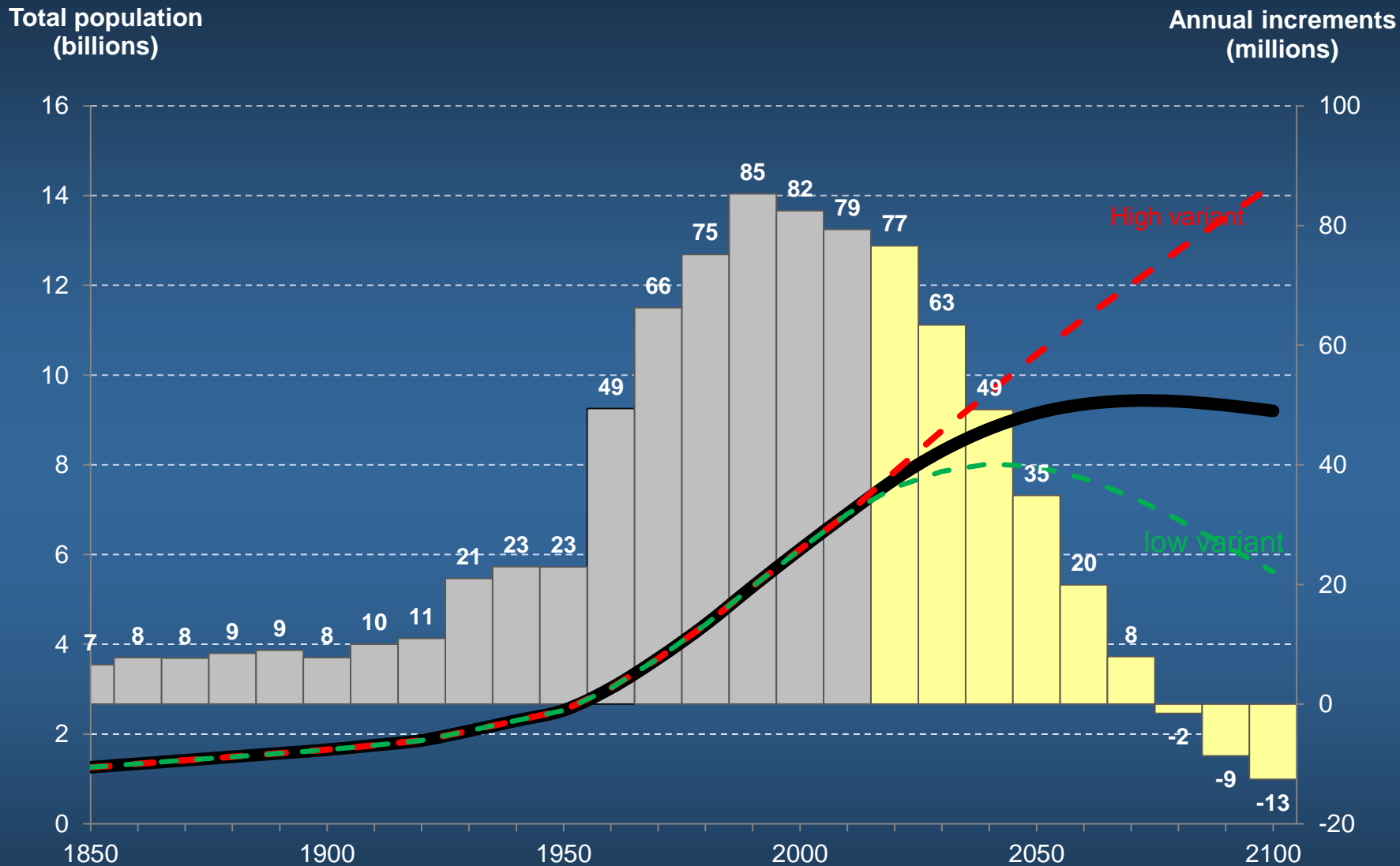


The FAO outlook to 2030/50: What are the implications for global grain markets?

Josef Schmidhuber
Deputy Director, Statistics Division
FAO

1. Overview of main results and drivers

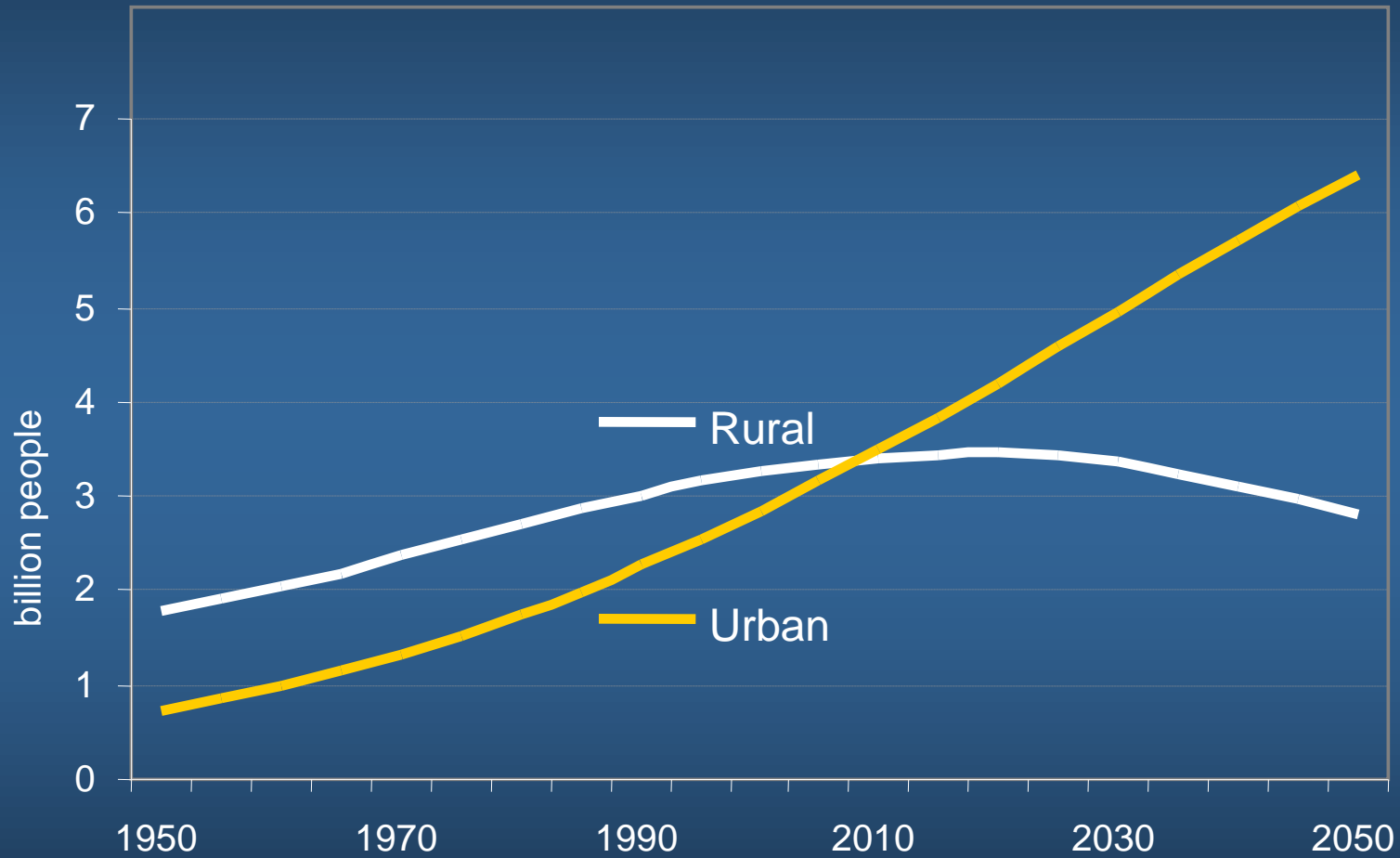
Population growth to continue, but at a slower pace



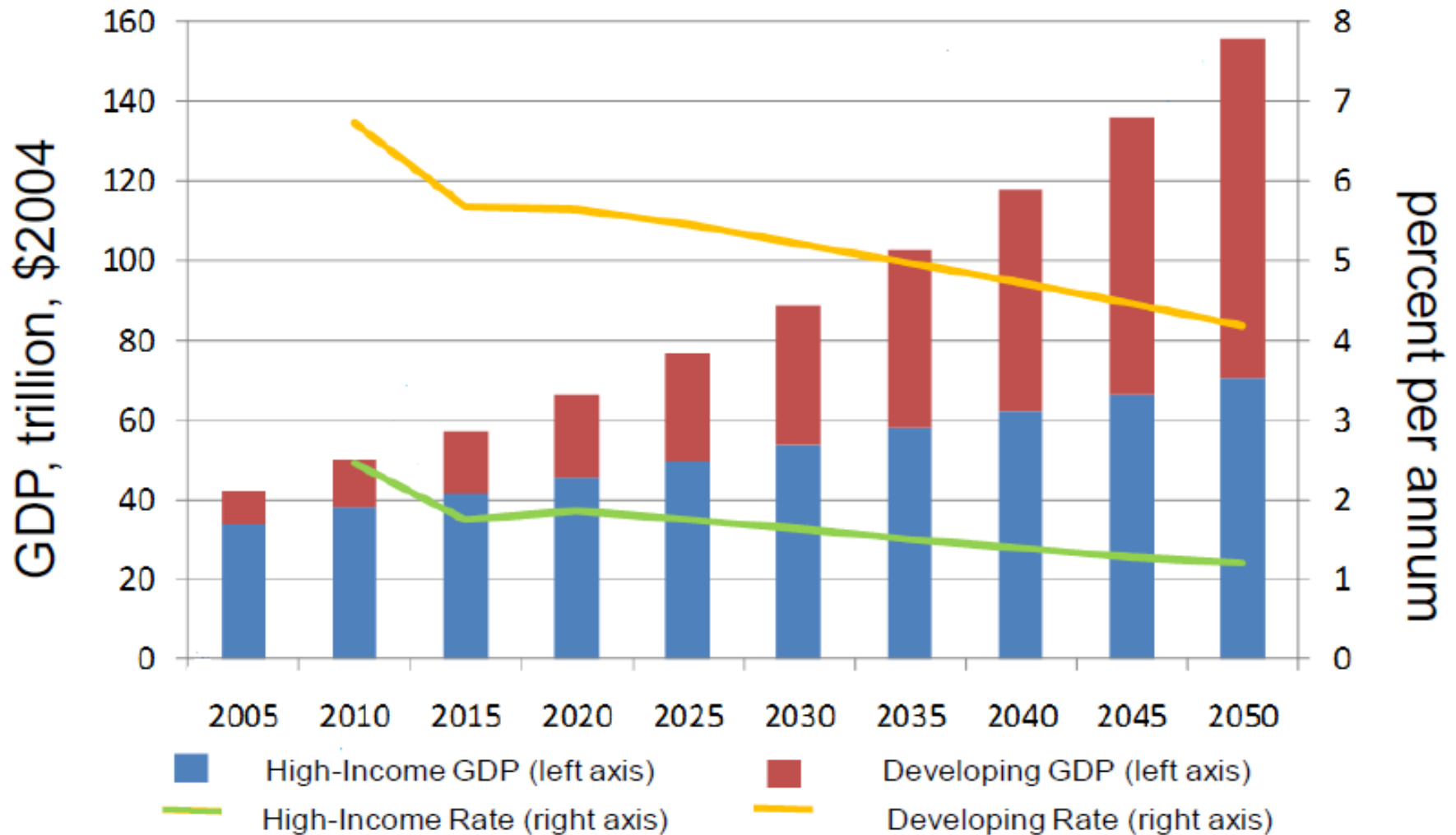
Source: UNPD, 2008

Brussels, 16 May 2013

Urbanization to accelerate

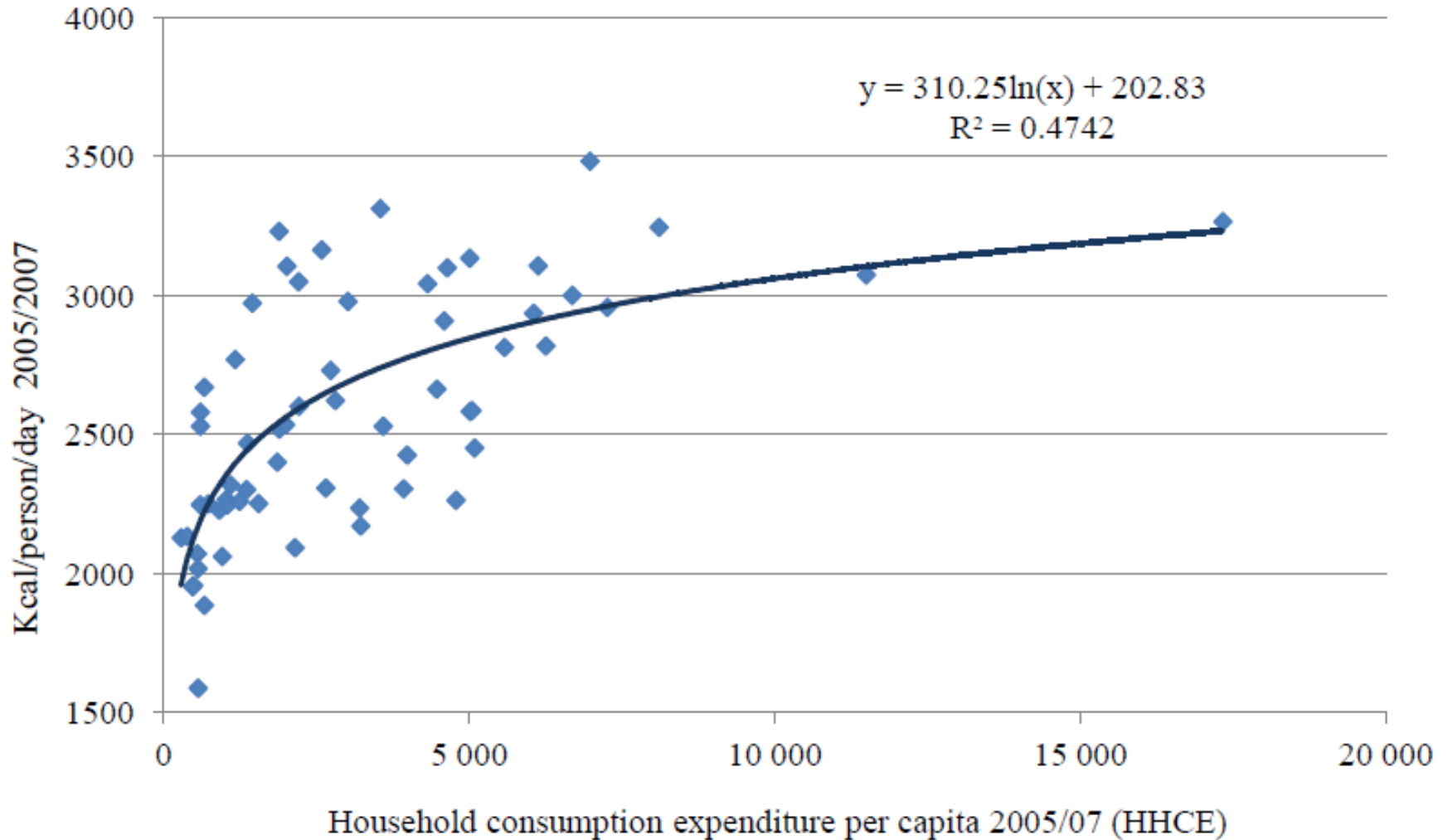


GDP Growth to continue

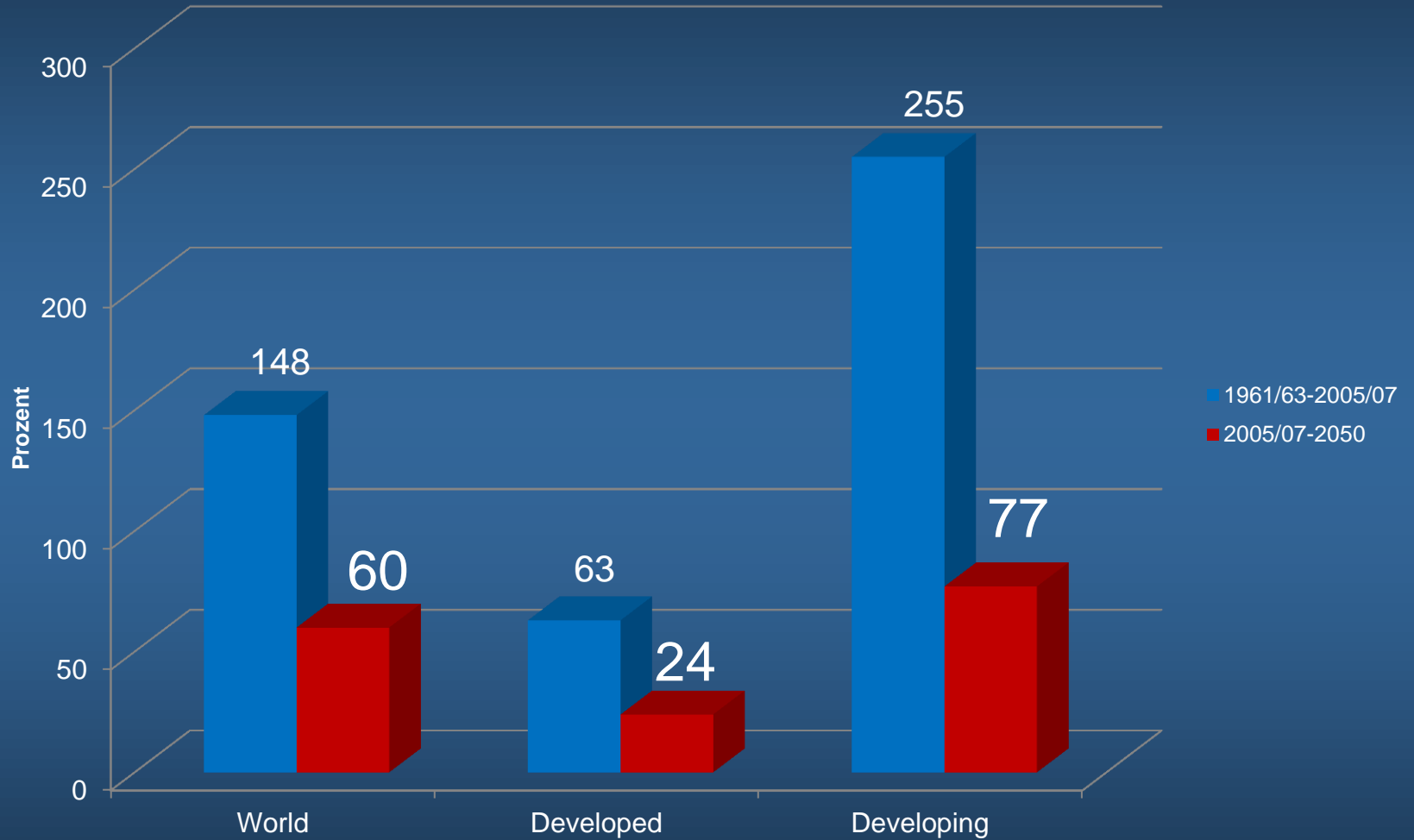


Source: World Bank

Consumption (kcal/pc) and per capita incomes (62 Developing countries)



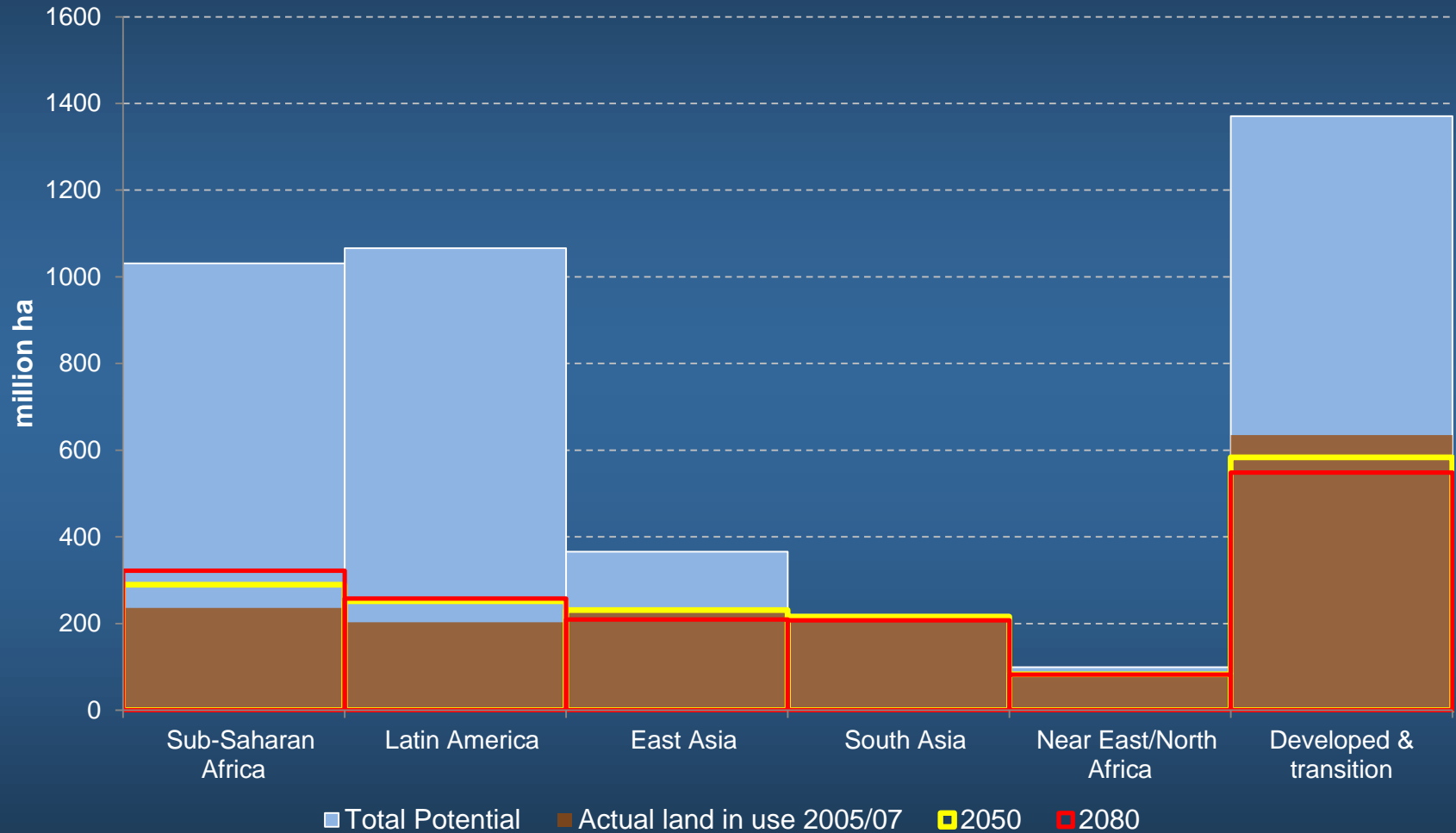
Expected overall production growth to 2050



2. Some selected impacts on the resource base

Arable land expansion

Land potential for rainfed production, actual use in 2005/07, 2050 and 2080

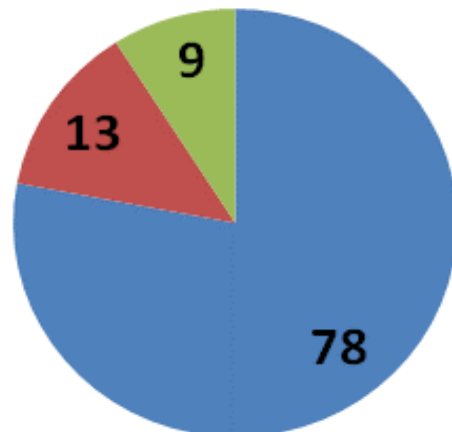


Sources of growth in crop production, from 2005/07 to 2050

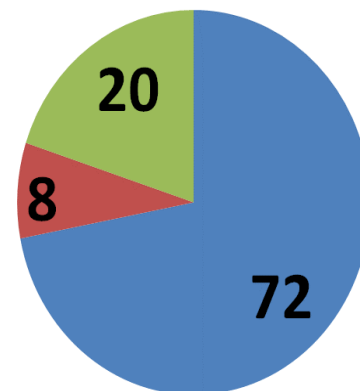
increases in

- Yields
- Cropping intensity
- Arable land

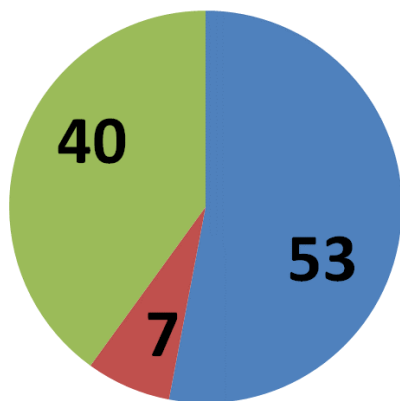
World



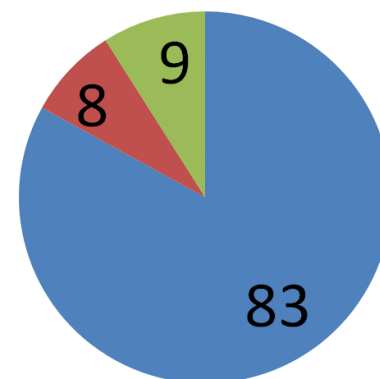
Developing countries



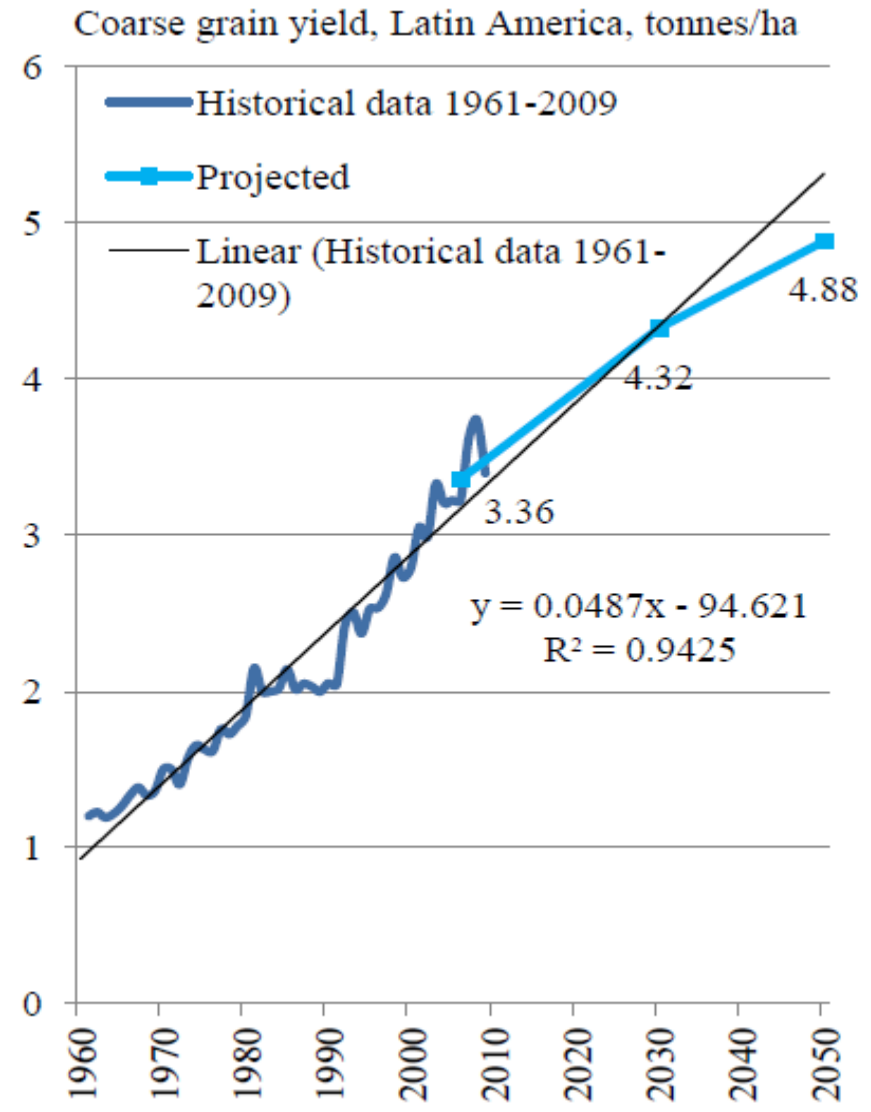
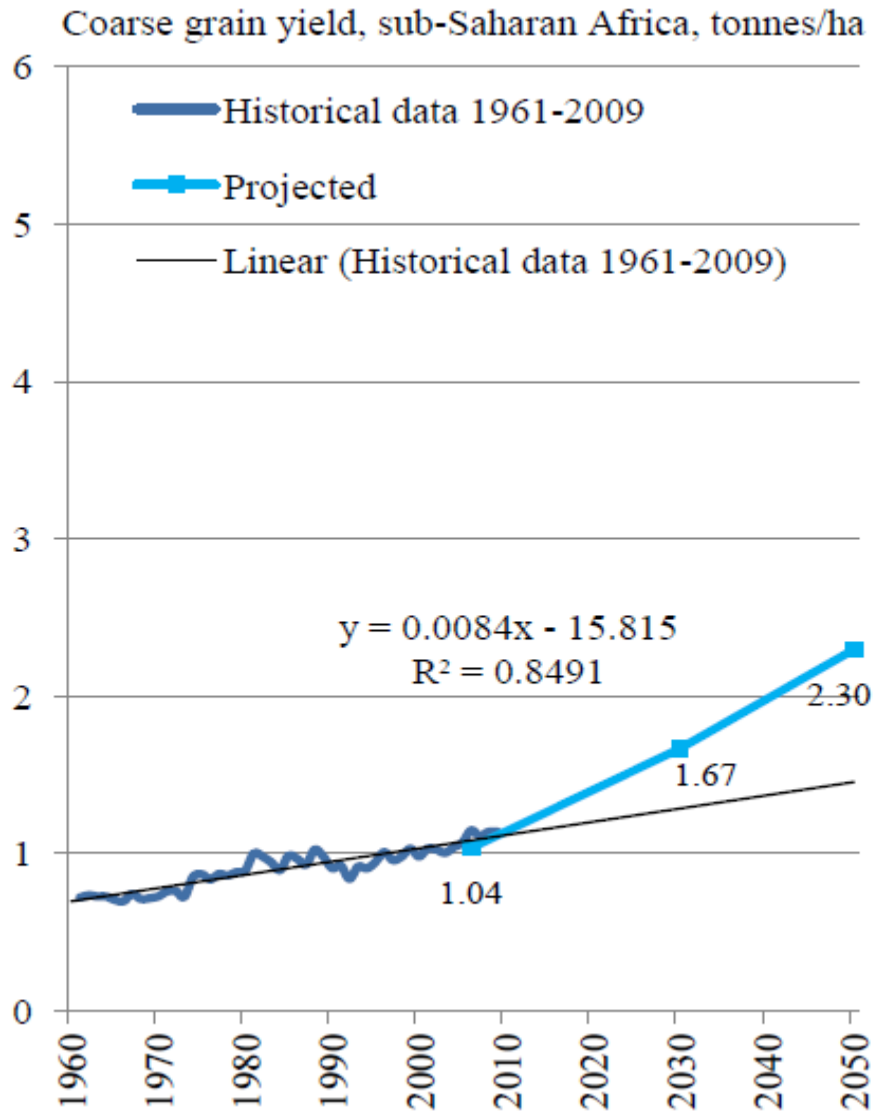
Latin America



South Asia

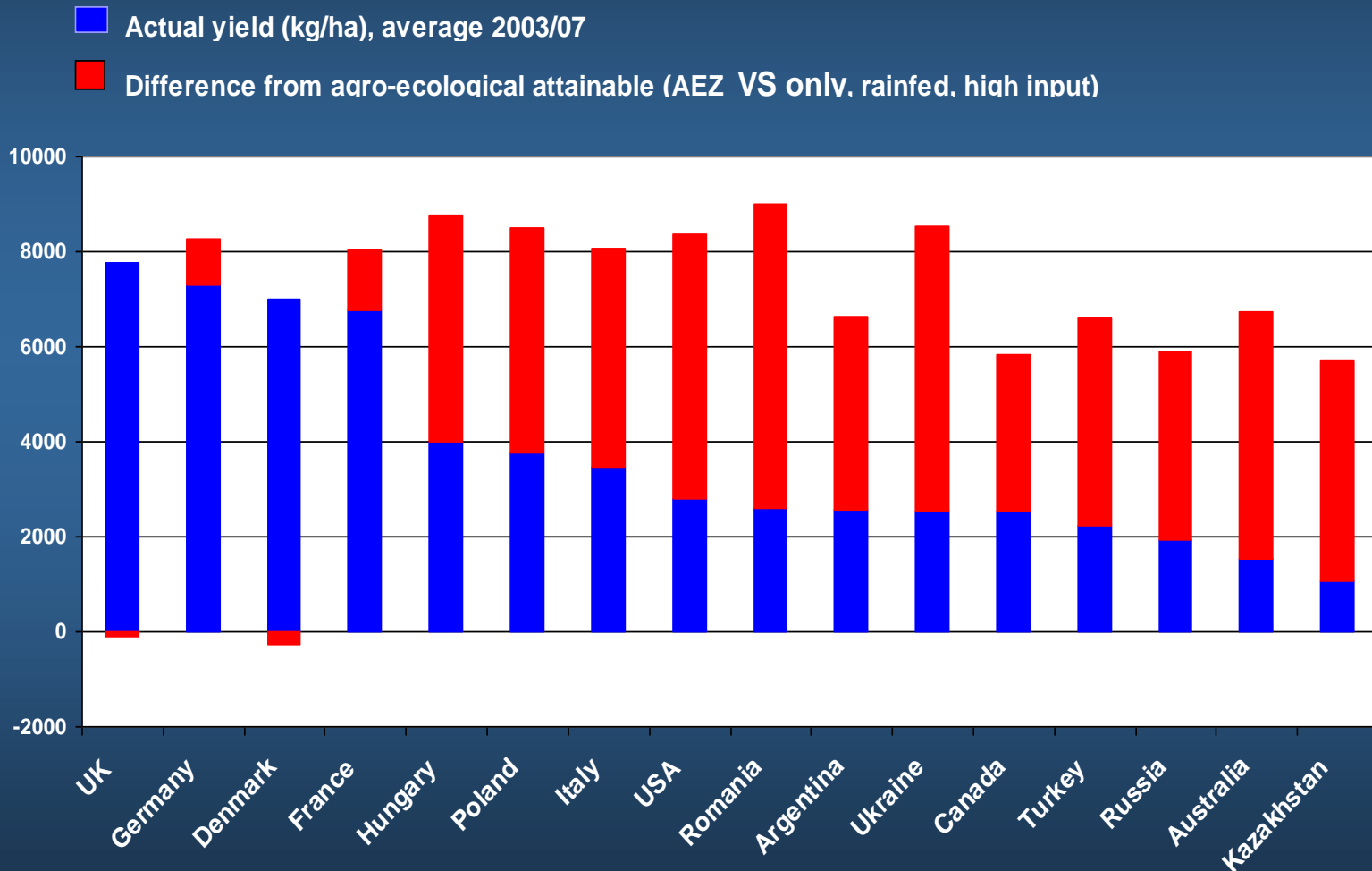


Cereal yields in sub-Saharan Africa and Latin America Past and projected



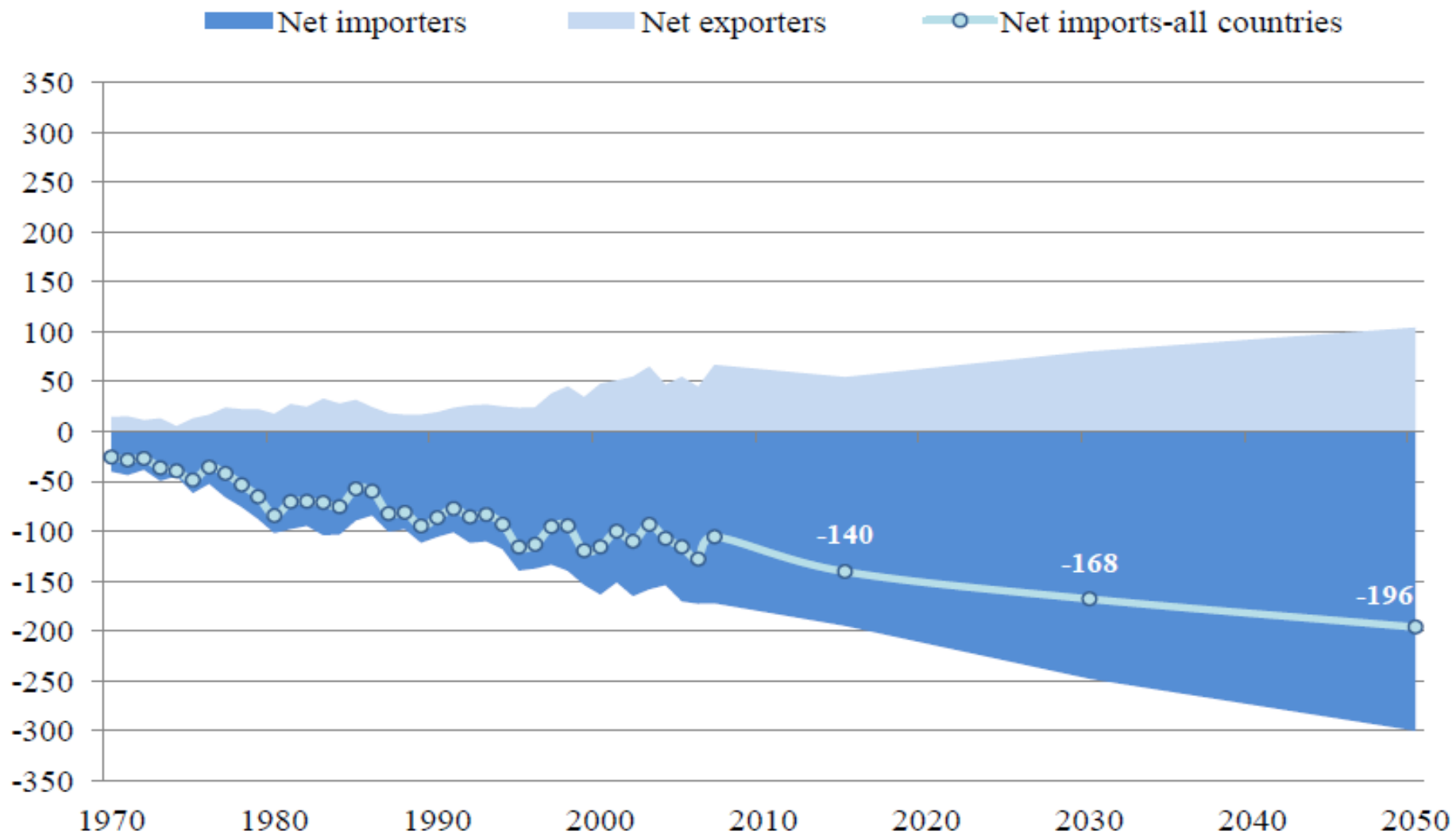
Yields and bridgeable yield gaps

Wheat yields: 16 countries with more than 4 mmt of production



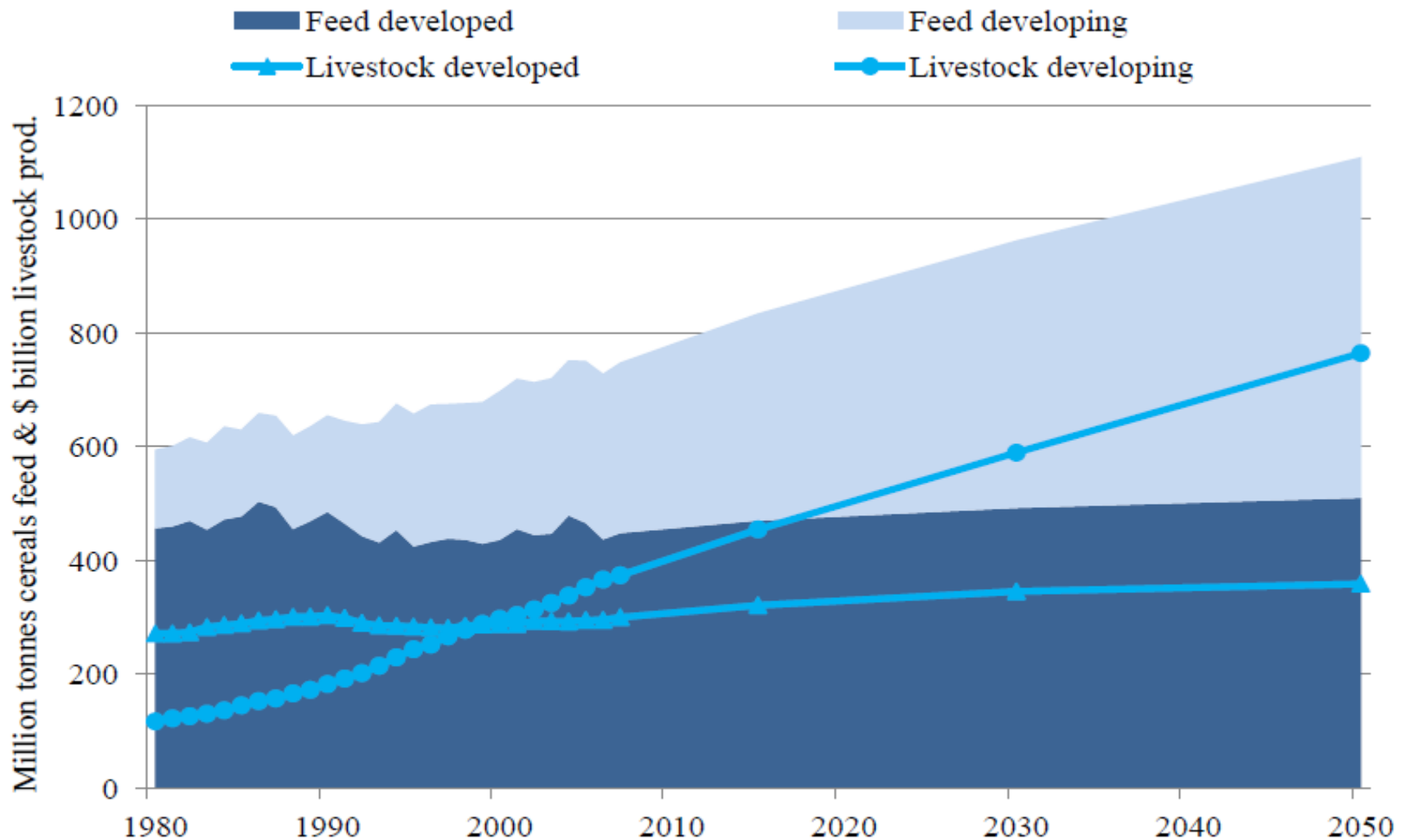
3. Some selected impacts on cereal markets

Net import requirements of developing countries to rise



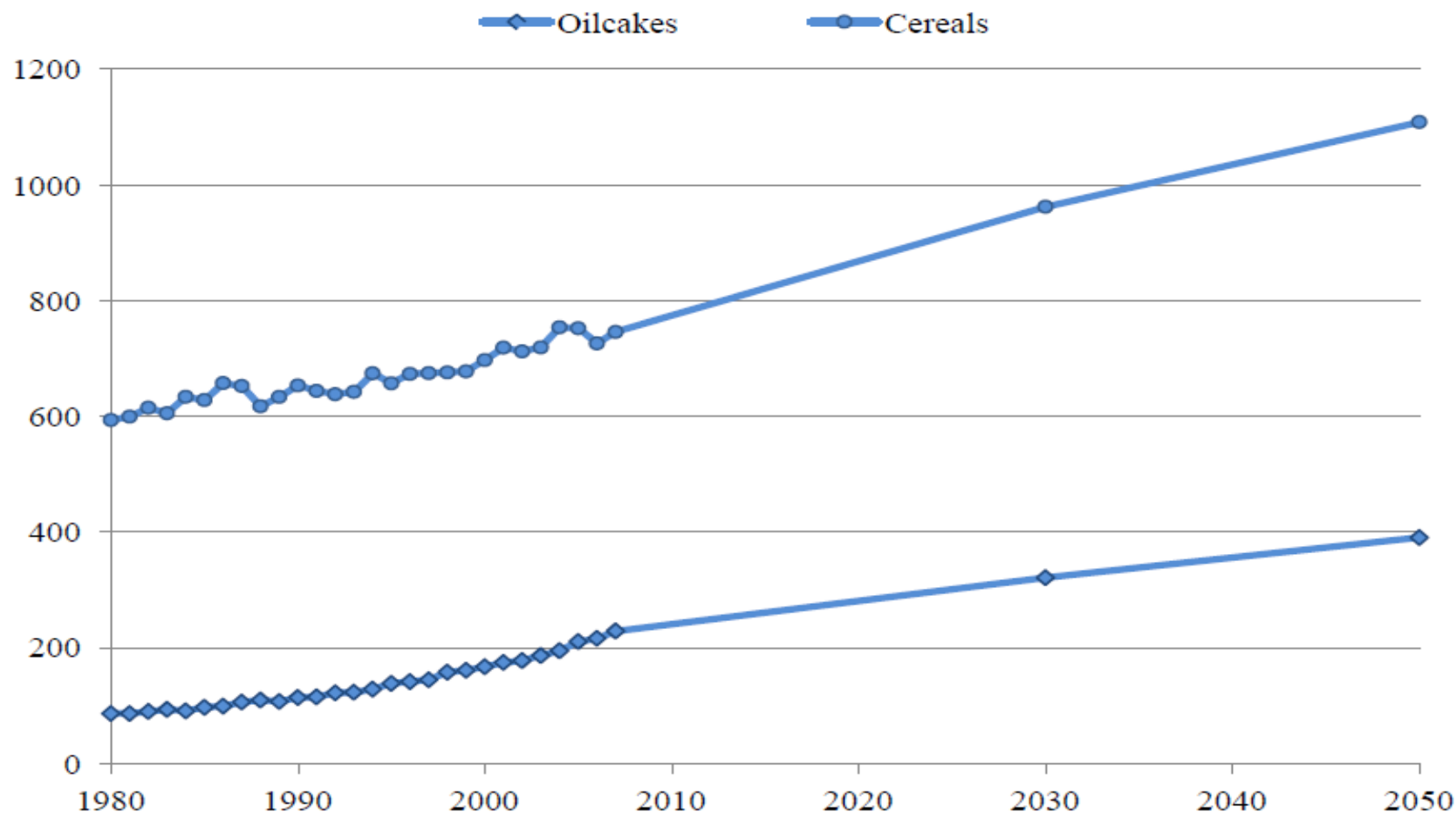
A country is defined as net importer or exporter according to its net balance in each year.

Cereal feeds (mmt) and livestock production (\$billion)



* Volume of production obtained as quantities times constant price of 2004/06 of individual livestock products, same price in all countries.

World feed use of cereals and oilcakes



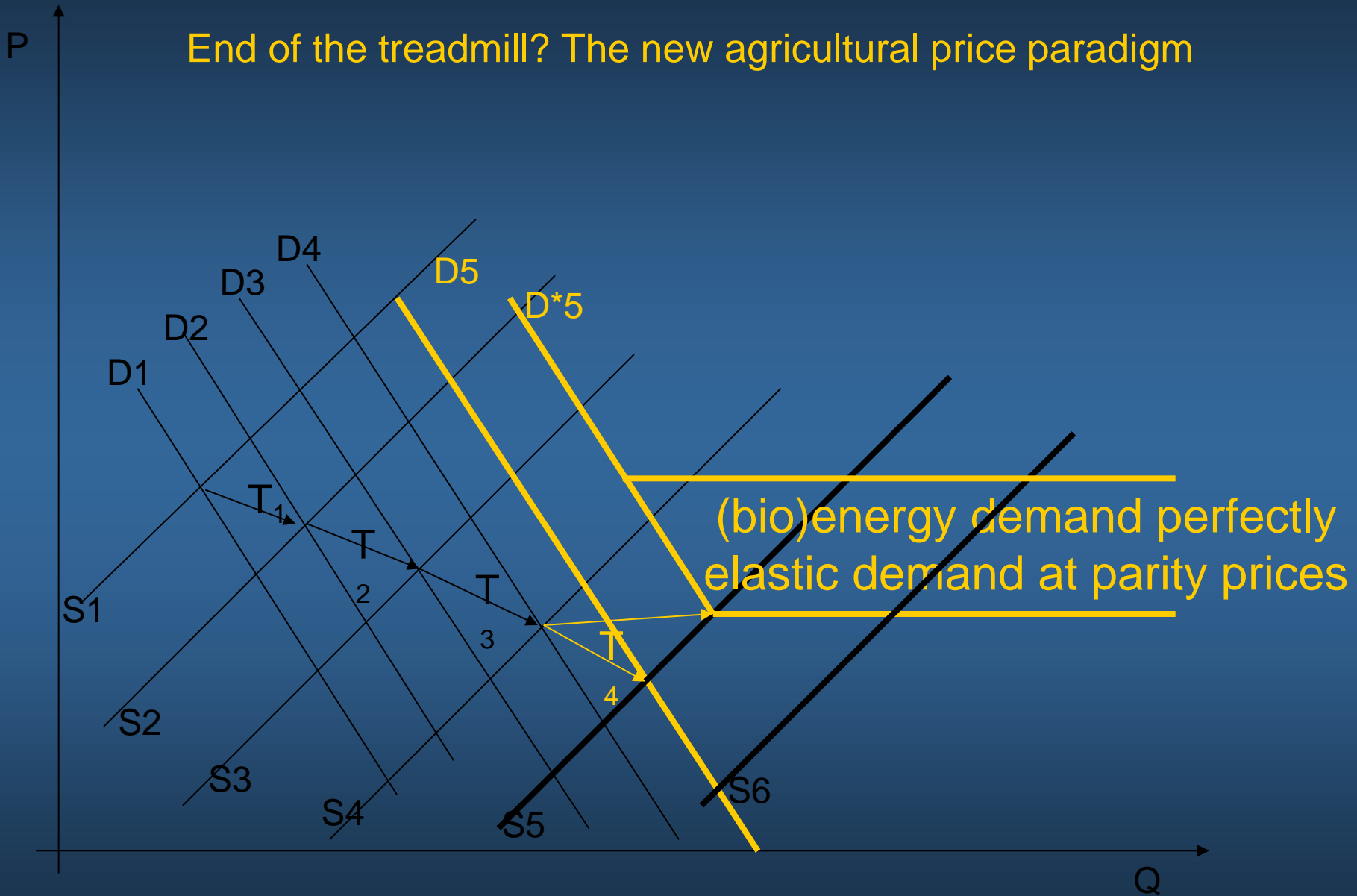
Historical data 1980-2007 from FAOSTAT; Projections: World feed use of Cereals: sum of the country feed projections; World projections of oilcakes feed use: world oilcakes production derived as joint products from the summation of the country production projection of oilcrops.

4. How does bioenergy change the outlook?

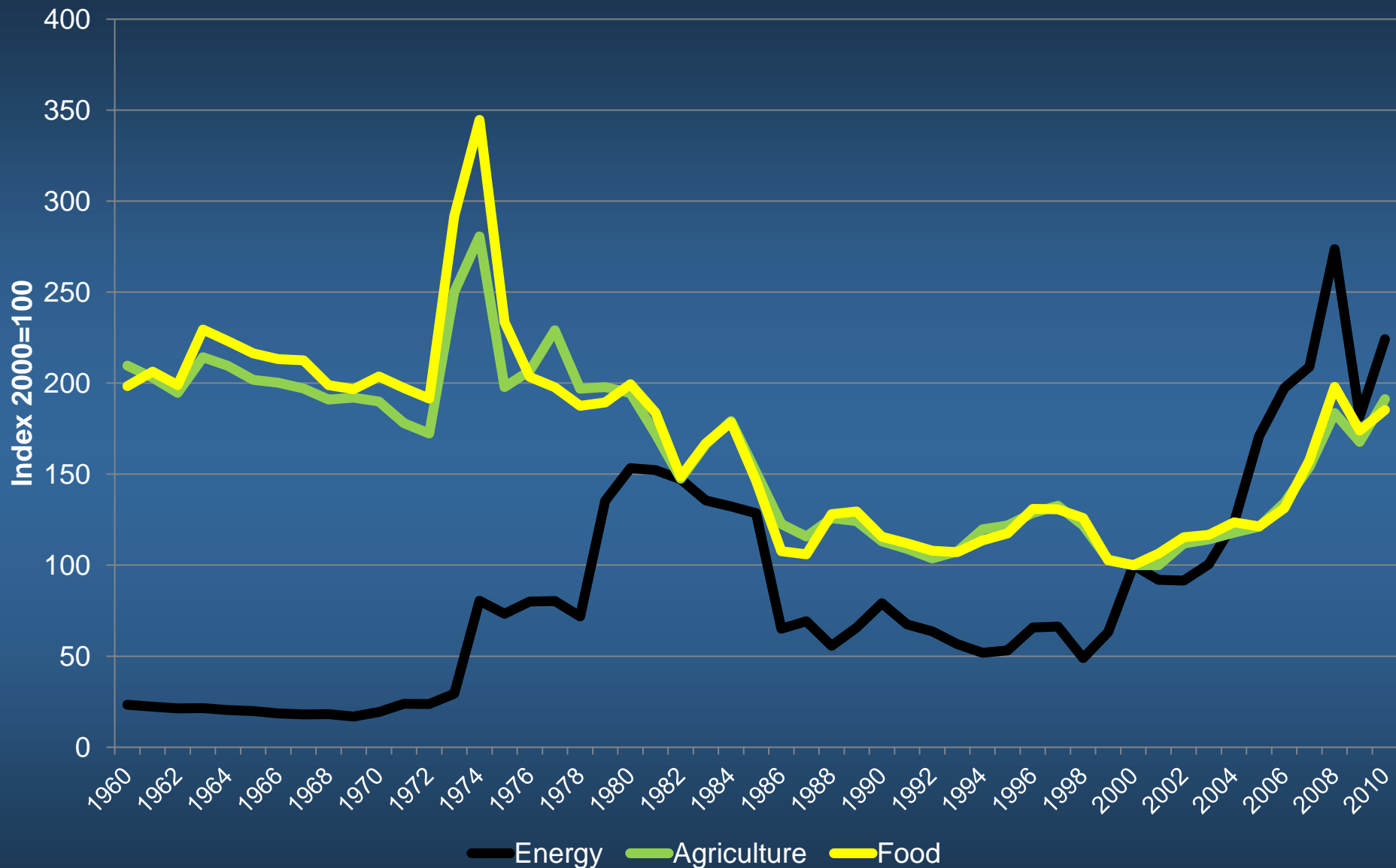
How big is the energy market?

1. Energy market (TPES): nearly 500 EJ
2. Biomass: 50 EJ (80% in developing countries)
3. Biofuels: 2.9 EJ, on ca. 32 million ha
4. Transport energy needs: ca. 95 EJ
5. Crop area to cover transport energy needs: >1000 million ha, i.e. 2/3 of global crop area.
6. Energy market is large, creates perfectly elastic demand for agricultural produce at break-even points (parity prices).

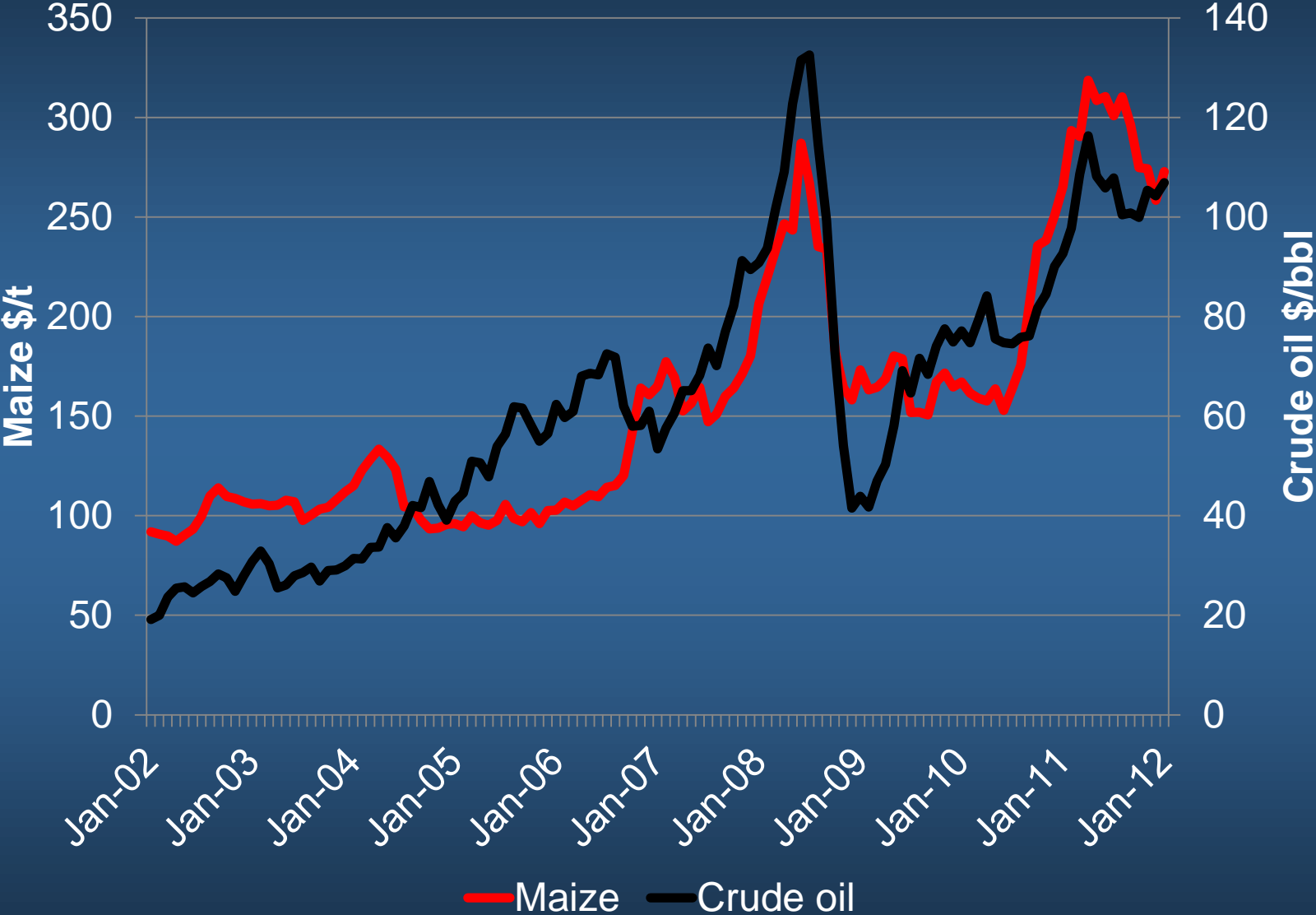
End of the treadmill? The new agricultural price paradigm



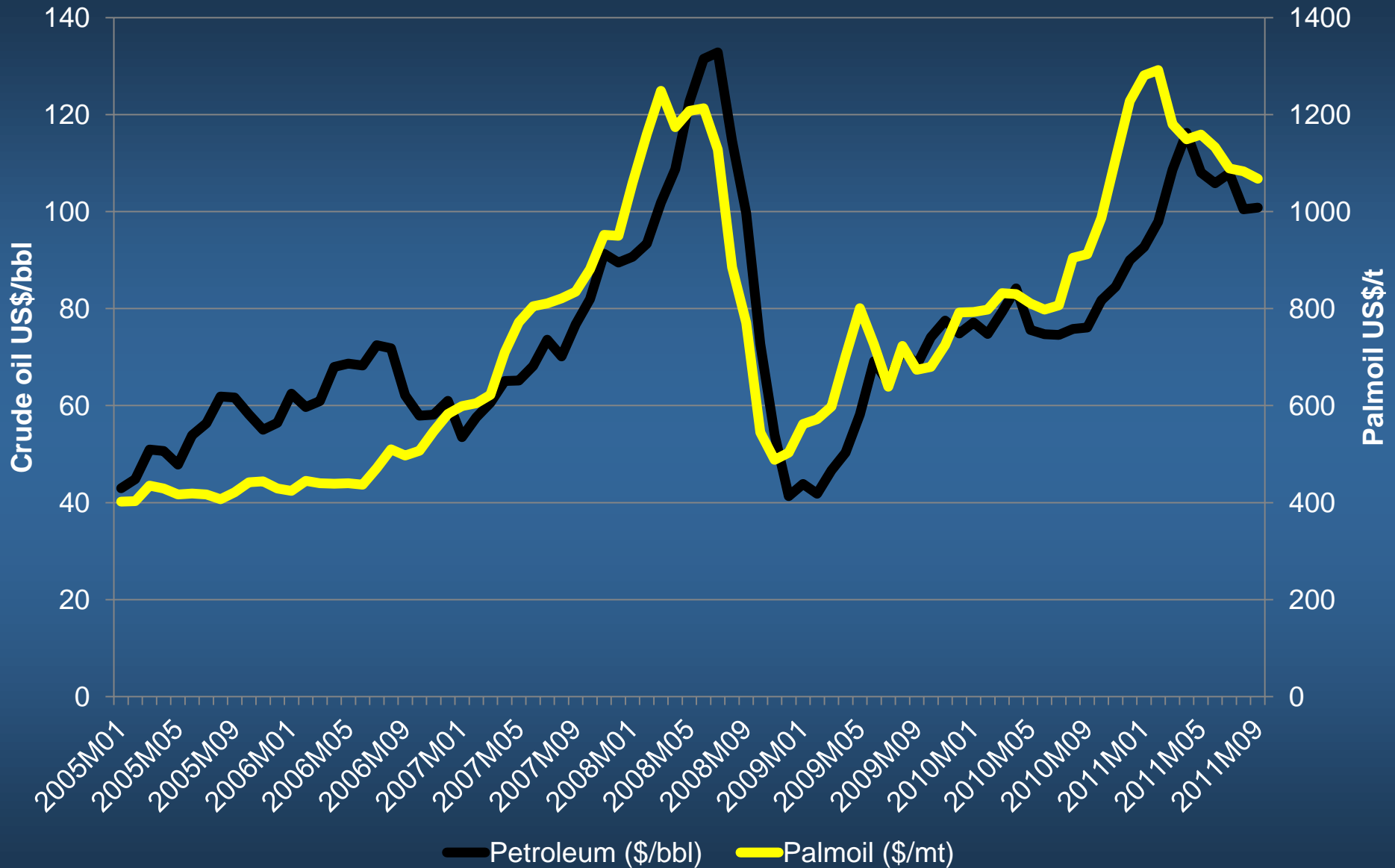
Energy v Agriculture: Catch-up potential for Agriculture?



Crude oil drives maize prices



Petroleum prices drive vegetable oil prices



Summary of the most important points

1. Food demand

- Growth continue, but slower due to slower population growth, saturation or food consumption

2. Cereal markets

- Developing countries to increase their import needs
- Eastern Europe and Russia to remain net exporters
- Demand growth for feed use much larger than for food use (livestock revolution is in the feed use)

3. New (energy/industrial) demand

- High energy prices make agriculture competitive in non-food markets, provide floor price in the long-run
- No cheap food/grain in the presence of expensive energy

Thanks!
Questions?

