



Rice Consumption: Changing Preferences and Implications for the Industry

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The Changing Role of Rice in Food Consumption in Asia

Year	Total Calories	Calories from Rice	Rice as % of Total
1961	1805	656	36.3
1970	2069	790	38.2
1980	2200	797	36.2
1990	2443	848	34.7
2000	2606	803	30.8
2007	2668	783	29.3

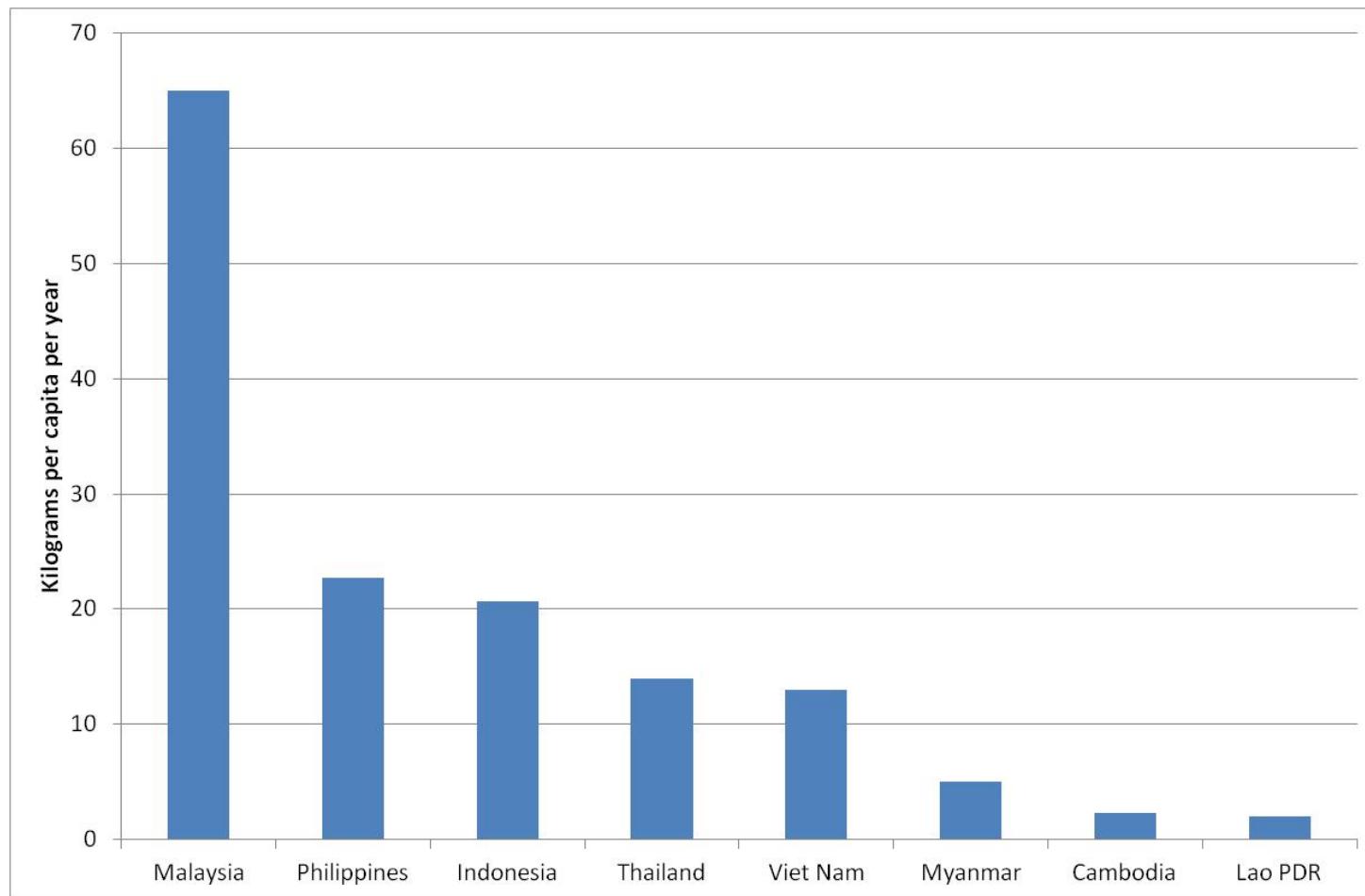
Average Annual % Increase/(Decrease)

1961-70	1.53	2.09	0.57
1961-90	1.05	0.89	(0.25)
1970-07	0.69	(0.03)	(0.71)
1990-07	0.52	(0.47)	(1.00)

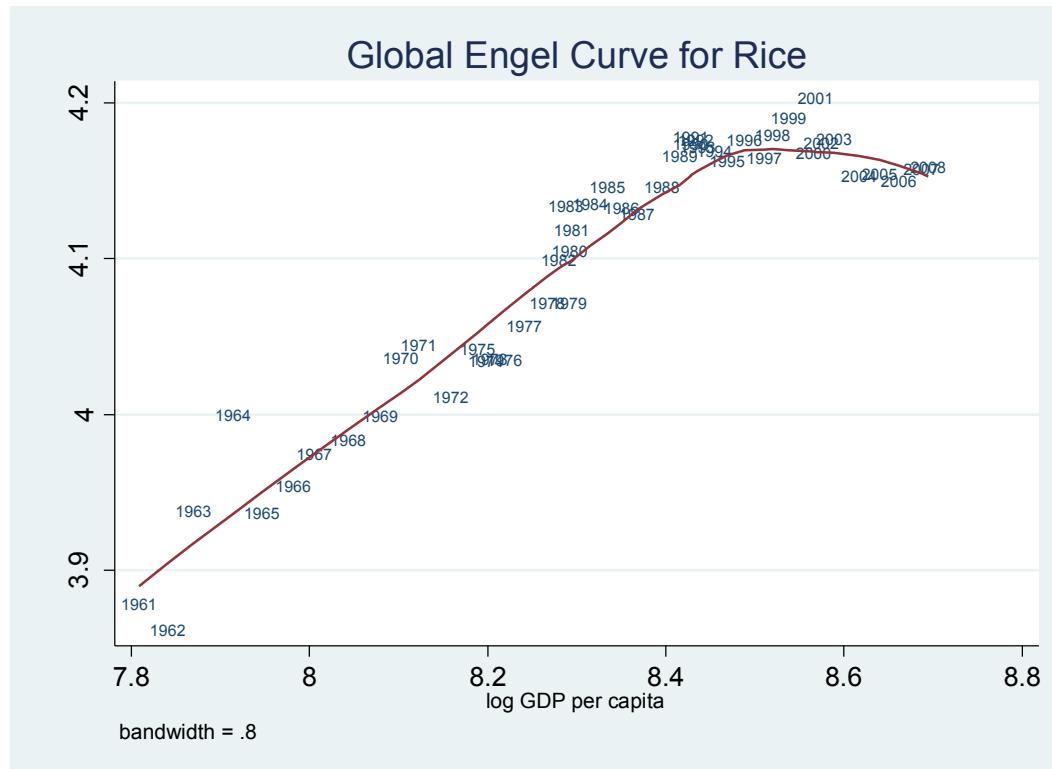
Source: Data from FAO Food Balance Sheets.

“Calories” are daily per capita energy available.

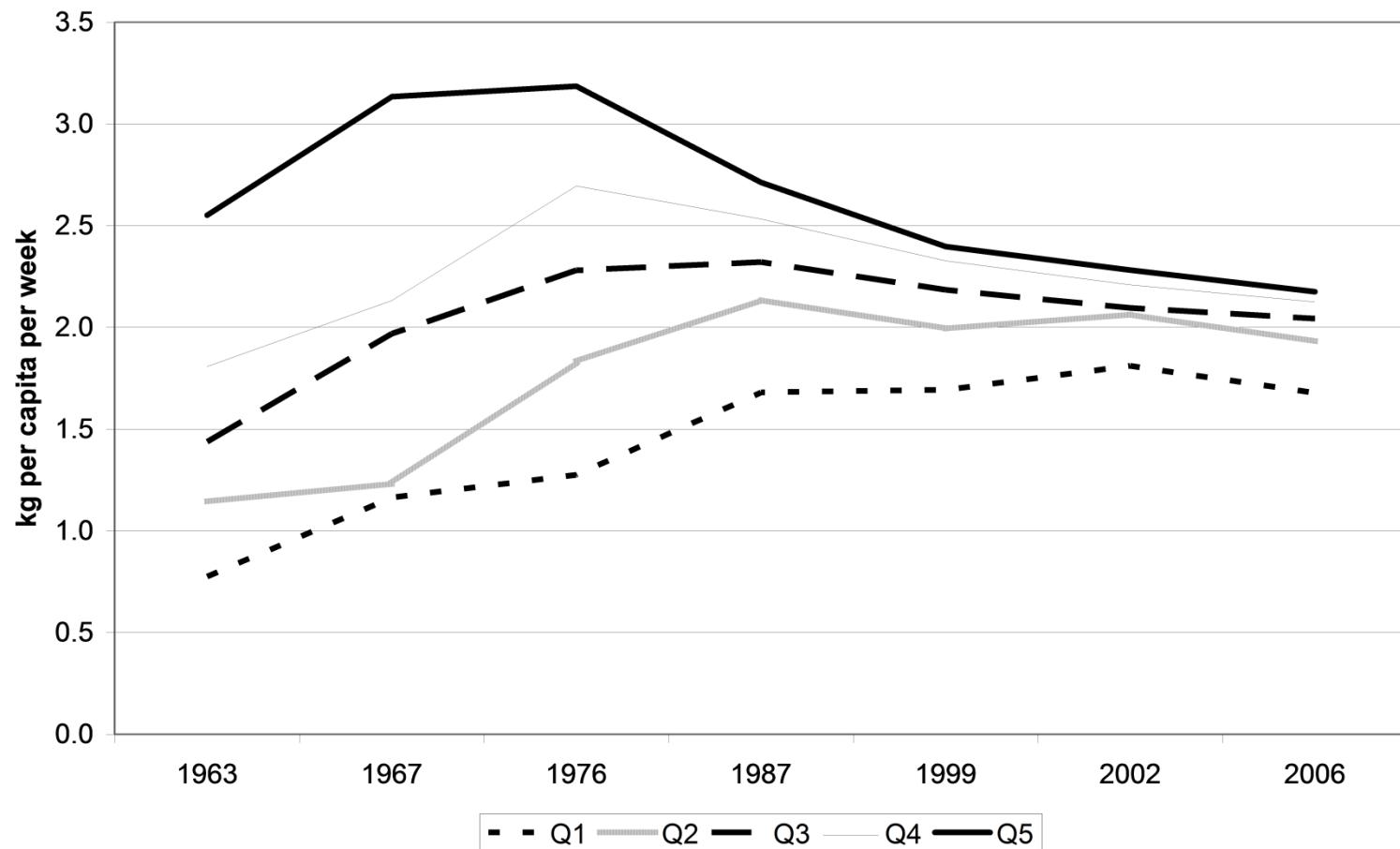
Per capita wheat consumption, ASEAN countries (Dawe)



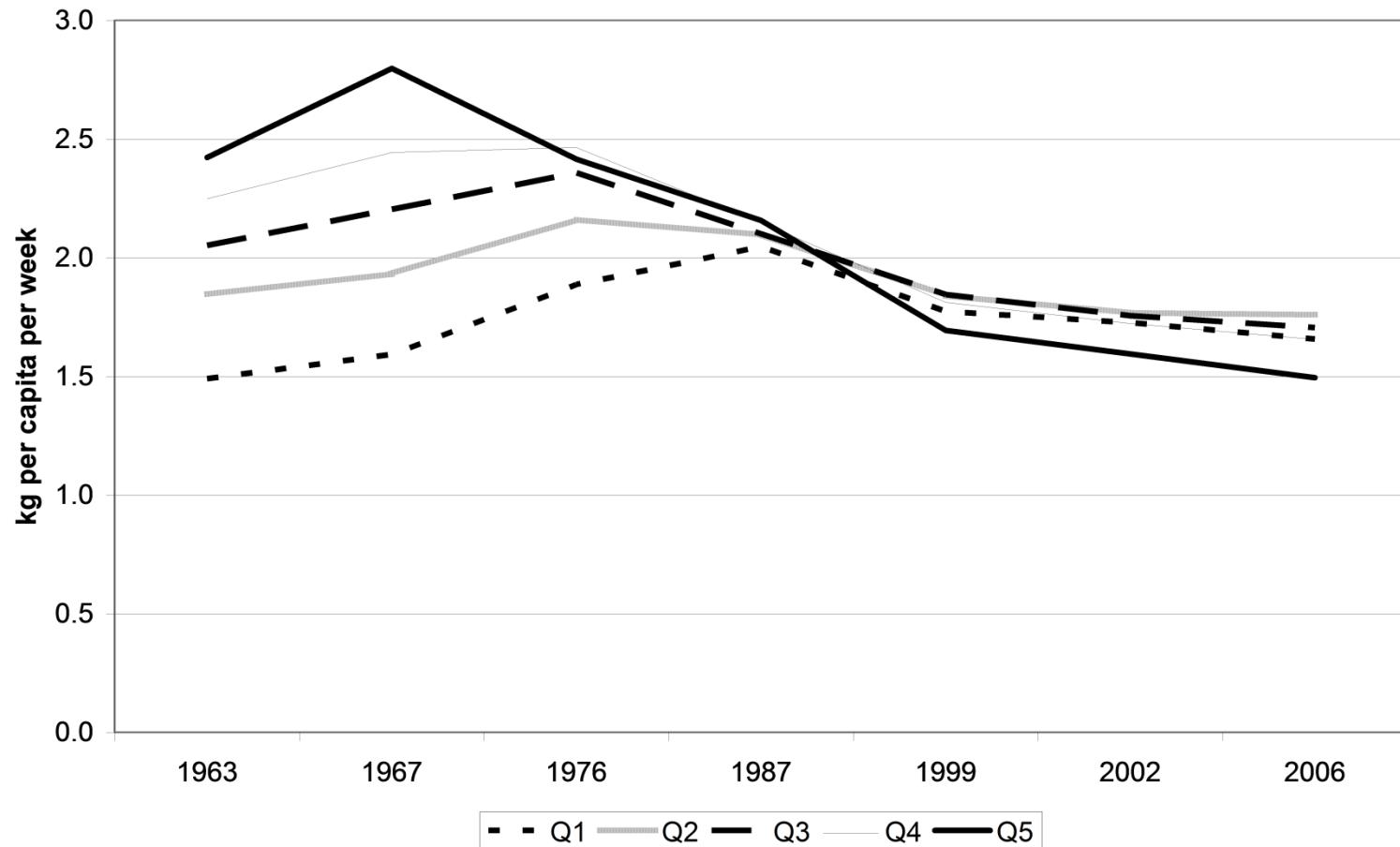
Rice consumption declines with per capita income increases



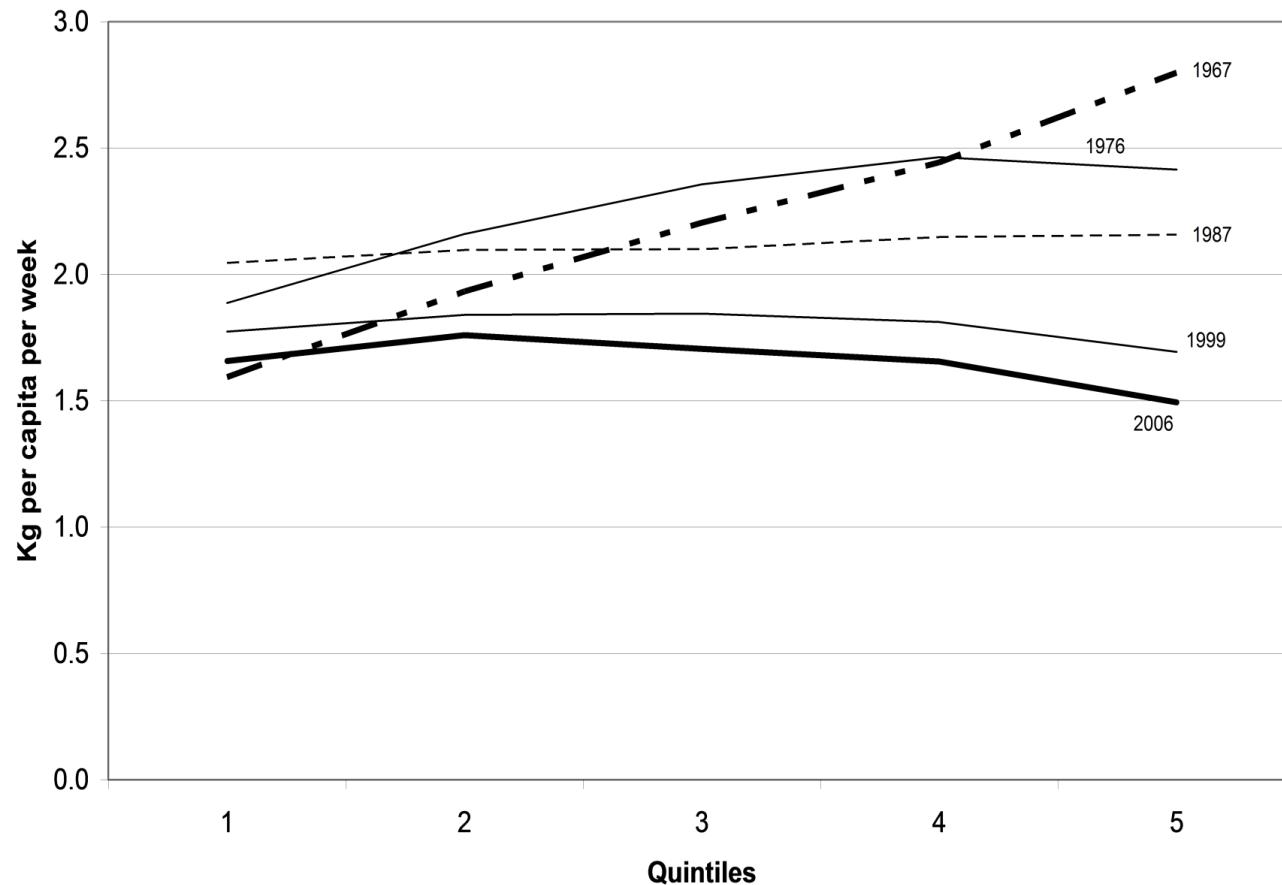
Per capita rice consumption by quintile over time, Indonesia, rural areas



Per capita rice consumption by quintile over time, Indonesia, urban areas



Engel curves over time for urban Indonesia



Ratio of rice consumption in the top quintile to rice consumption in the bottom quintile over time, India and Indonesia, rural and urban areas.

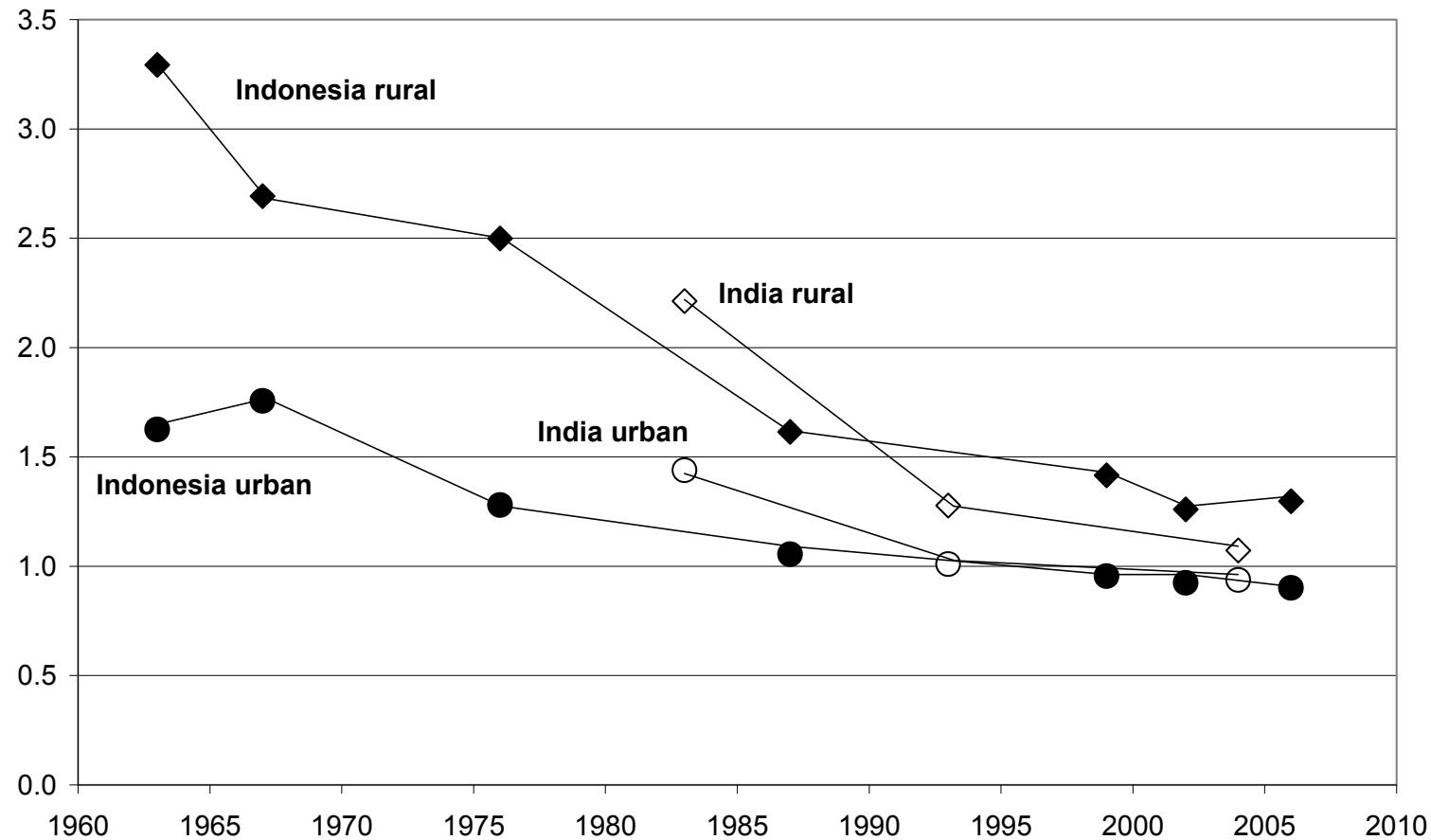


Figure 2. Annualized percentage change in rice consumption by quintile and location, Indonesia, India, and Bangladesh.

R refers to rural quintiles, U to urban quintiles. Period over which changes are calculated are 1967-2006 for Indonesia, 1983-2005 for India and 1983-2005 for Bangladesh.

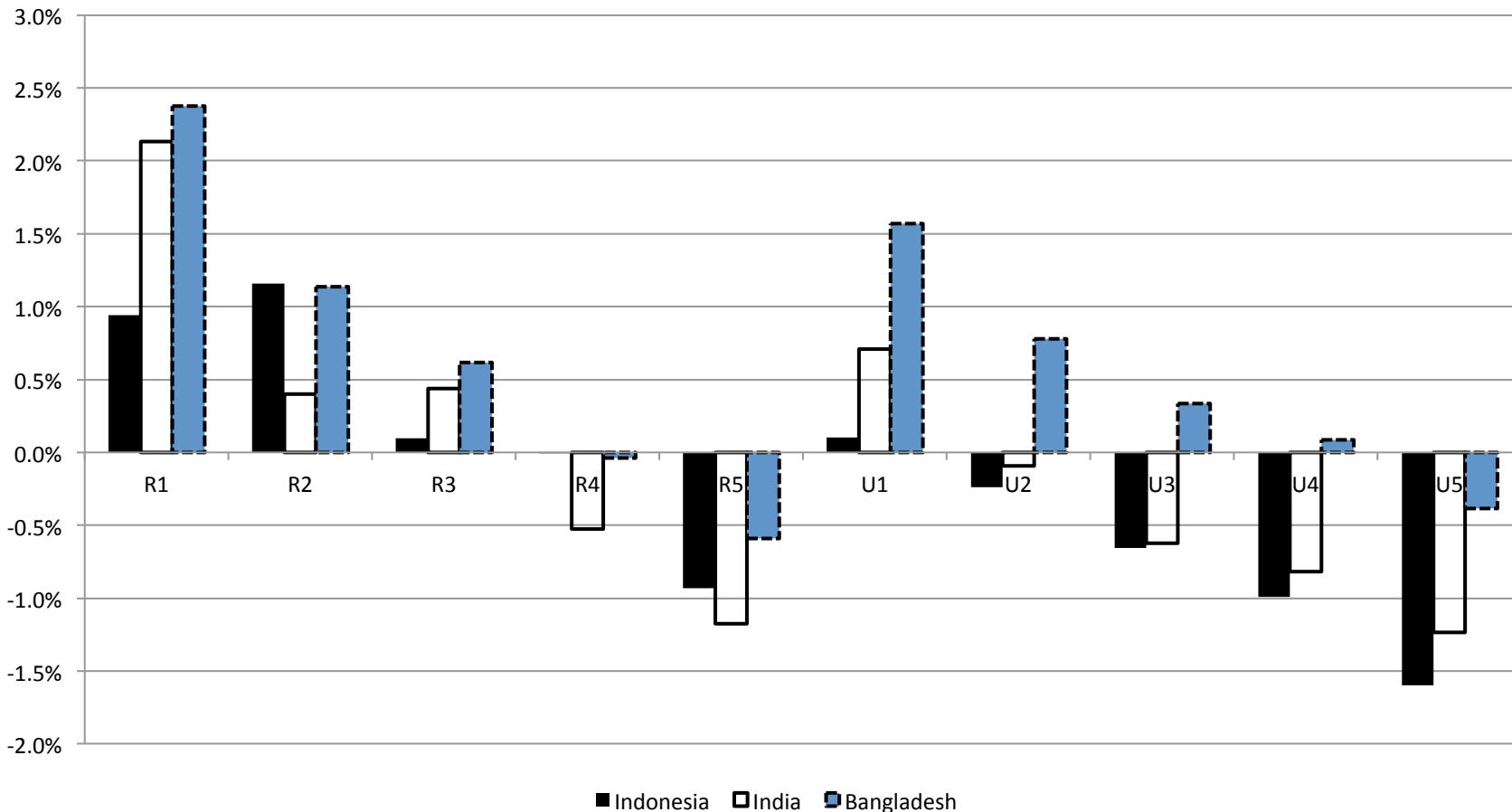
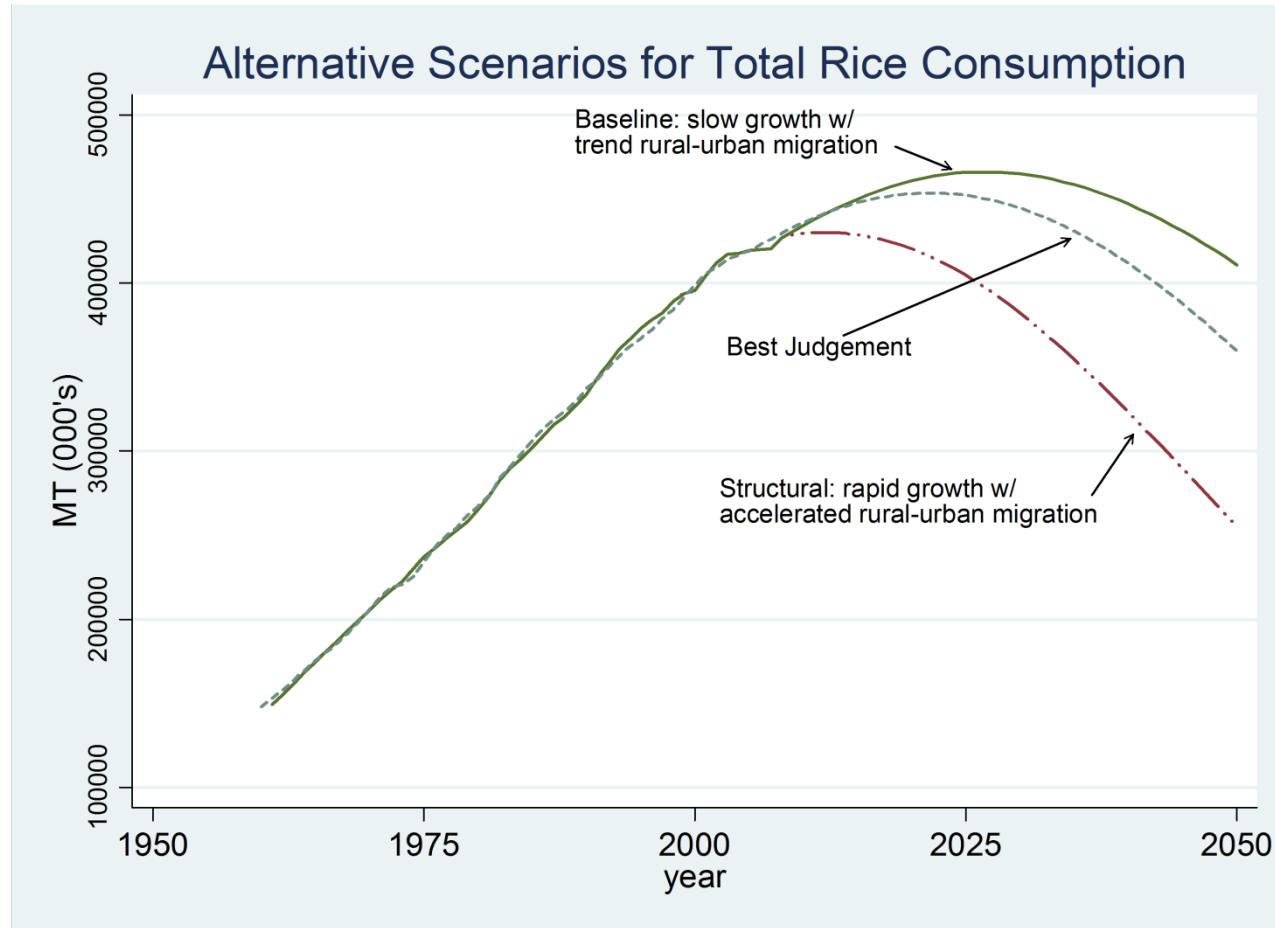


Figure 3. Alternative projections of world rice consumption at different rates of economic growth and rural to urban migration, with real rice price constant at its 2007 level



Implications for the role of rice in Asia's food security:

Rice is increasingly the food of the poor. This has significant implications for poverty if countries use “high” rice prices as a mechanism to guarantee “macro” food security and a high level of self-sufficiency in rice

Implications (2)

The share of rice in caloric (energy) intake is falling rapidly.

- a. Asia now has a strongly negative income elasticity of demand for rice.
- b. Rapid rural to urban migration lowers per capita rice consumption quite sharply.
- c. Better connected food systems mean that rural households can be less self-sufficient in food production and consumption, especially rice.
- d. On average, Asia obtained about 40 percent of calories from rice in the early 1970s, at the peak impact of the Green Revolution, and that share is now below 30 percent and falling.
- e. The budget share spent on rice is falling even faster. Now only 10 percent of the food budget goes to rice (on average—it is higher for the poor), so 90 percent of the food budget is spent on other commodities and value added from processing and convenience.

Implications for the role of rice in other regions

- Price effects, as Asian demand drops
- Quality differentials, as spreads will widen between high and low quality rice
- Marketing channels will change as the supply chain revolution spreads
- Prospects for growth in rice consumption in Africa and the Americas

So?

- Rapidly falling demand for rice not far off...
- Continued push to expand rice production...
- Fear of the rice market in major importing countries, with accelerated self-sufficiency campaigns
- A thin and unstable rice market, with lower prices for “commodity” rice