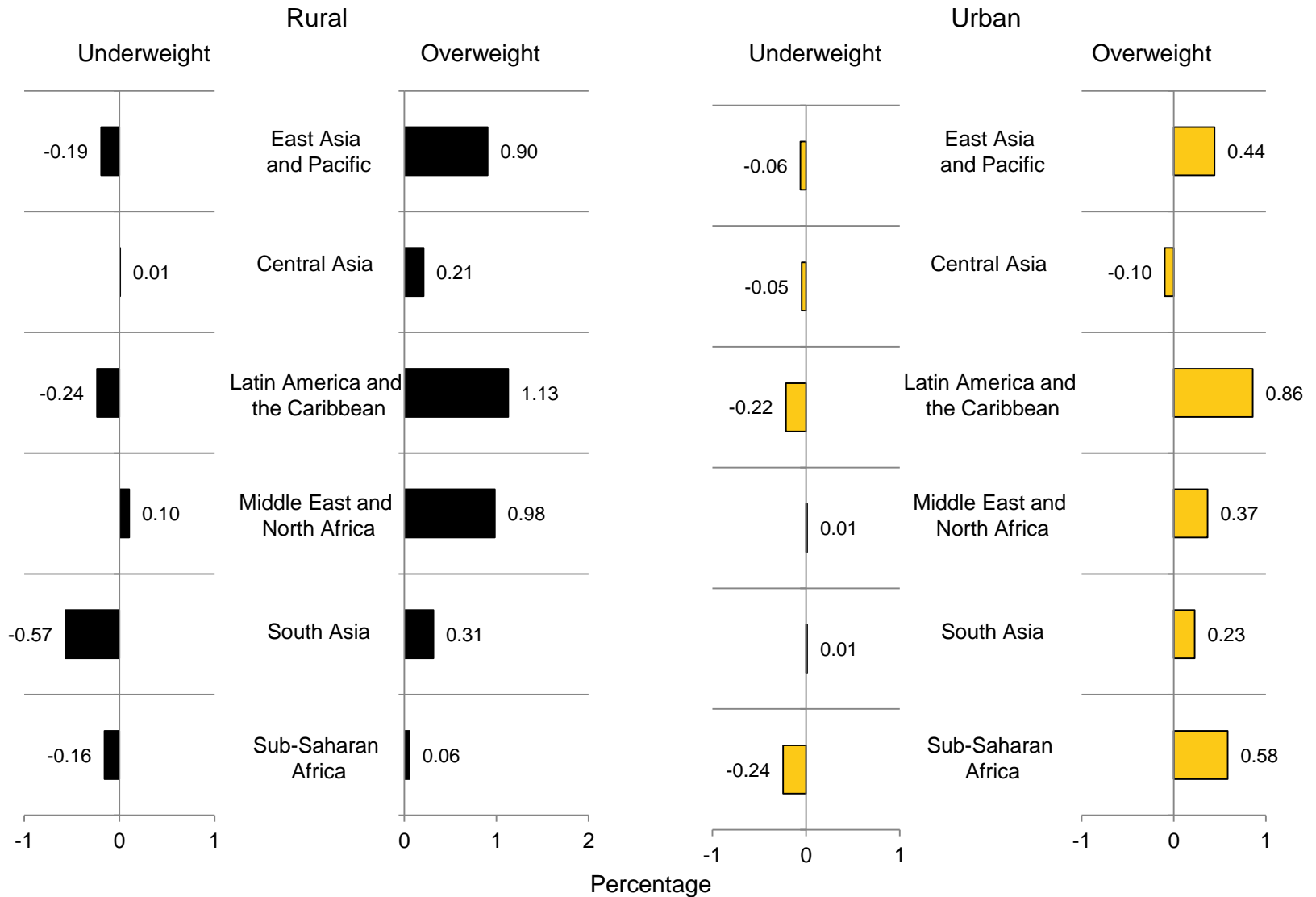
# Sources of Major Global Dietary Shifts

- **Global increases in:**
  - Caloric sweetener use, especially in beverages
  - animal source foods
  - refined carbohydrates, ultra refined foods
  - snacking, away-from-home eating, precooked food
- **Global decreases in:**
  - legumes, vegetables, fruits in most LMIC countries
  - food preparation time
- **Only in Low and middle income world:** increased edible oil use and food frying. Probably the largest shift in the 1980-2012 period of any major food group.

*“close to 2 billion people overweight”*

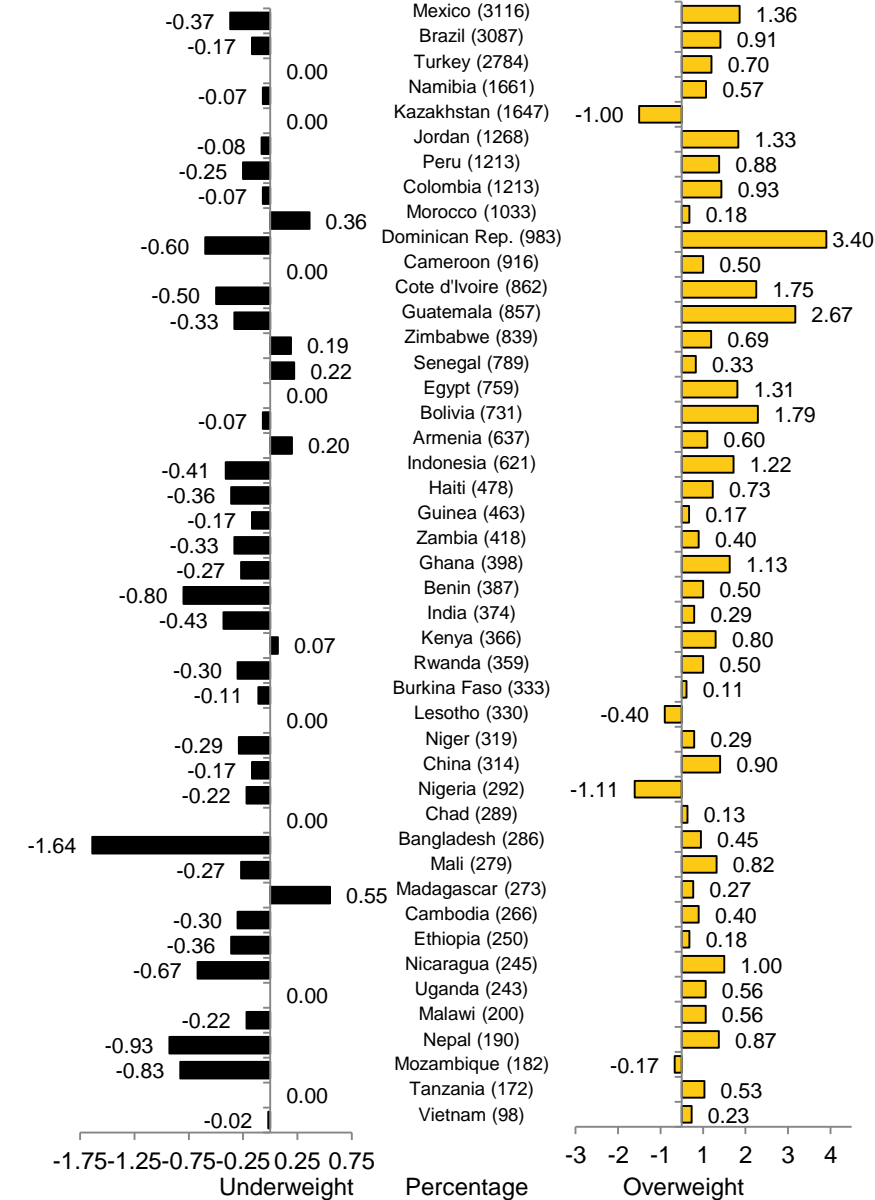


# Women Aged 19-49. Regional Population-Weighted Percent Underweight, Overweight, and Annualized Change–1990's 2000's, Rural/Urban

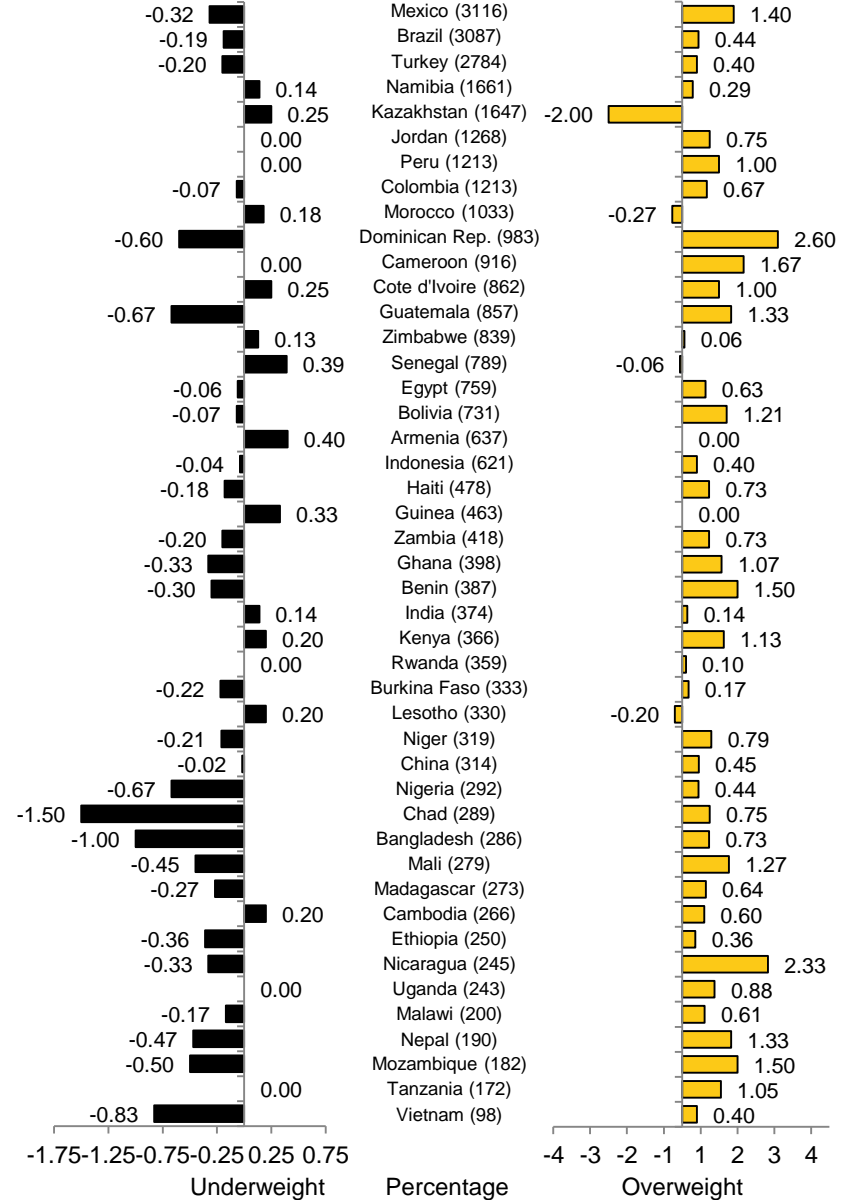


# Annualized Change in the Prevalence of Overweight and Underweight 1990's-2000's Sorted by GNP per capita\*

## Rural Country (GDP)



## Urban Country (GDP)



# South Korea

- Prior to WTO, closed off from trade, taught all women getting married to cook with traditional methods[very high vegetable intake, low fat].
- Very low overweight/obesity relative to GNP
- After WTO, starting to see major diet shifts toward more processed, packaged foods and beverages, increased overweight

*“close to 2 billion people overweight”*



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# Mexico—short history leading to recent events

- 2000's: started looking not only at undernutrition but overweight and obesity (Bellagio paper-nutr. Transition)
- Beverage panel-Min of Health 2008, major support medical societies
- Gov't developed national agreement health nutrition
- Min Educ and Health—with industry and academia fighting got major school food/beverage guidelines 2011
- 2012 front of package labeling panel
- Marketing industry self-regulation
- Lost several 20% SSB tax votes prior to bloomberg funding and major civil society push across the country forced conservative gov't to push for smaller 10% SSB tax, added unexpectedly by Min of Finance 8% junk food tax. Start Jan. 2014

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# Key issues related to the future

- Accelerated overweight, BMI and waist circumference shifts in LMIC's
- LMIC's are leading in large-scale regulatory changes now with rapid shifts being seen.
- Retail sector growth enormous-convenience stores and supermarkets and mega markets in LMIC's: good and bad sides
- Nature of agriculture is being driven by retailers, many shifts. E.g documented for Bangladesh, India and China for huge shifts from farmer to middle man to processors now very much integrated directly into agrobusinesses, retailers, etc
- Obesogenic environment: the LMIC environment makes that of the US and UK look healthy in many cases

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