

Discussion of “Commodity Price Booms:
Macroeconomic and Distributional Implications”
by Mendes-Tavares, Peralta-Alva, and Telyukova

Diego Restuccia
University of Toronto

IMF Washington DC– September 18, 2014

What MPT Do

- ▶ International price of food has increased by 50% in the last decade
- ▶ Question: what are the macro and distributional implications of this price increase on a small-open low-income economy
- ▶ Develop a rich model structure to study the implications of this price change and assess policy alternatives
- ▶ Model calibrated to micro data for Ghana
- ▶ Perform two experiments:
 - ▶ An increase in the international price of food of 50%
 - ▶ A policy that subsidizes domestic food prices by 5% (revenues from lump sum taxation to business)

What MPT Find

- ▶ A 50% increase in international food price generates strong distributional implications but direction of results depend on the elasticity of substitution of imported and domestic food
- ▶ The price change also generates a negative impact on aggregate consumption and output
- ▶ A subsidy to domestic food prices can partially undo the effect of the shock

Comments

- (1) MPT are to be commended for pursuing such an ambitious, difficult, and important question
 - ▶ Great to see quantitative macro applied to the issues of food security and income inequality in poor countries
 - ▶ Most quantitative macro literature on inequality has focused on rich economies, where incomes/earnings at the top 1% of the distribution has been emphasized
- (2) While a rich model structure may be required for this question, the paper could do more to motivate and justify many modelling choices, results could exploit more the given structure

Comments

- (3) How sensitive are allocations in poor countries to changes in international food prices?
- ▶ What are the key allocations to focus on?
 - ▶ Paper assumes perfect segmentation of occupation and sectoral choices, abstracting from changes in the allocation of labor across sectors, land across farm households, etc.
 - ▶ It can be argued these changes are key for development and not clear how sensitive they are to price changes (extreme example)
 - ▶ Paper could do more to motivate the importance of international prices for domestic consumers in poor countries, including subsistence farmers!
 - ▶ The elasticity of allocations to prices is likely to vary a lot across countries

Comments

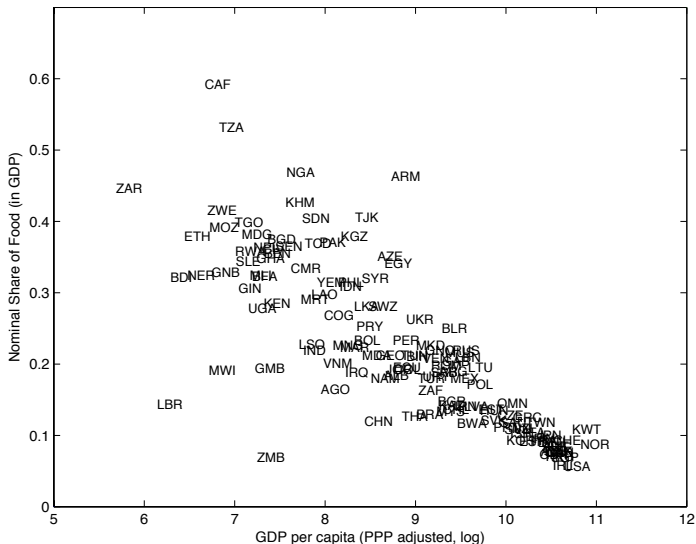
(4) Model abstracts from non-homothetic preferences

- ▶ Non-homothetic preferences are likely to play a role in the reaction of poor households to changes in prices/income
- ▶ Have been shown to be important in the allocation of time across sectors, across activities such as leisure, home production, and schooling, etc.

Comments

- (5) Calibration of λ (share of domestically produced food) and ρ (elasticity of substitution between domestic and imported food)
- ▶ Do not use poor country data to get these preference parameters, allocations are likely to be influenced by barriers and other distortions not in the model
 - ▶ Poor countries observe negligible trade flows in agriculture, but this may be a consequence of broad barriers to trade, including geographical dispersion of rural population, poor public infrastructure, etc.

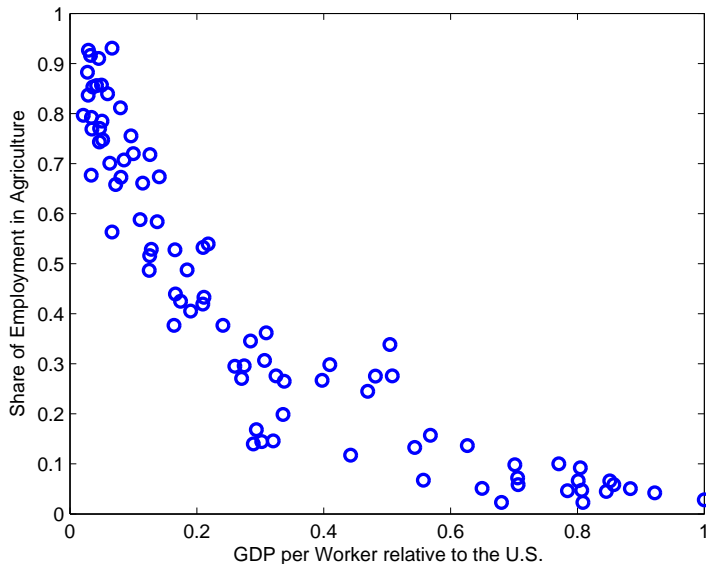
Share of Expenditures on Food across Countries



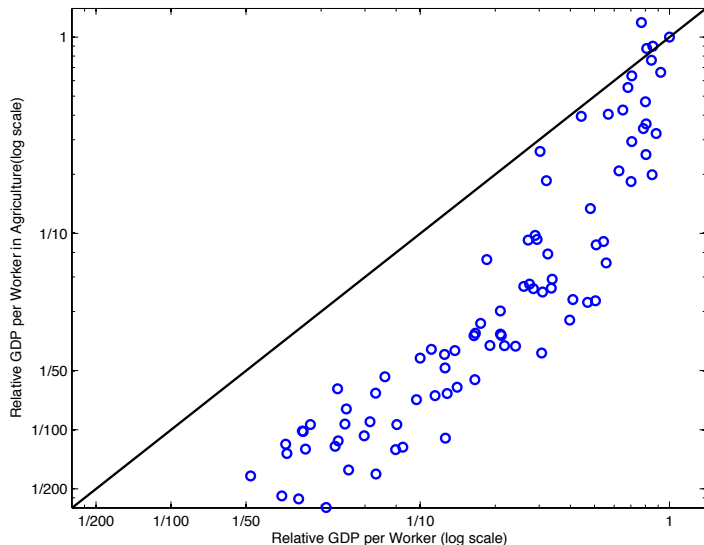
Limitations of the share of expenditure picture:

- ▶ Food prices are not the same as agricultural prices
- ▶ Most households in low income countries live and work in rural agriculture, produce close to subsistence levels, i.e., consume most of what they produce

Share of Employment in Agriculture across Countries



Labor Productivity in Agriculture across Countries

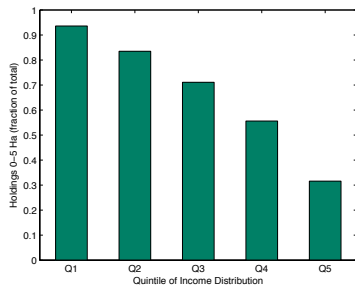


Different Perspective

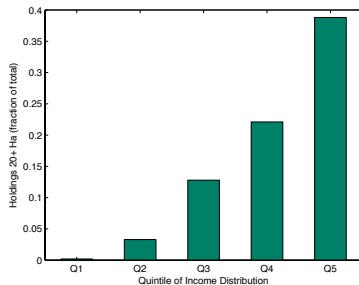
- ▶ Prices of agricultural goods are a factor of 7-fold higher in poor countries relative to rich, mostly a reflection of their low productivity in agriculture
- ▶ This dwarfs the 50% increase in international commodity prices
- ▶ Mitigating the international price gap requires reducing the productivity gap in agriculture across rich and poor countries
- ▶ To do so most often will involve poor countries eliminating established policies...
- ▶ What explains the productivity gap in agriculture? Farm size and misallocation of factors due to restricted land markets

Farm Size across Countries

Small Farms (<5Ha)



Large Farms (>20Ha)



Conclusion

- ▶ Excellent idea of bringing quantitative macro to study issues on inequality in poor countries
- ▶ Exploit micro data to connect better response of household choices to price changes
- ▶ Explore changes in sectoral allocations to connect better to recent quantitative work on macro development