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Comments on Kym Anderson's "Australian Agricultural Sector Competitiveness"

Will Martin

Contributed presentation at the 60th AARES Annual Conference,
Canberra, ACT, 2-5 February 2016

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Comments on Kym Anderson's "Australian Agricultural Sector Competitiveness"

Will Martin

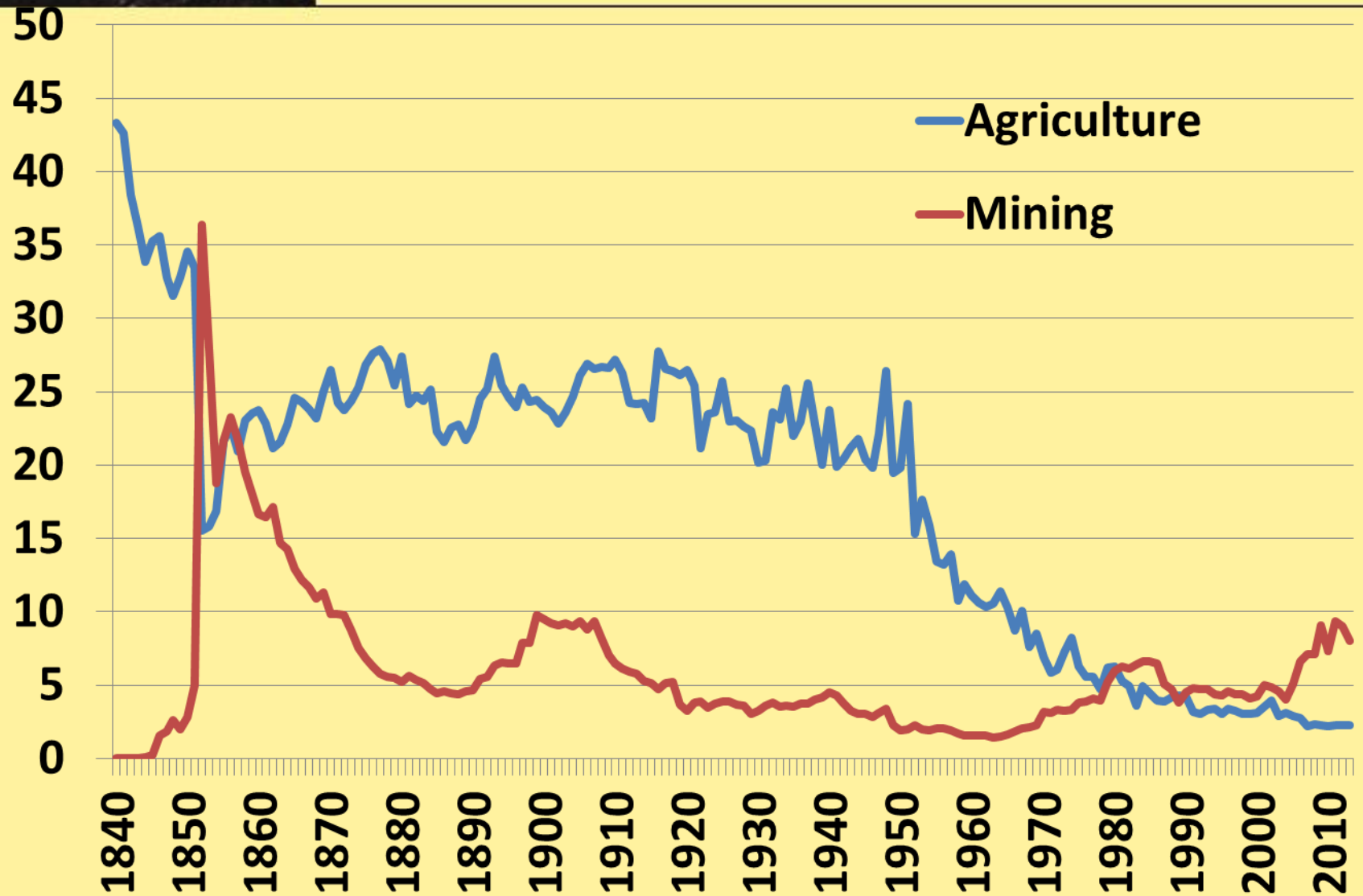
60th Anniversary AARES Conference 2016



Great presentation

- Highlights the tussle between Australia's resource-based sectors since the 1840s
- Highlights the resilience of Australian agriculture through the 20th century
- Future prospects depend heavily on Asia

Sectoral shares of GDP (%)

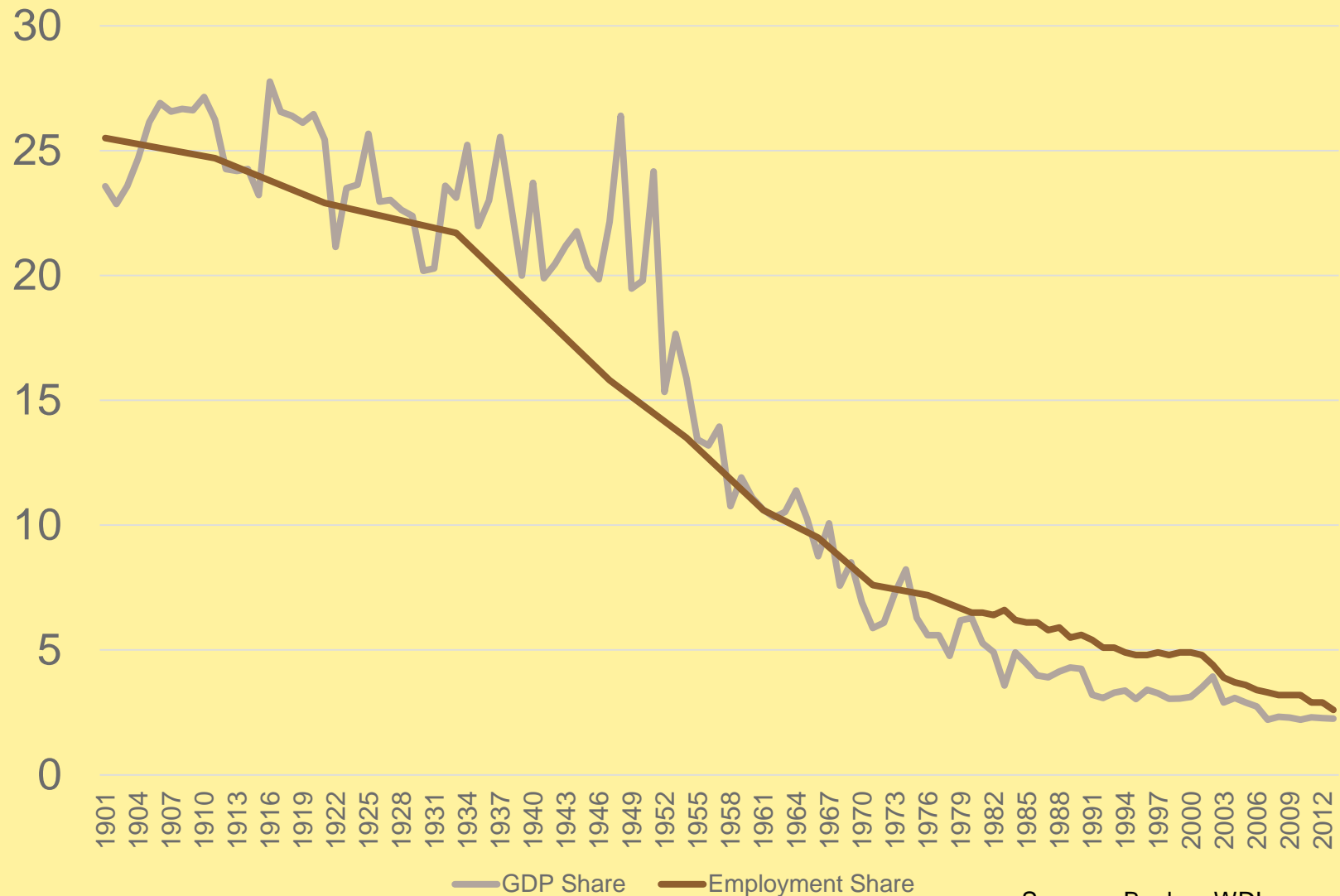




20th Century Resilience & Adjustment



Agriculture in the Australian Economy (%)



Sources: Boehm; WDI

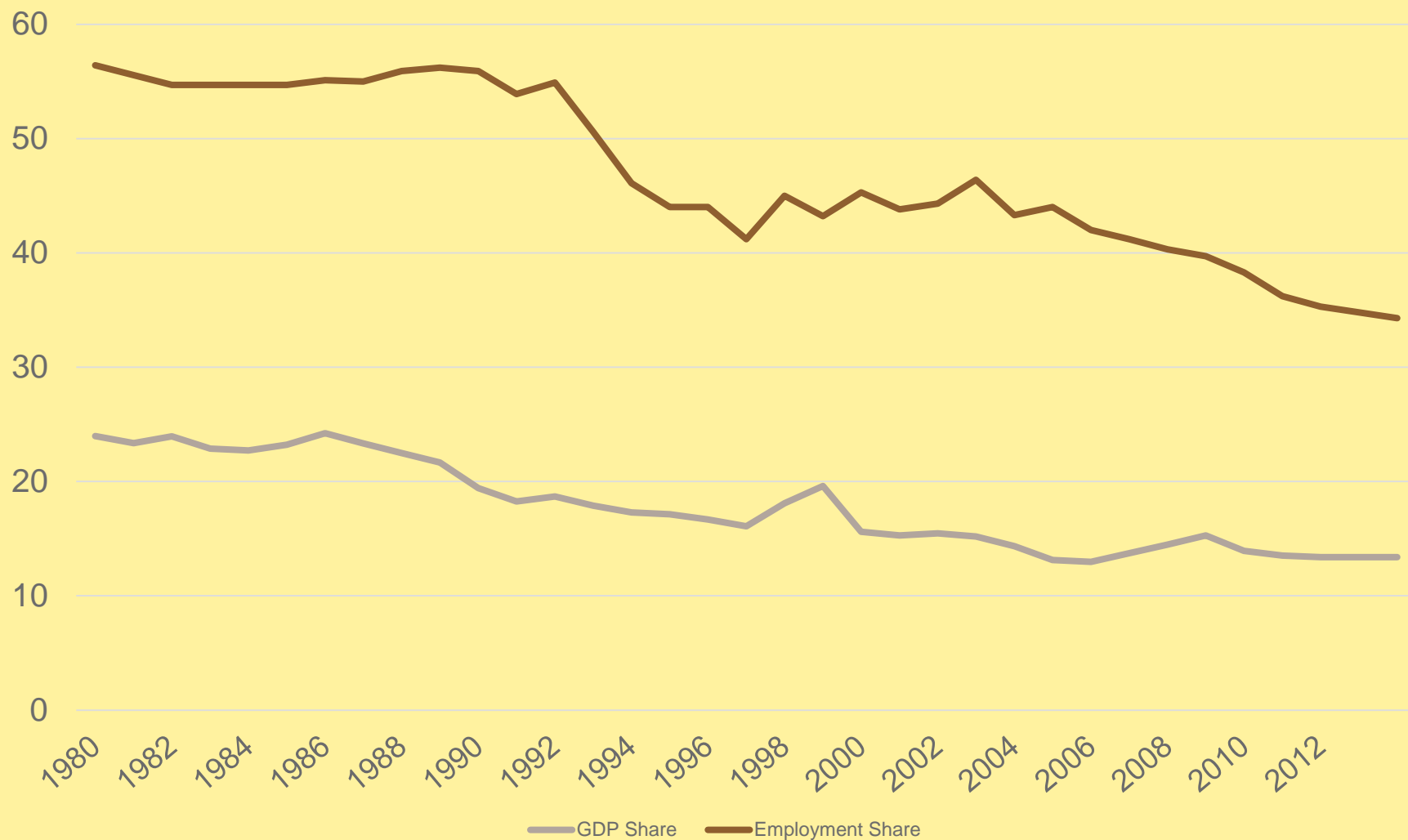


Quite different from most countries

- Typical for agricultural employment to fall much more slowly than agricultural GDP
 - Creating large gaps between agricultural incomes and incomes in other sectors
 - Often identified as “the farm problem” and used to justify support to agriculture



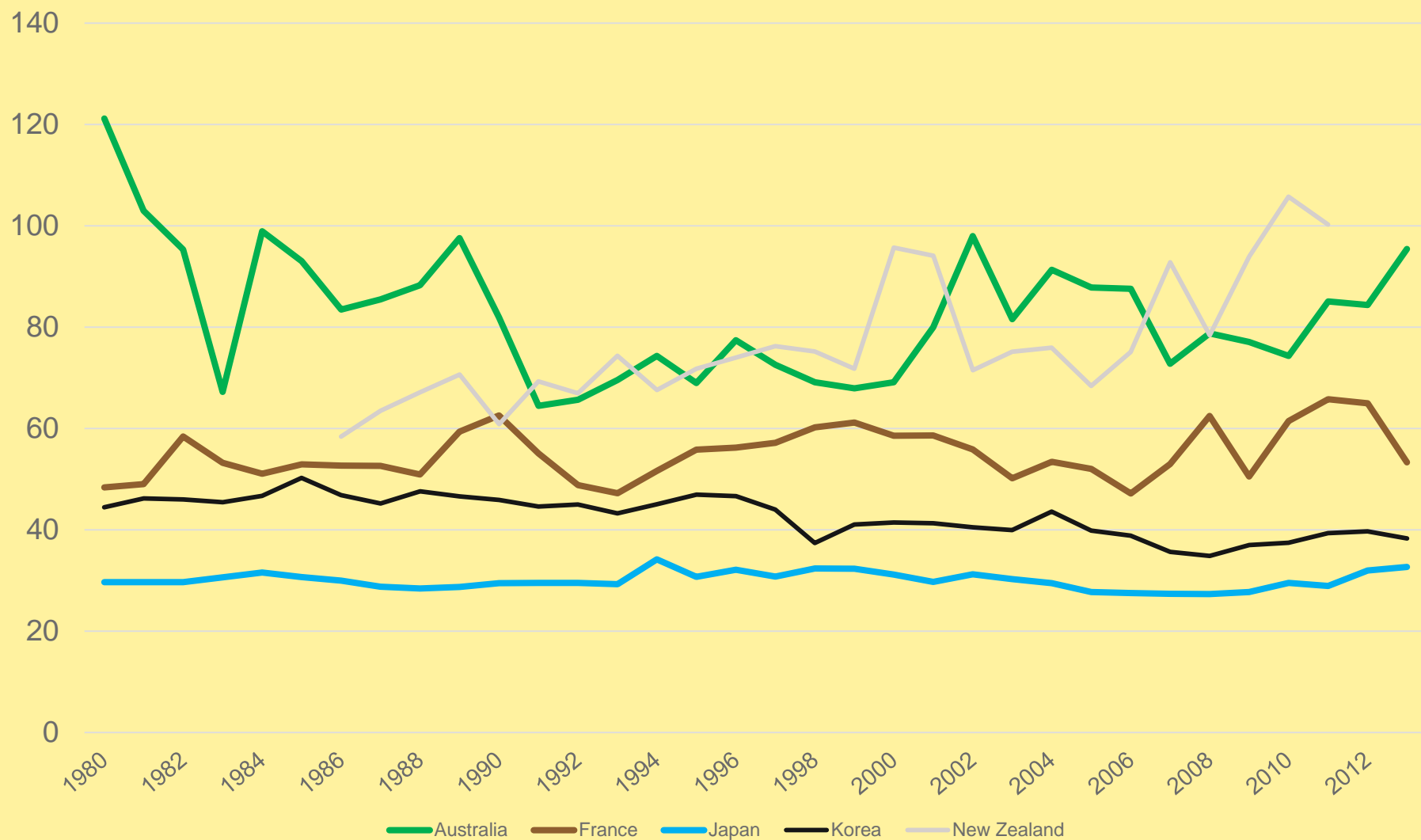
Indonesia: Agriculture Share %



Source: WDI



Agric to National Income/worker



Source: WDI



Income Gaps

- Australia and NZ have relatively small income gaps between agriculture and the economy as a whole
 - Reflect relatively rapid adjustment of resources out of agriculture
- Other countries have much larger gaps
 - Even where agriculture is heavily supported
- What did Australia and New Zealand do right?



Growing Food Demand from China?



Food demand in China

- Demand growing rapidly, primarily through changes in products consumed
 - Consumption of staples falling rapidly
 - Demand for livestock products increasing
- Can capture this through multi-product simulation models
 - Rising demand for superior products creates demand for inputs such as grain & oilseeds
- A simple, econometric alternative?



Econometric Approach

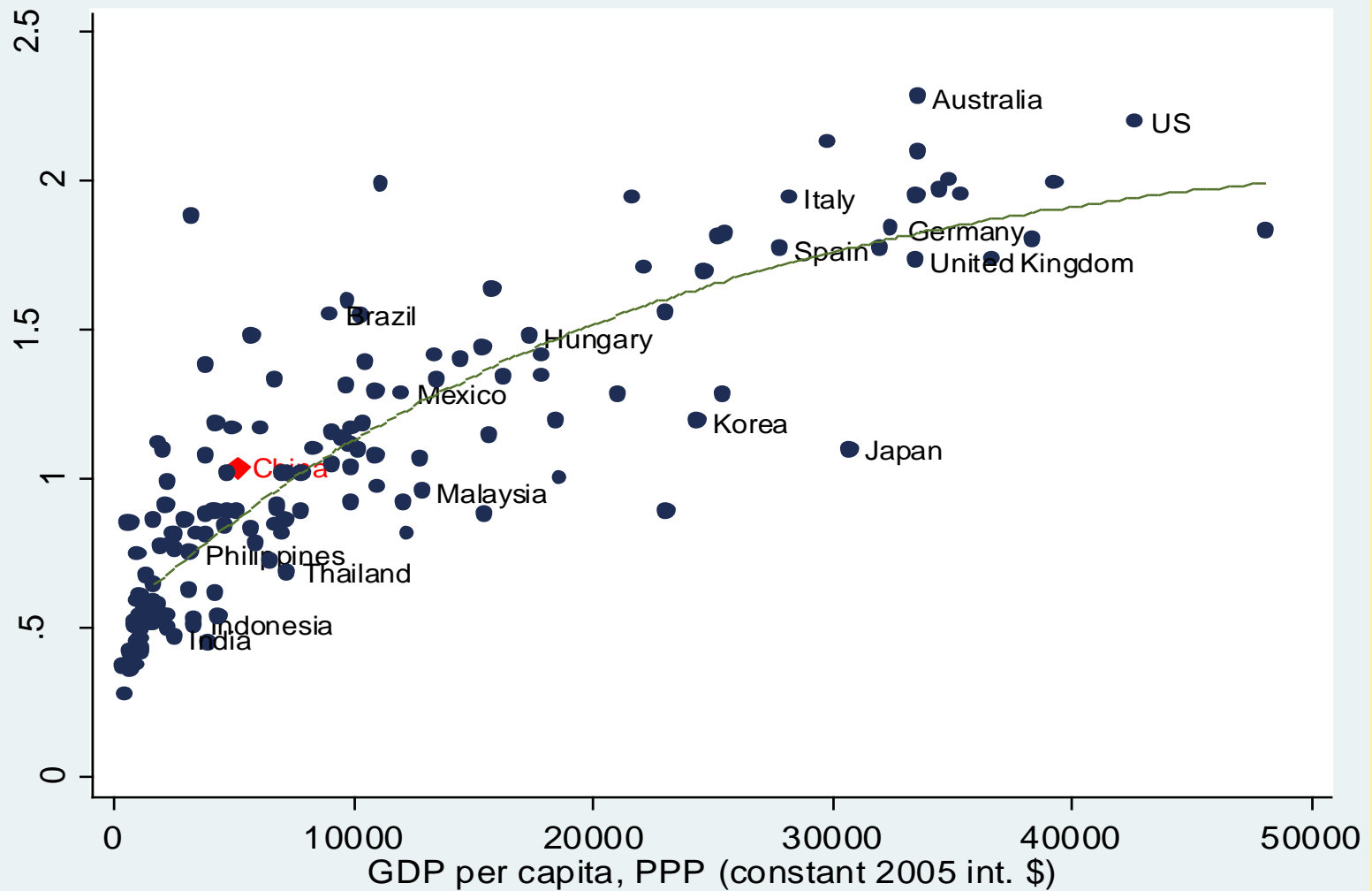
- Draw on work by Yotopoulos & by Rask
 - Based on the experience of 155 countries
- Calculate the cereal equivalents required to produce diets as incomes grow
- Estimate reduced-form relationship between real income & consumption



Some cereal equivalents

Products	Coefficients
Beef	19.8
Pork	8.5
Poultry	4.7
Fish, Seafood	3.3
Eggs	3.8
Milk	1.2

Estimated demand





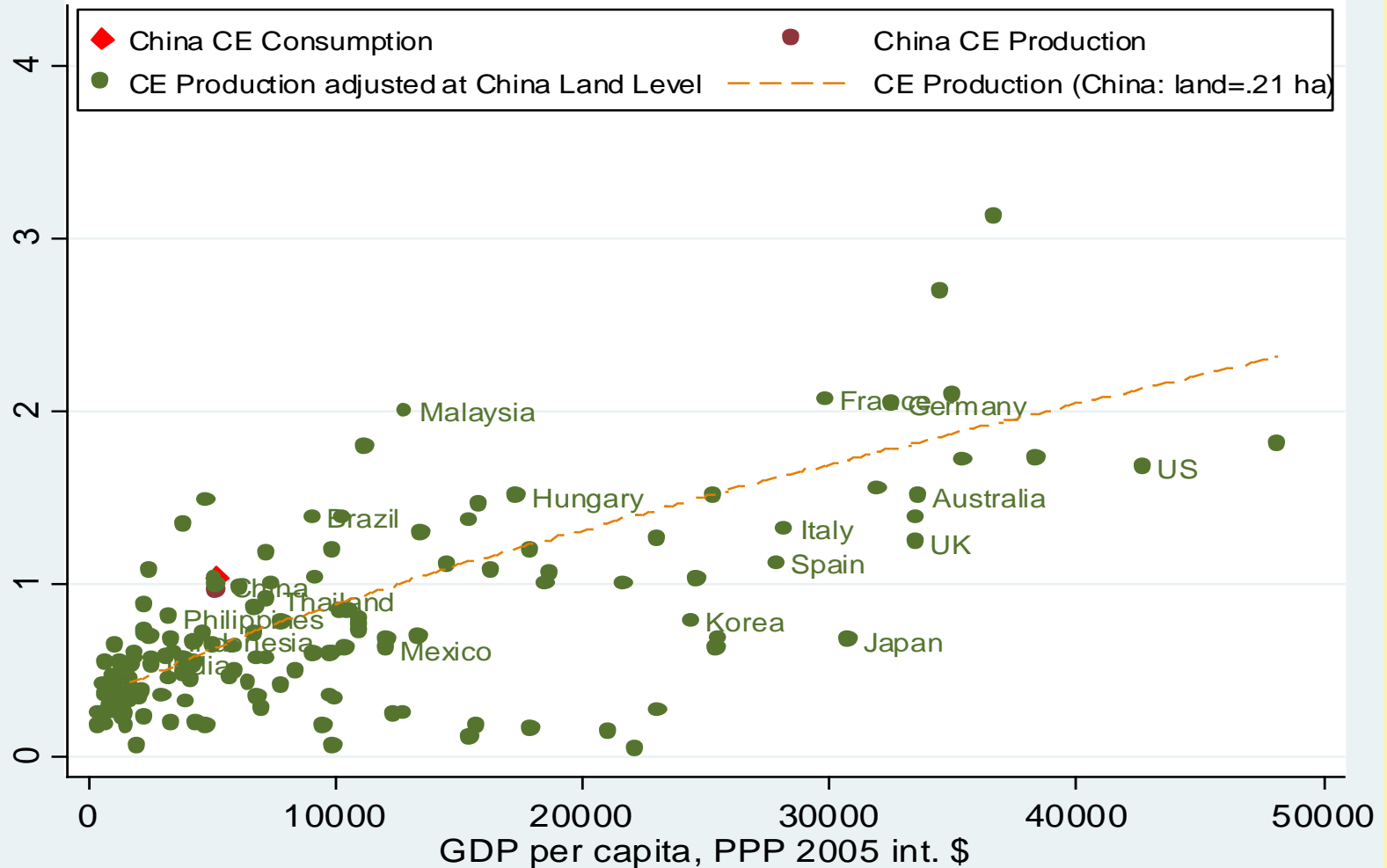
But remains concave

- Eventually, the rate of growth of demand per person begins to slow
 - China's population peaks around 2025
- Key question is how the growth rate changes relative to the growth of output?



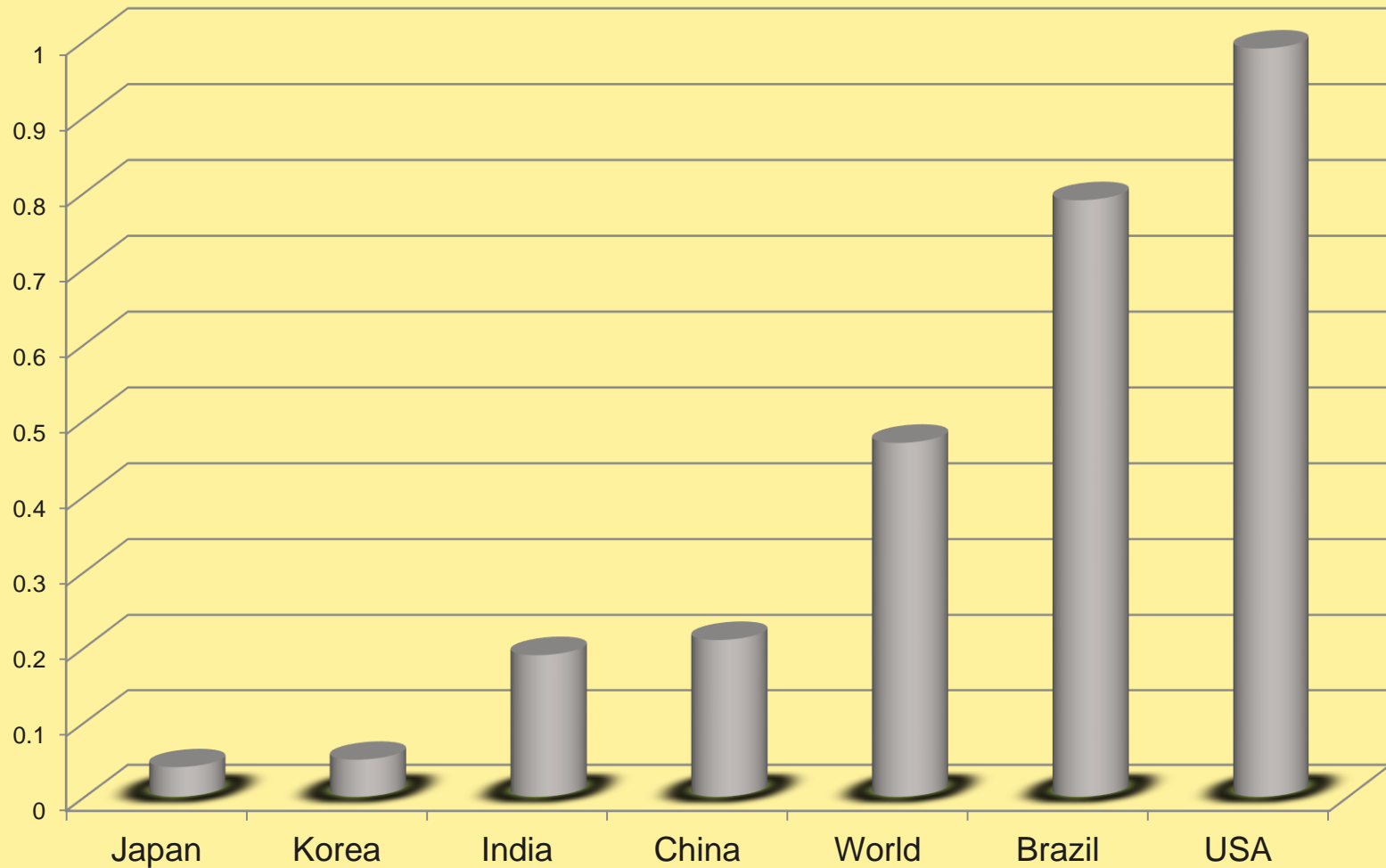
Supply

Agric CE prodn vs income

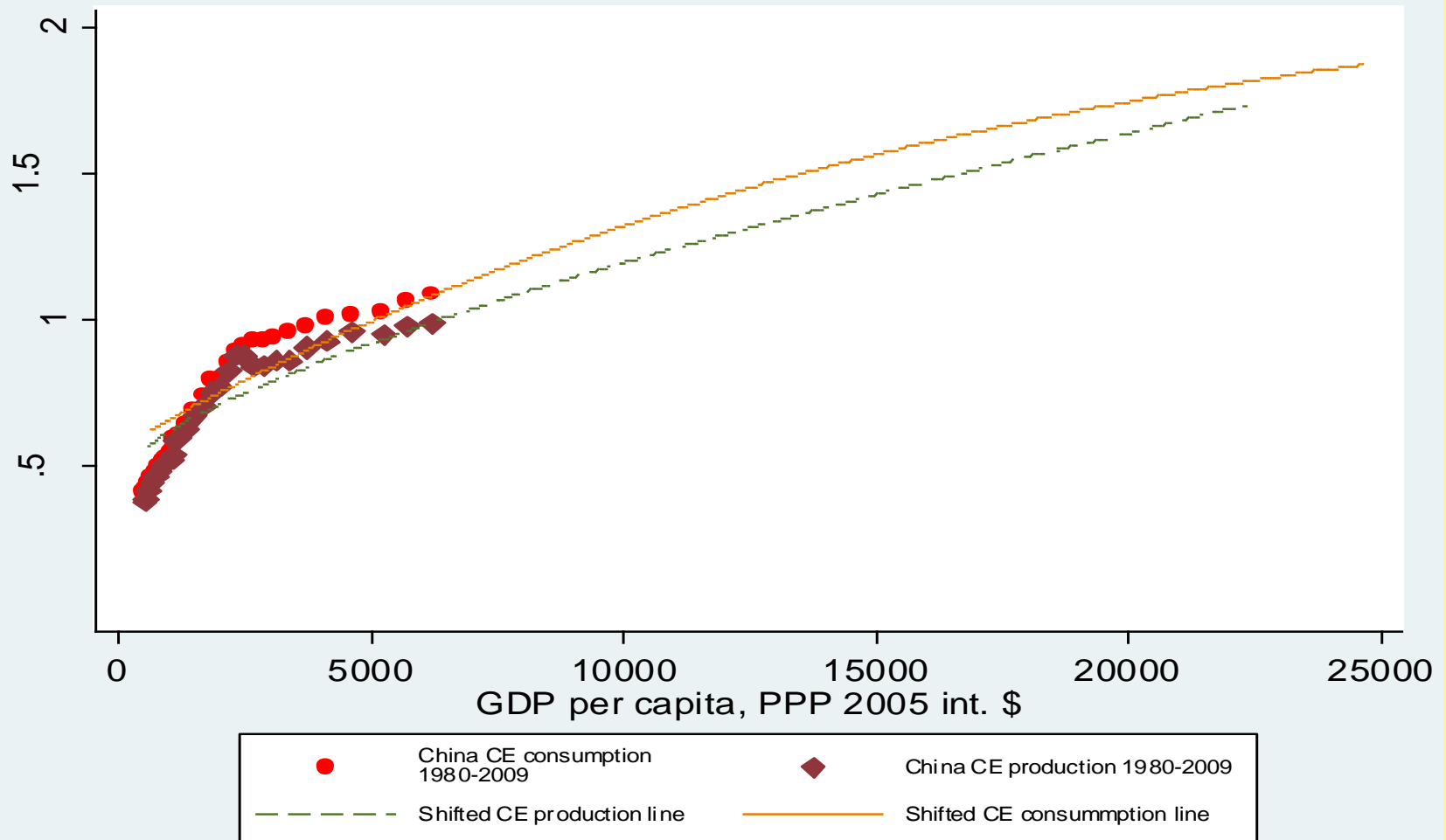




Agricultural land per capita

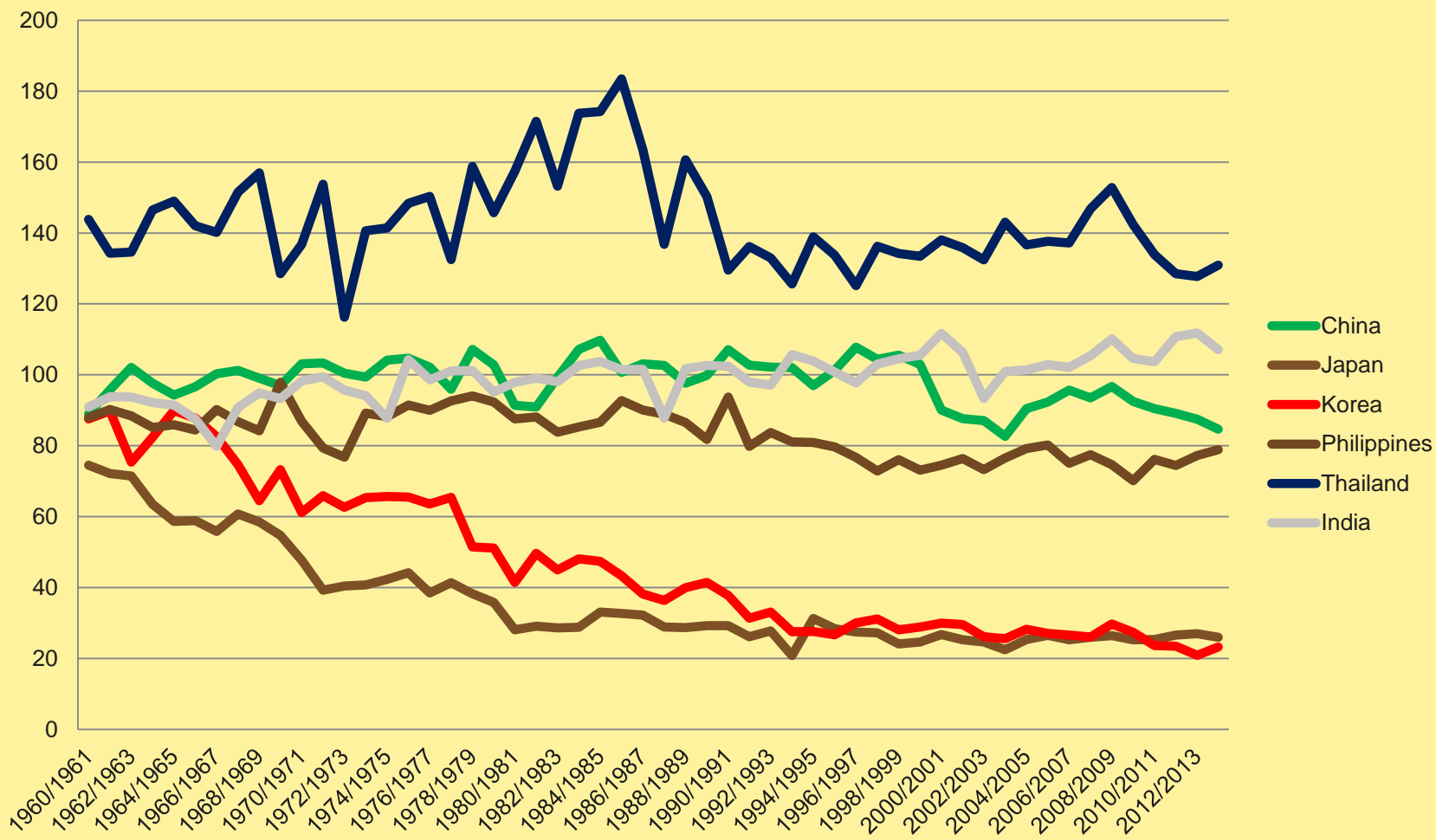


China- net imports





E Asia grain self-sufficiency





Conclusions

- Extraordinary mobility of labor out of agriculture in Australia (and NZ) helped avoid large income gaps
 - What did we do right?
- China & India much less land-scarce than Korea and Japan
 - Income growth unlikely to raise imports as much as the Japan/Korea case– may even decline
 - Protection shifts imports to animal feeds so reducing protection on finished products important for Australia



References

Boehm, E. (1993) *Twentieth Century Economic Development in Australia*, 3rd. ed. Longman Cheshire, Melbourne.

Fukase, E. & Martin, W. (2016), 'Who Will Feed China in the 21st Century? Income Growth and Food Demand and Supply in China' *Journal of Agricultural Economics* 67(1):3–23. Open access.