# *Agricultural trade reform in the WTO:*

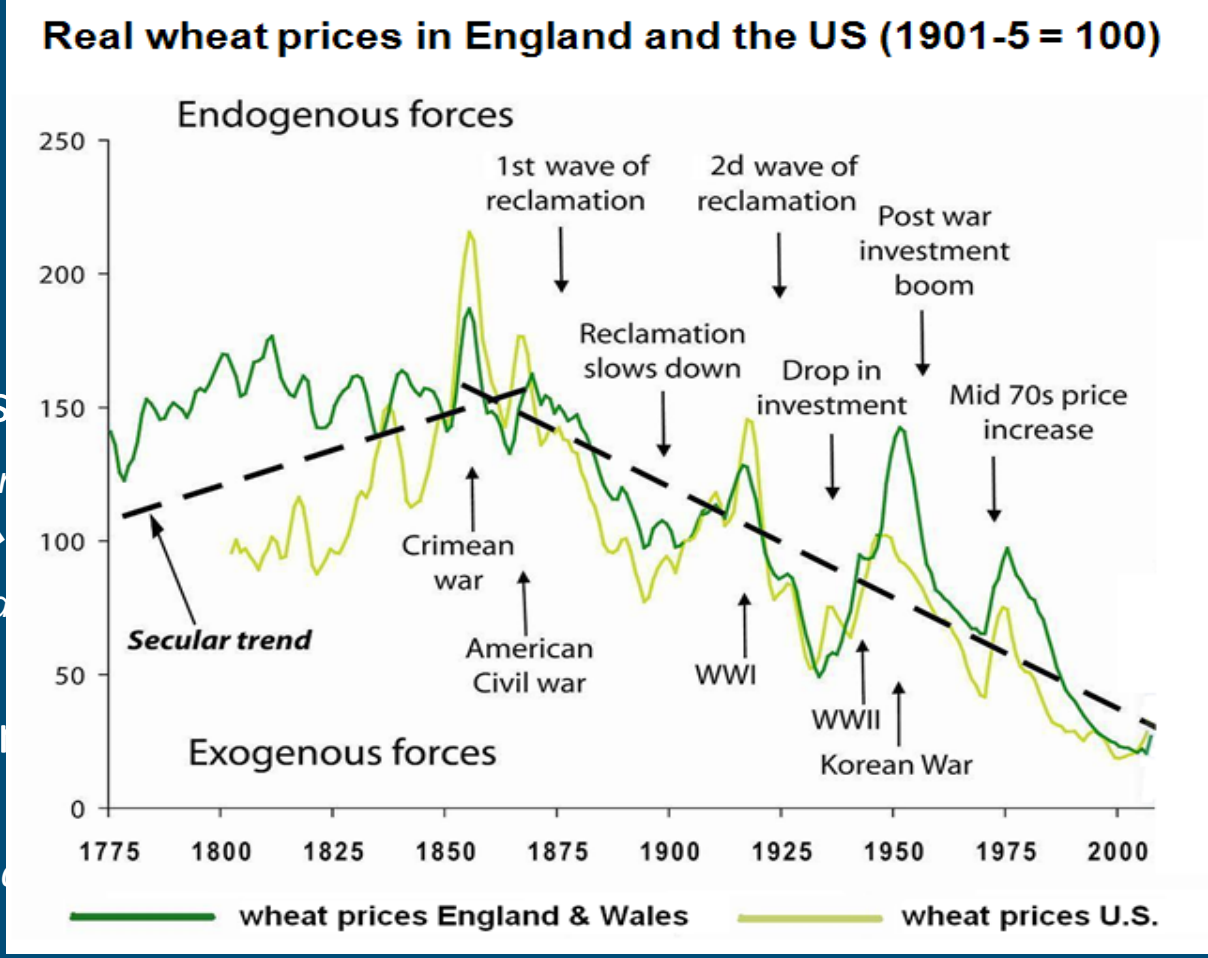
# Is it liberalization? Is it future proof?

Niek Koning
Wageningen University

WAGENINGEN UR
For quality of life

# The issue

- C. 1900, science & fos
  - *Transport Revolution → r*
  - *Fertilizer & new seeds →*
  - *Substitute products → so*
- It caused new price pr
  - *Leapfrogging of investor*
  - *Farmers caught in a trea*




- Tussle about multilateral coordination
  - *Without supply management, protection entailed import substitution and dumping*
  - *From 1930s: attempts at coordination through managed trade → GATT arts. 11, 16 & 20*
  - *From Uruguay Round: 'liberalization' with exemptions for direct payments*
- ***Is this approach sustainable in view of future developments?***

# The issue

- C. 1900, science & fossil fuels changed scarcity into abundance
  - *Transport Revolution → reclamations in scarcely populated areas*
  - *Fertilizer & new seeds → revolution in yields*
  - *Substitute products → saving on farm products*
- It caused new price problems → government intervention in markets
  - *Leapfrogging of investor expectations and prices → cobweb cycles*
  - *Farmers caught in a treadmill that caused recurrent overproduction*
- Tussle about multilateral coordination
  - *Without supply management, protection entailed import substitution and dumping*
  - *From 1930s: attempts at coordination through managed trade → GATT arts. 11, 16 & 20*
  - *From Uruguay Round: 'liberalization' with exemptions for direct payments*
- ***Is this approach sustainable in view of future developments?***

# The situation

- Until 2050, global demand may triple to 20 GT of grain equivalents
  - *Current production:7 GT*
  - *2050 demand for food & feed: 12 GT*
  - *2050 demand for energy: 8 GT*

Crop + pasture

- World population from 7 to c. 9 billion
- Increase in meat consumption

Assumptions:
- 10% of primary energy consumption expected by Schiffer (2008)
- Energy input-output ratio 0.25

NB: supplying the whole world with a European-type diet would require 18 GT!

# The situation

- Until 2050, global demand may triple to 20 GT of grain equivalents
  - *Current production:7 GT*
  - *2050 demand for food & feed: 12 GT*
  - *2050 demand for energy: 8 GT*
- Technical potential of world agriculture: 32-47 GTE

Data Luiten (1995) revised by Koning *et al*. (2008)

Biorefinement, improved plant metabolic efficiency, and new non-farm biomass production systems can stretch this, *but:*

- Biorefinement is a double-edged sword (raises bio-energy demand)
- Other options are remote possibilities

# The situation

- Until 2050, global demand may triple to 20 GT of grain equivalents
  - *Current production:7 GT*
  - *2050 demand for food & feed: 12 GT*
  - *2050 demand for energy: 8 GT*
- Technical potential of world agriculture: 32-47 GTE
- Supply will tighten long before this potential has been exhausted
  - *Producers maximize profit, not output → production limited by diminishing returns*
  - *Unfavourable prices in less favoured areas discourage productive high-input techniques*
  - *Future rises in input prices may extend this effect to more areas*
  - *Research for new high input techniques may become less profitable than in the past*

E.g., 6-fold increase in irrigated area is technically, but not economically feasible

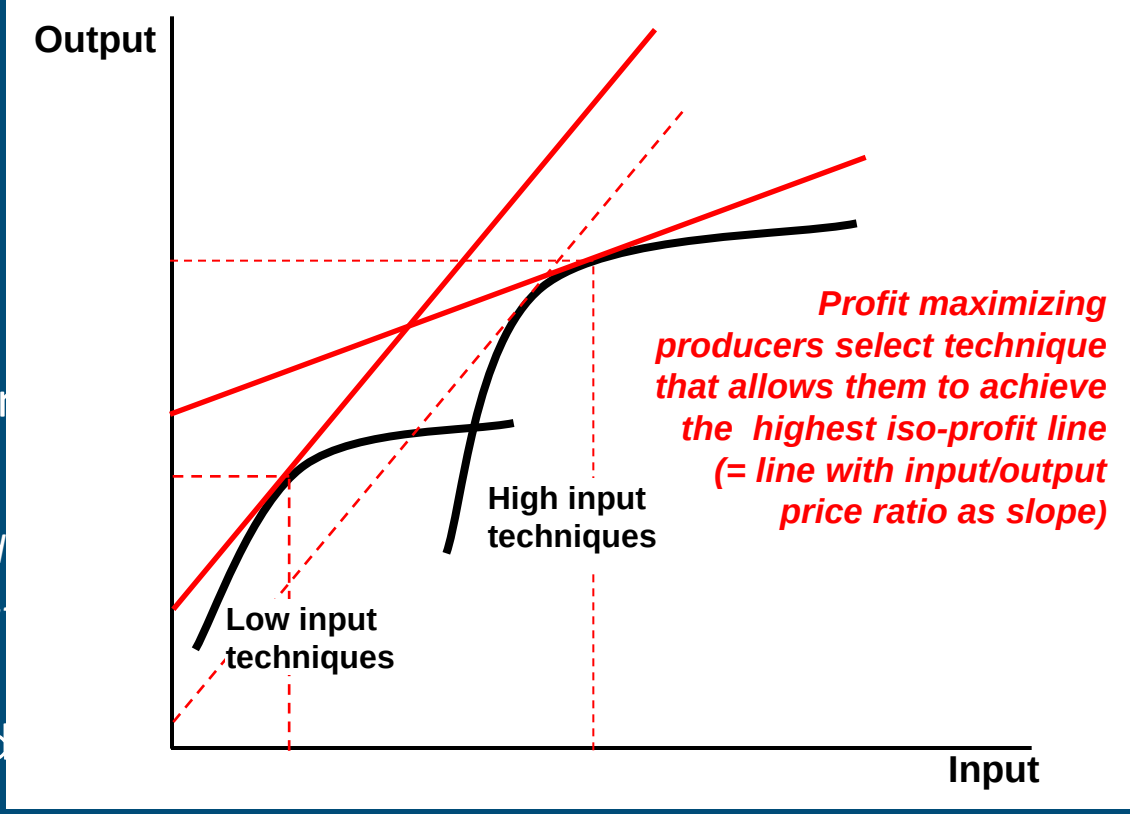
P & fossil fuel depletion

Costs will increase because room for raising potential yield by changing architecture and growth rhythm of plants is being depleted

Benefits will be limited by rising input prices

# The situation

- Until 2050, global demand r
  - *Current production:7 GT*
  - *2050 demand for food & feed*
  - *2050 demand for energy: 8 G*
- Technical potential of world
- Supply will tighten long before this potential has been exhausted
  - *Producers maximize profit, not output → production limited by diminishing returns*
  - *Unfavourable prices in less favoured areas discourage productive high-input techniques*
  - *Future rises in input prices may extend this effect to more areas*
  - *Research for new high input techniques may become less profitable than in the past*




P & fossil fuel depletion

Costs will increase because room for raising potential yield by changing architecture and growth rhythm of plants is being depleted

Benefits will be limited by rising input prices

# The situation

- Until 2050, global demand may triple to 20 GT of grain equivalents
  - *Current production:7 GT*
  - *2050 demand for food & feed: 12 GT*
  - *2050 demand for energy: 8 GT*
- Technical potential of world agriculture: 32-47 GTE
- Supply will tighten long before this potential has been exhausted
  - *Producers maximize profit, not output → production limited by diminishing returns*
  - *Unfavourable prices in less favoured areas discourage productive high-input techniques*
  - *Future rises in input prices may extend this effect to more areas*
  - *Research for new high input techniques may become less profitable than in the past*

– **Avoiding acute scarcity requires sufficient and *timely* investment**

*Is current trade reform future proof?*

# AoA 'liberalization' stems from past struggles

- 1920s-30s: cut-throat protectionist competition → first attempts at multilateral regulation through managed trade
- 1947: GATT
  - *Art. XX: Countries allowed to conclude commodity agreements*
  - *Art. XI & XVI: National protection bound to production/export controls*
- 1950s-'80s: GATT thwarted by rich countries
  - *Opposition to commodity controls for tropical crops*
  - *Violation of spirit and sometimes letter of articles XI & XVI*
- ES-EU trade ' war' → Uruguay Round Agreement on Agriculture
  - *All countries obliged to reduce price support (special & differential treatment of poor countries unmade by IFI conditionalities)*
  - *Direct payments allowed rich countries to whitewash protection-without-controls*

# Effects of AoA 'liberalization'

- Increased price volatility → discourages investment worldwide
  - *Phasing out of public buffer stocks and other forms of price stabilization*
  - *Global trade liberalization moderates effects of local environmental disturbances, but exacerbates those of global environmental disturbances, cobweb cycles and speculation*
- Shift to direct payments discourages investment in rich countries
  - *Direct payments stimulate investment less than price supports*
  - *They raise government costs which may induce a reduction of support levels*
  - *NB: both effects were intended but may turn out wrong in case of future scarcity*
- Import competition and preference erosion discourages investment in poor countries
- ***So timely investment to avoid future scarcity are not ensured***

# Better policy?

- Allow countries to protect their farmers as long as they don't disturb international markets
  - *Return to the idea of multilateral managed trade that inspired the agricultural GATT*
- Stabilize international agricultural prices within desirable price bands
  - *Create buffer stocks managed by supra-national institution*
  - *Defend a price floor by imposing trade quotas on high/middle-income countries*
  - *Defend a ceiling by imposing restrictions on agricultural biomass for non-foods*
- Coordinate agricultural and energy markets
- Combine this with public investment in research for sustainable yield increases, research for novel energy sources, and infrastructural works in poor countries