THE AGRICULTURAL MARKETPLACE IN THE 21ST CENTURY

MICHAEL BOEHLJE
CENTER FOR FOOD AND AGRICULTURAL BUSINESS
PURDUE UNIVERSITY
EIGHT CRITICAL DIMENSIONS/CHARACTERISTICS

- The Capital Market Challenges
- The Resurgence of Risk
- Growth/Consolidation/Structural Change
- The Sustainability Imperative
- Resource Availability/Productivity
- Innovation and Technology
- The Role of the Public Sector
- The Bioeconomy
THE CAPITAL MARKET CHALLENGES

☑ Higher Capital Costs
  ▪ Moderate asset ownership
  ▪ Slower growth
  ▪ Less leverage
  ▪ Asset values?

☑ Commodity/Financial Market Linkages
THE CAPITAL MARKET CHALLENGES

✓ Globalization of Funds Flows
  ▪ FDI
  ▪ Resource/land ownership
  ▪ Financial institution competition
  ▪ Integration of financial markets
  ▪ Some not market driven (China)

✓ The Capital Markets Drive
  ▪ Location of business activity
  ▪ Structural change
  ▪ Business model
  ▪ Risk/reward sharing
THE RESURGENCE OF RISK

✓ Increased operating risk and margin volatility
✓ Typical operating risk management instruments/strategies less effective
✓ Financial management strategies more crucial
  ▪ Fixing interest rates
  ▪ Increase working capital
  ▪ Extending terms
  ▪ Reduce debt
THE RESURGENCE OF RISK

✓ Strategic risks more important
✓ Potential Black Seven events – the tails count
✓ Risk intelligence and supply chain partners critical
GROWTH/CONSOLIDATION/STRUCTURAL CHANGE

✓ Economies of size and learning
✓ Reinvested earnings
✓ Market access – inputs and products
✓ Supply/value chain linkages/alliances
✓ Risk sharing business models (contracts, leasing, etc.)

Biological manufacturing of

→ SARM’s (specific attribute raw materials)
THE SUSTAINABILITY IMPERATIVE

✓ The capacity challenge
  ▪ Population growth
  ▪ Land availability
  ▪ Water quantity/quality/distribution
  ▪ Plant nutrient availability
  ▪ Economic growth
  ▪ Nutrition/malnourishment
THE SUSTAINABILITY IMPERATIVAIVE

✓ Performance criteria/metrics
  ▪ Economic and social
  ▪ Environmental
  ▪ Health and safety

✓ Creating value
  ▪ Freedom to operate
  ▪ Cost reductions
  ▪ Revenue increases
  ▪ Reputation
  ▪ Productivity enhancement
  ▪ Risk reduction

✓ Sustainability vs. productivity
RESOURCE AVAILABILITY/PRODUCTIVITY

✓ Land/Water/Open Space Resources
  ▪ Availability and use
  ▪ Degradation
  ▪ Siting and location
  ▪ Prices
  ▪ Ownership/property rights
  ▪ Energy availability/cost
RESOURCE AVAILABILITY/PRODUCTIVITY

✓ Wild lands
✓ Recreational uses
✓ Land use planning/urbanization
✓ Rural/urban water rights
✓ Odor
✓ Water quality
INNOVATION AND TECHNOLOGY

✓ Simplify/automate
✓ Product vs. process innovation
✓ Sustaining vs. disruptive innovation
✓ Private vs. public sector investment
✓ Technology/productivity is critical
INNOVATION AND TECHNOLOGY

✓ Biotech/nutrition – triple stack
✓ Information – PDAs, automatic capture
✓ Process control – GPS guidance
THE ROLE OF THE PUBLIC SECTOR

- Socialization of risk
- Financial markets/regulation
- Policies impacting agriculture
  - Energy-biofuels
  - Immigration
  - Environmental
  - Food safety
  - Transportation – rail/water/highway
  - Trade
  - Antitrust – hearings on AG
  - Farm Bill – ACRE, conservation and crop insurance
- Regulation/Intervention/Participation
THE BIOECONOMY

✓ Multifunctionality – AG will be raw material supplier for
  ▪ Nutrition
  ▪ Fiber
  ▪ Energy
  ▪ Industrial products/polymers
  ▪ Health/pharma

  Balance/trade-offs critical

✓ Credence attributes (animal welfare, local, family farm, organic, etc.) more common
THE BIOECONOMY

✓ Population/income growth will create opportunity
✓ Food and health/obesity linkages will be more important
✓ Food safety/traceability will drive business models/strategy
✓ Global hunger/malnutrition – how do we respond?
THE NEW ECONOMY

✓ Globalization (The World Is Flat)
  - Products
  - Resources
  - Finance

✓ Financialization
  - Commodity/real and financial markets more tightly linked
  - Capital markets drive the real world
  - But transparency/information is critical (The World is Curved)
THE NEW ECONOMY

✓ Consolidation/Integration
  ▪ Larger firms
  ▪ Along the value/supply chain
  ▪ Industry convergence (the Bioeconomy)