

Southern Regional Outlook Conference

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Agricultural Inputs Situation and Outlook

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University of Arkansas

The logo for the University of Arkansas, featuring the letters 'U of A' in a stylized, red, serif font. The 'U' is large and bold, with 'of' in a smaller, cursive script font nested within it, and 'A' is large and bold to the right.

**DIVISION OF AGRICULTURE**  
**RESEARCH & EXTENSION**

*University of Arkansas System*

# Summary of Weighted Average Costs

Expense Category	Cotton	Corn	Soybean	Wheat
Production Inputs	433.82	473.95	252.05	246.70
Repairs & Other Fees	73.21	36.45	23.55	22.60
Post-Harvest Expenses <sup>1</sup>	0.00	63.42	8.47	12.65
<b>Operating Expenses</b>	<b>507.03</b>	<b>573.83</b>	<b>284.08</b>	<b>281.95</b>
Fixed Costs	125.69	71.21	53.90	40.93
<b>Total Costs<sup>2</sup></b>	<b>632.72</b>	<b>645.03</b>	<b>337.98</b>	<b>322.88</b>

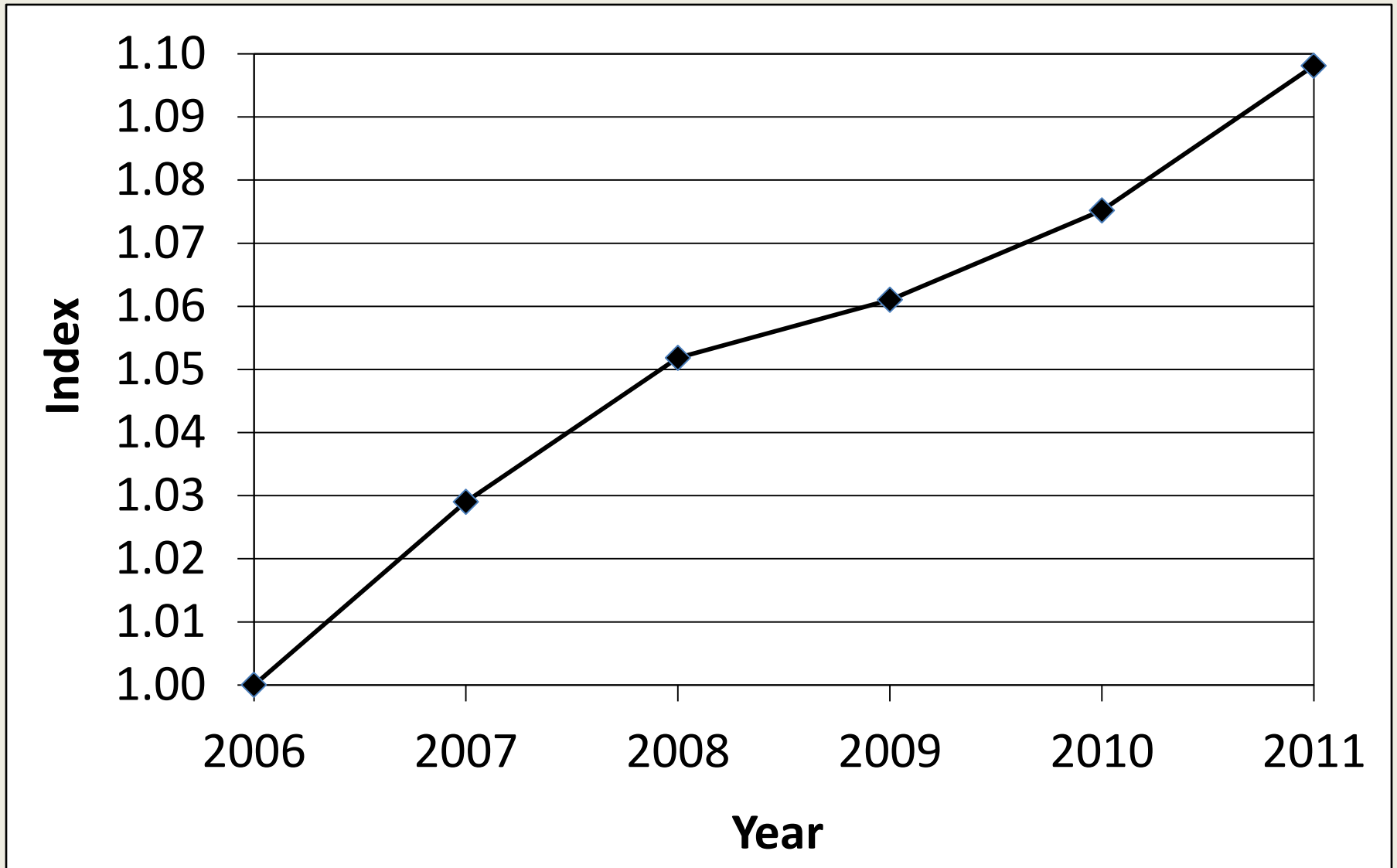
<sup>1</sup>Value of cottonseed sold deducted from cotton post-harvest expenses.

<sup>2</sup>Does not include land costs.

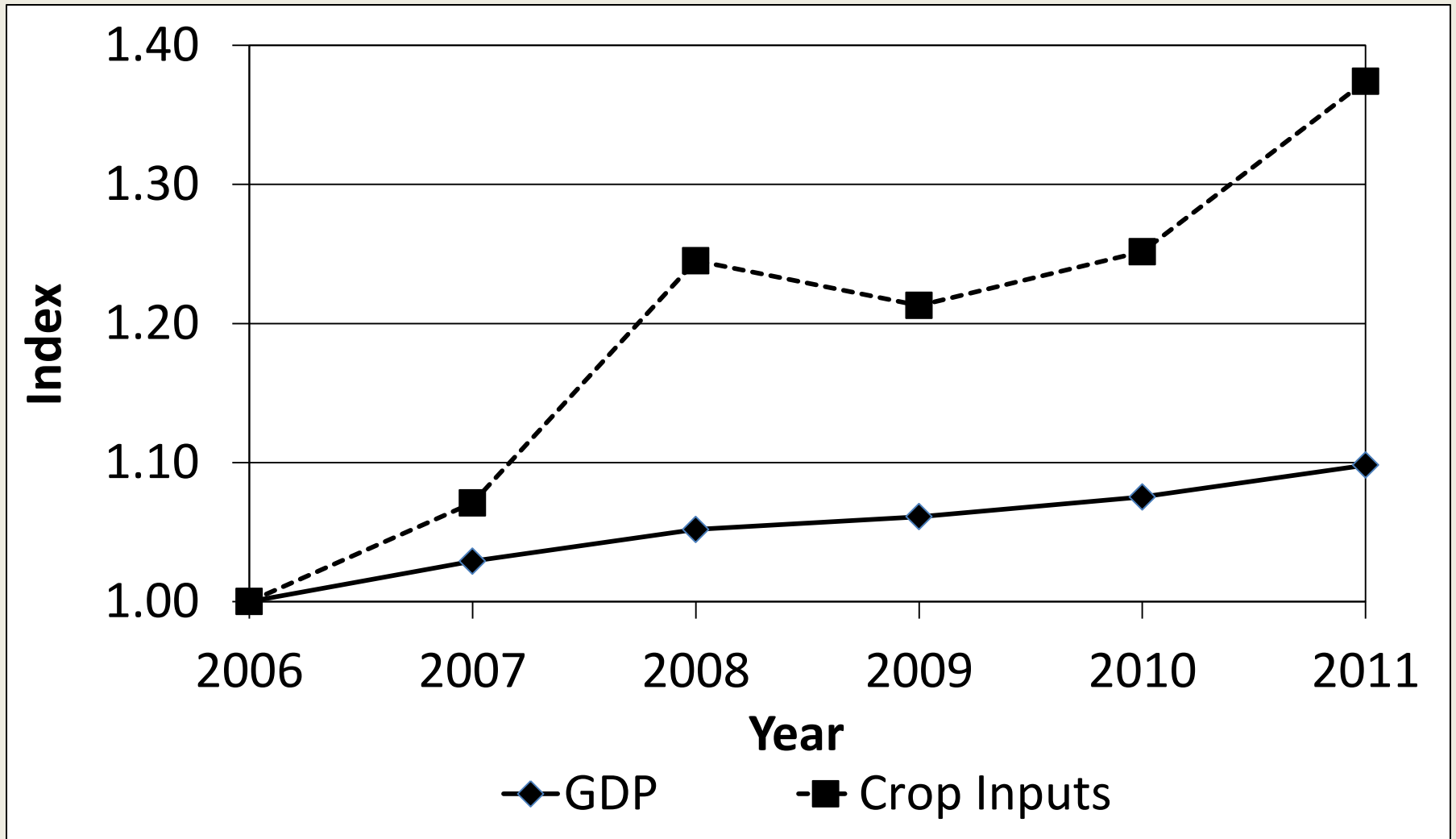
# Production Input Costs Details

Input	Cotton	Corn	Soybean	Wheat
Seed	106.26	108.75	70.20	30.00
Percent	24	23	28	12
Fertilizers	120.05	254.15	45.15	117.56
Percent	28	54	18	48
Chemicals	100.69	18.66	61.18	40.69
Percent	23	4	24	16
Diesel & Electricity	87.78	76.92	53.31	23.38
Percent	20	16	21	9
Labor, Field Activities	17.43	8.06	6.57	7.07
Percent	4	2	3	3
Other	1.60	7.41	15.65	28.00
Percent	0	2	6	11
<b>Total Production Inputs</b>	<b>433.82</b>	<b>473.95</b>	<b>252.05</b>	<b>246.70</b>
<b>Percent</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

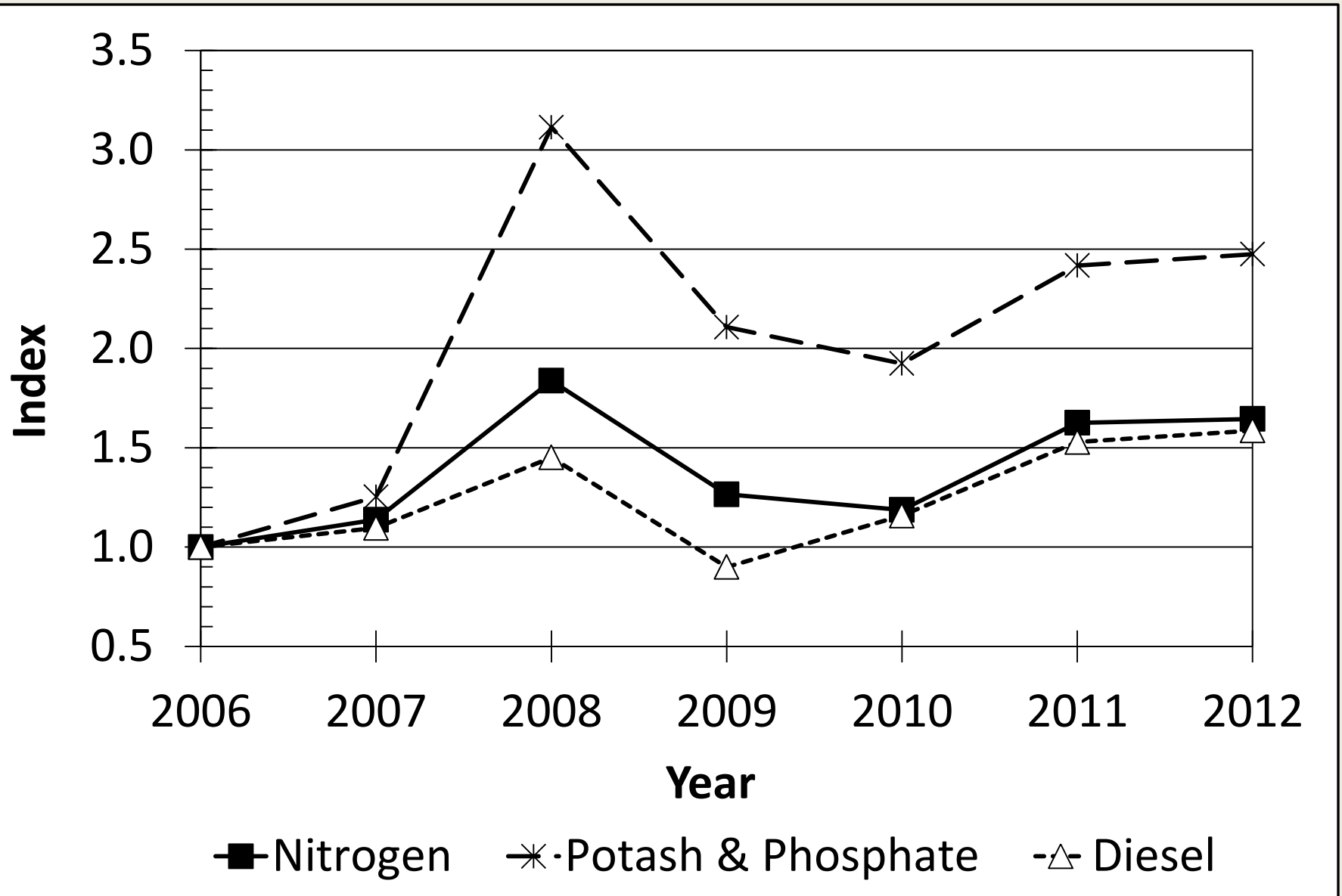
# Implicit Price Deflator of GDP, 2006-2011



# GDP Deflator and Crop Input Prices – Increased Relative Demand for Food



# Price Indexes for Major Fertilizers & Diesel



# Nitrogen Fertilizer

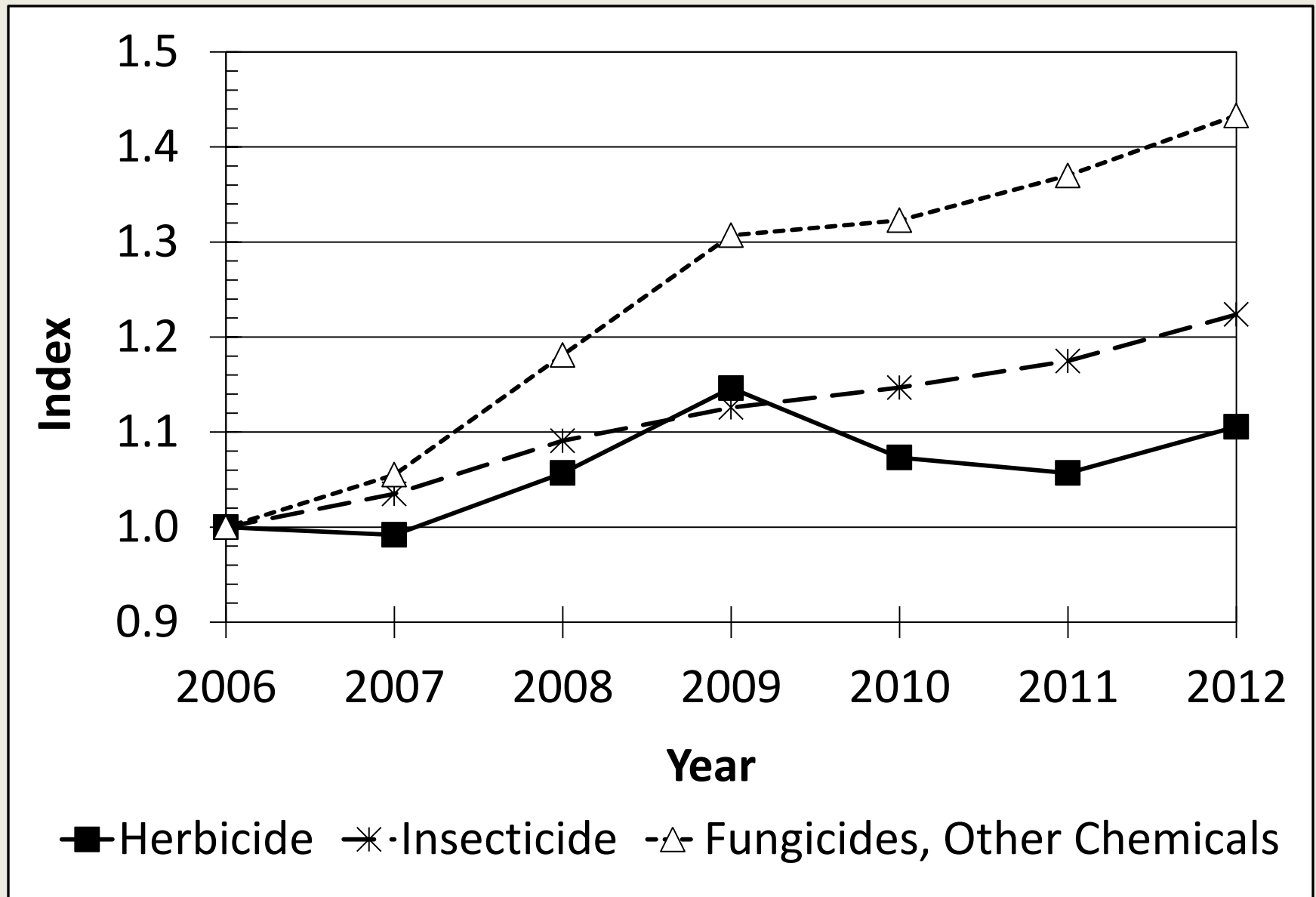
- Nitrogen: element is distilled from air.
- Ammonia fertilizer: Haber-Bosch process, nitrogen and hydrogen (or methane gas) are combined
- Urea: Bosch-Meiser process, anhydrous ammonia and carbon dioxide are combined
- In 2011, more than 54% of nitrogen fertilizer was imported.

# Phosphorous and Potassium Fertilizers

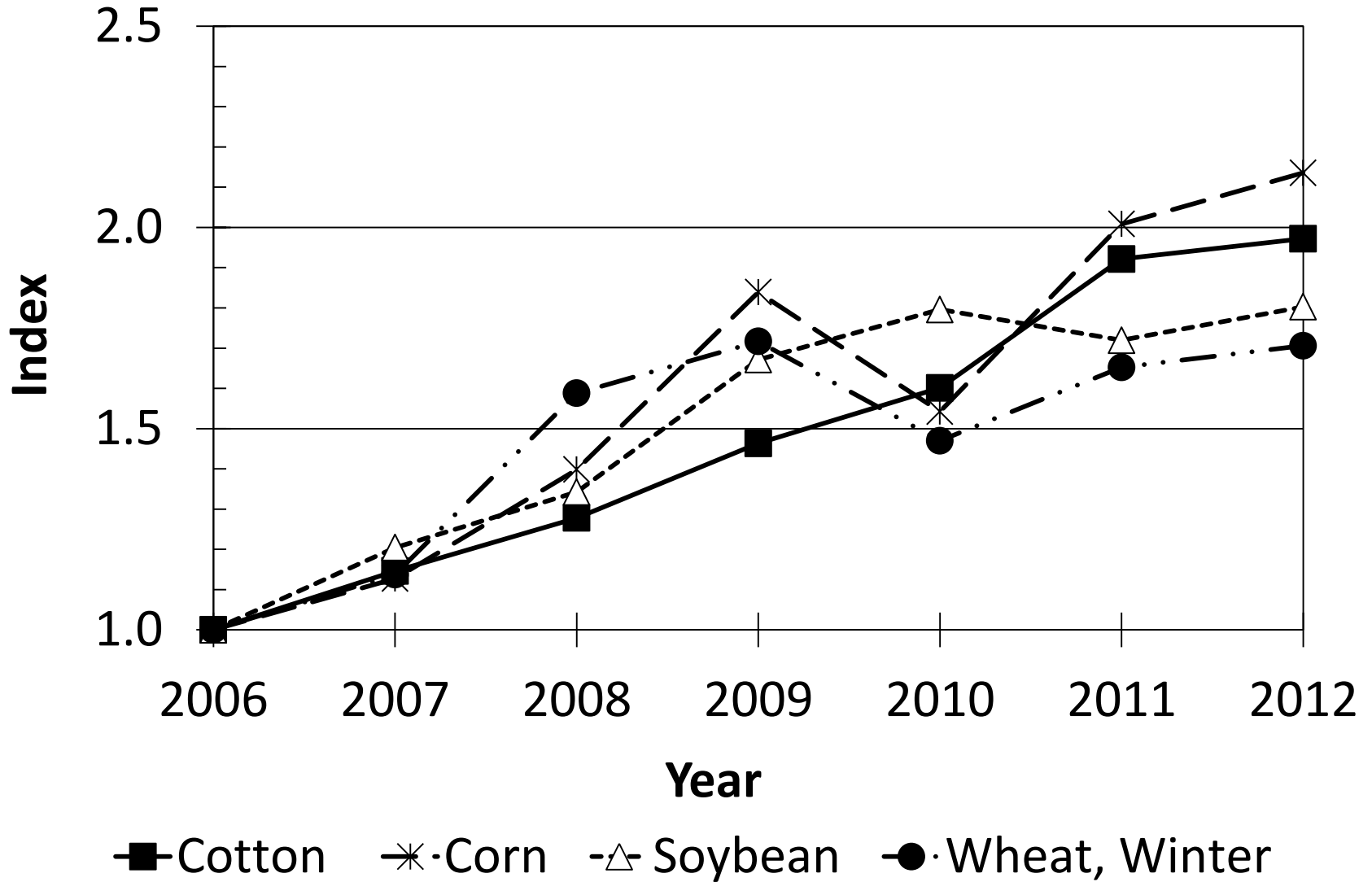
- Phosphate rock is major source of phosphorous fertilizer – global supplies of high quality rock are decreasing.
- Potash for potassium fertilizer is mined mostly from deep shaft mines.
- In 2011, 85% of potash was imported.
- In 2011, less than 10% of phosphate was imported.



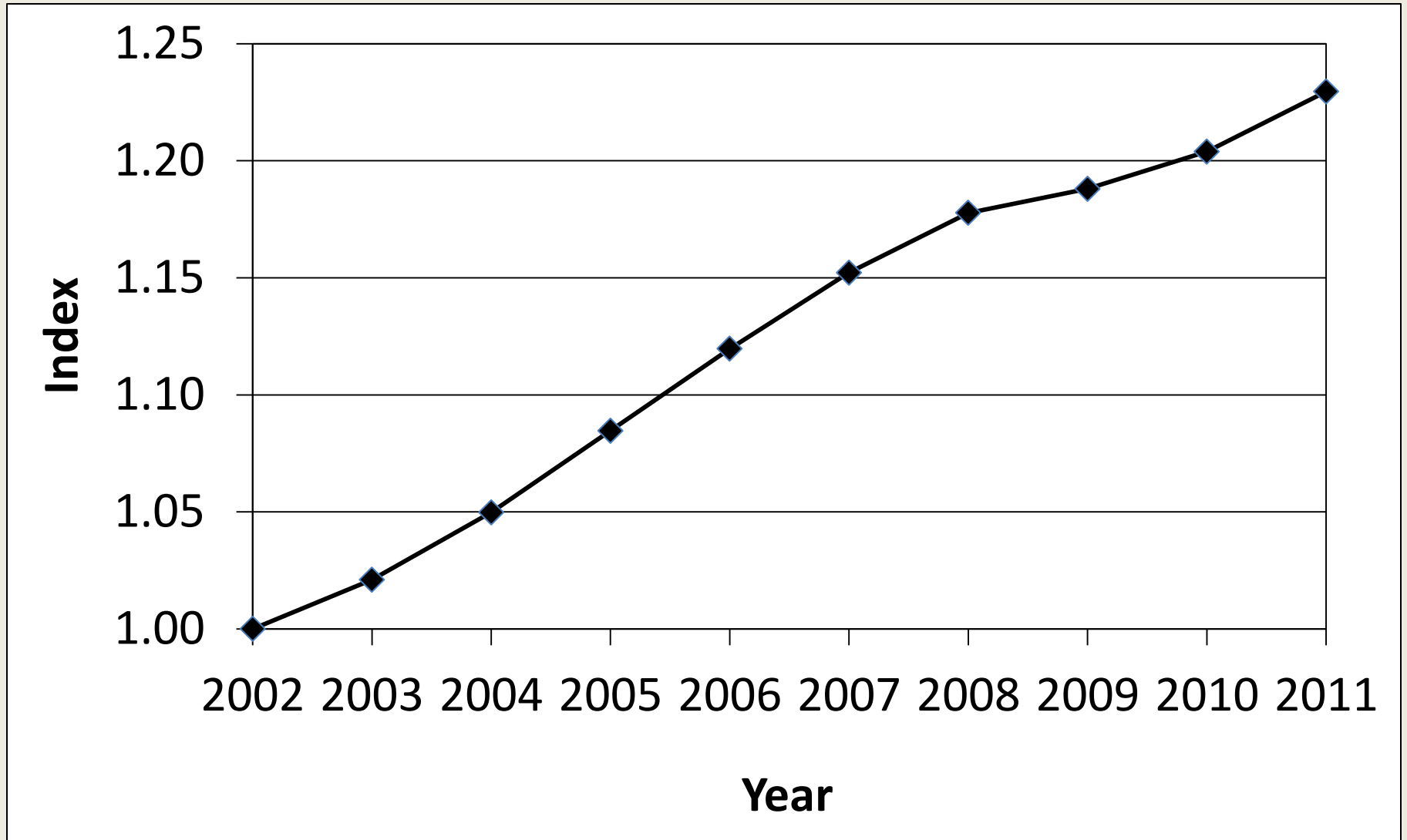
# Price Indexes for Agricultural Chemicals



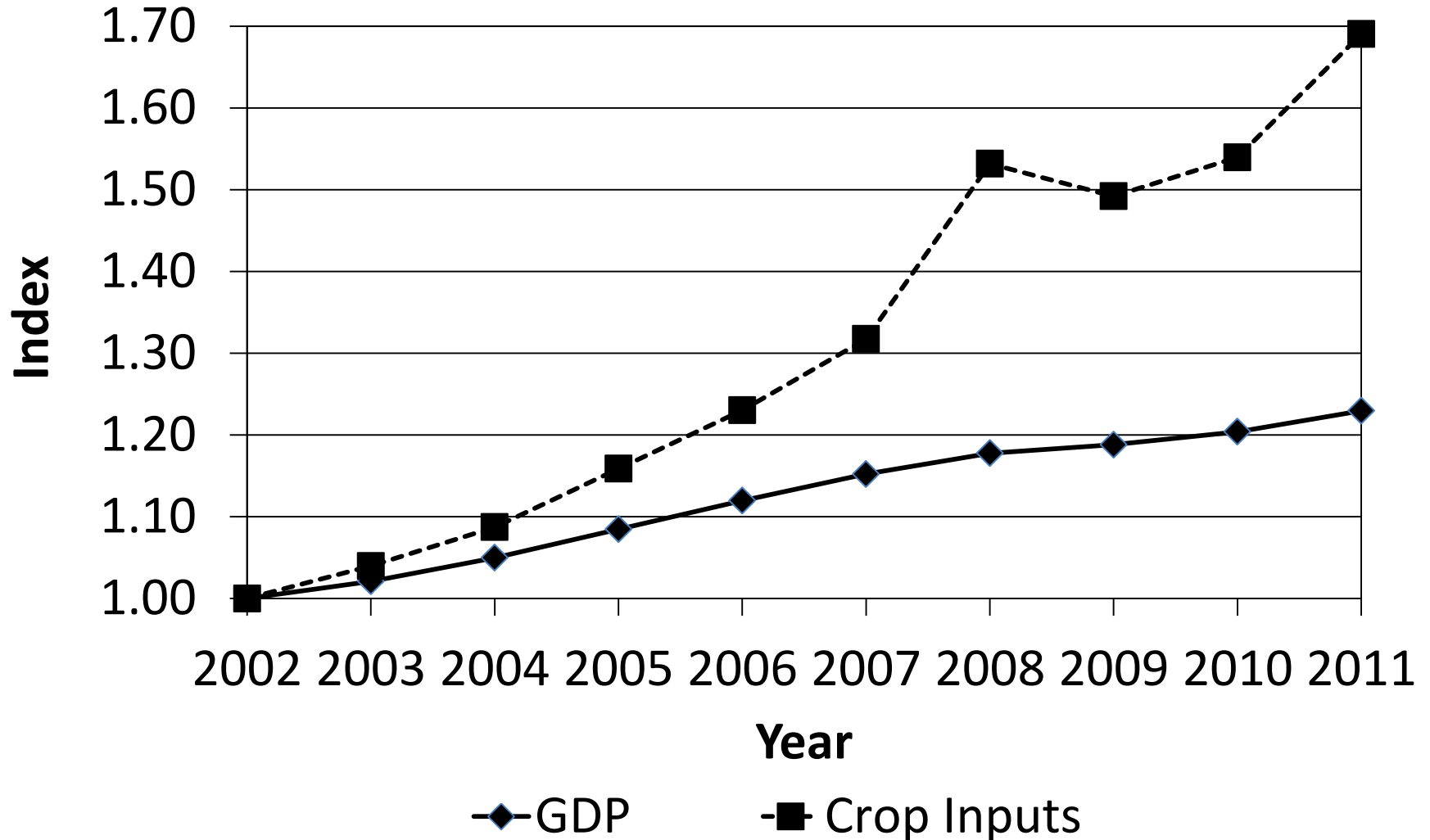
# Price Indexes for Seeds



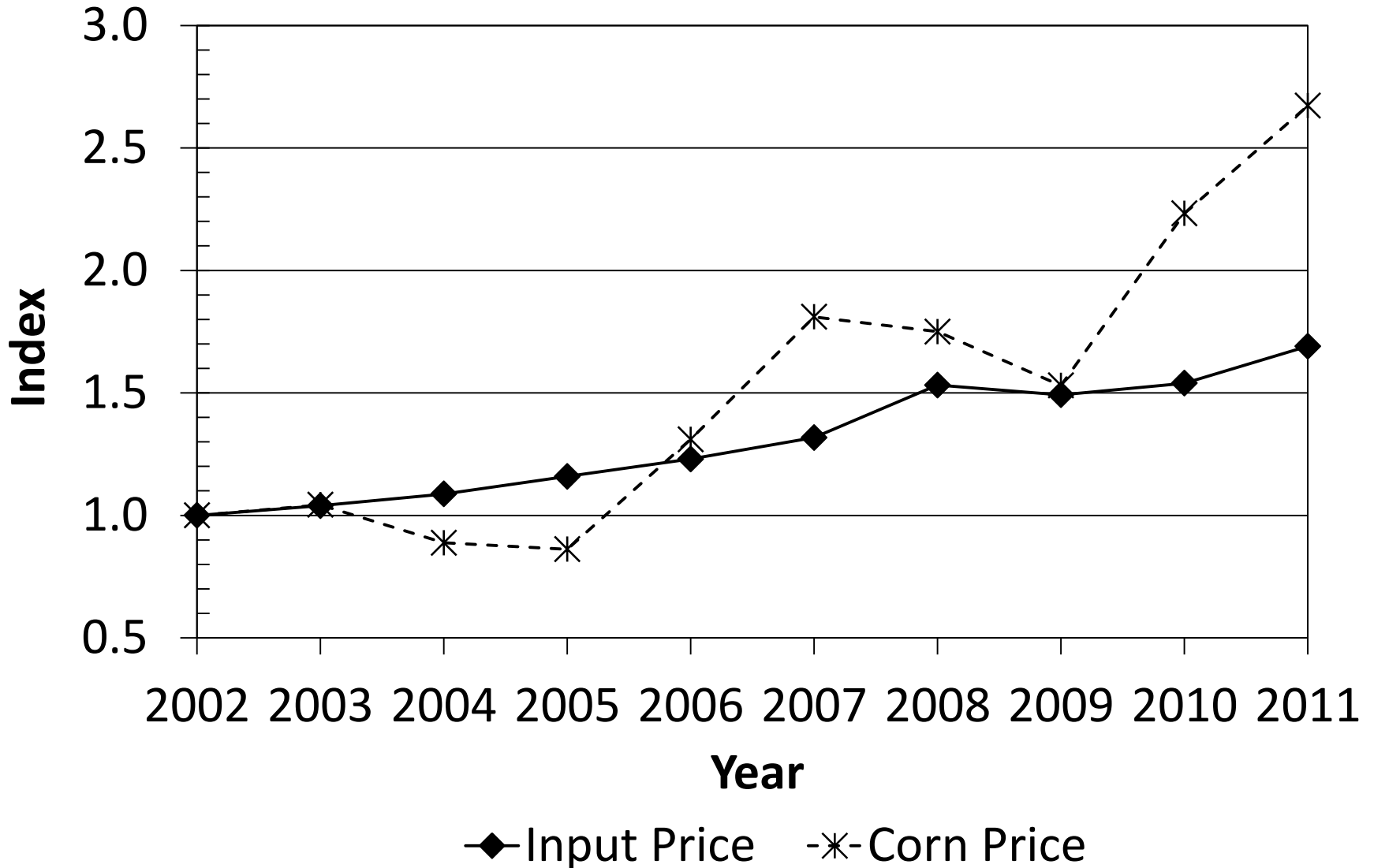
# Implicit Price Deflator of GDP, 2002-2011



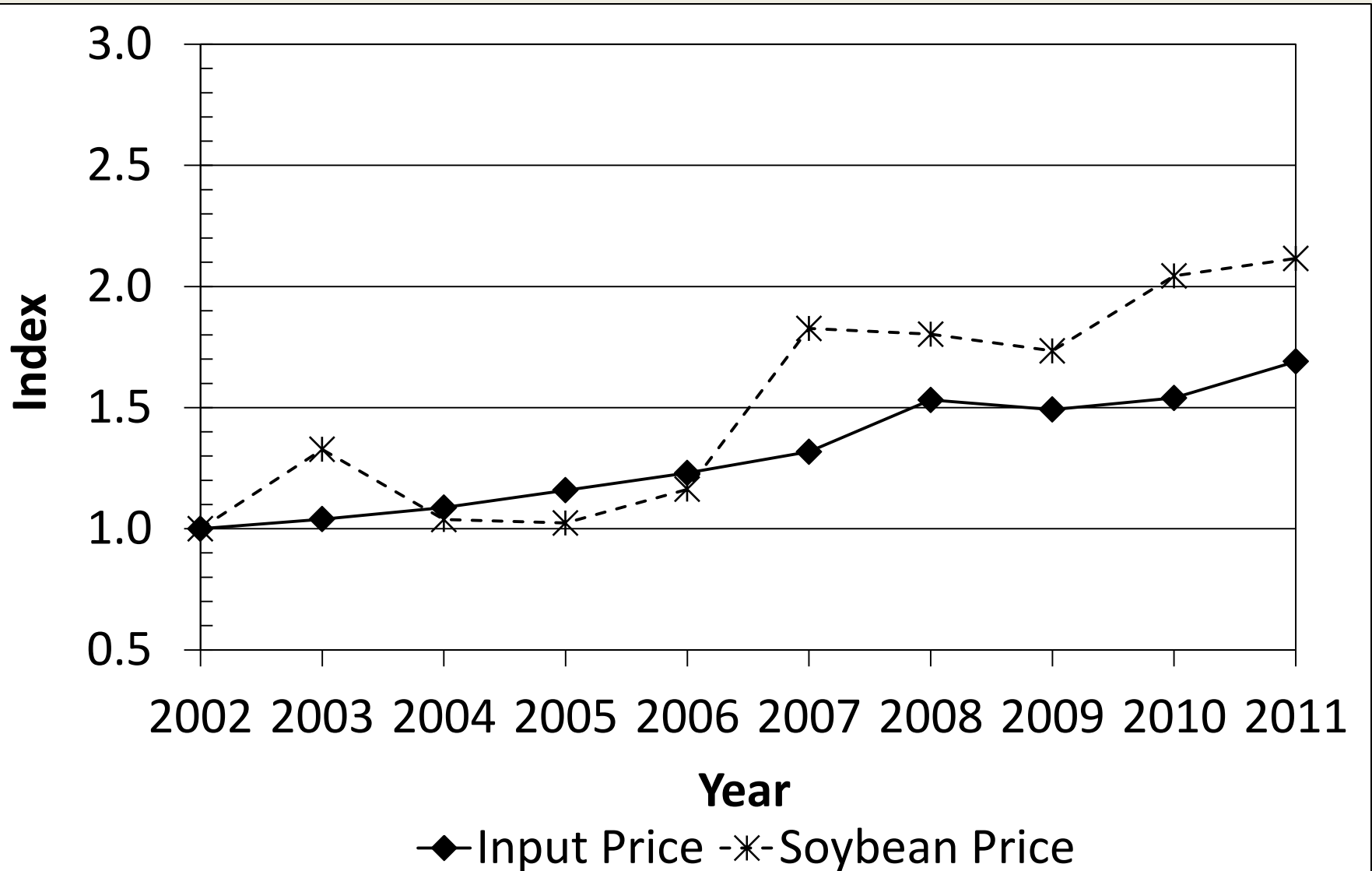
# GDP Deflator and Crop Input Prices – Long-term Relative Demand for Food



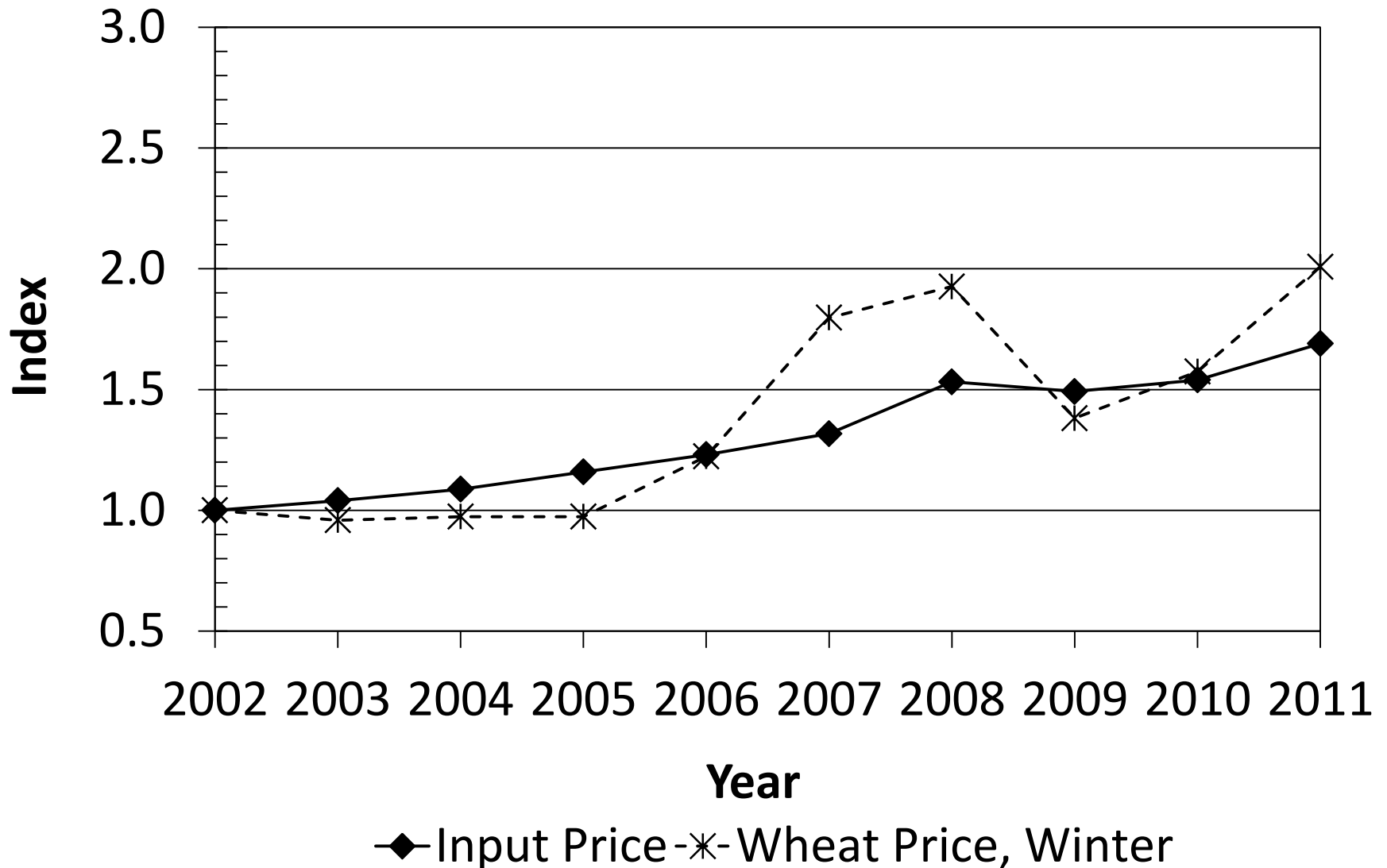
# Crop Input Prices and Corn Price



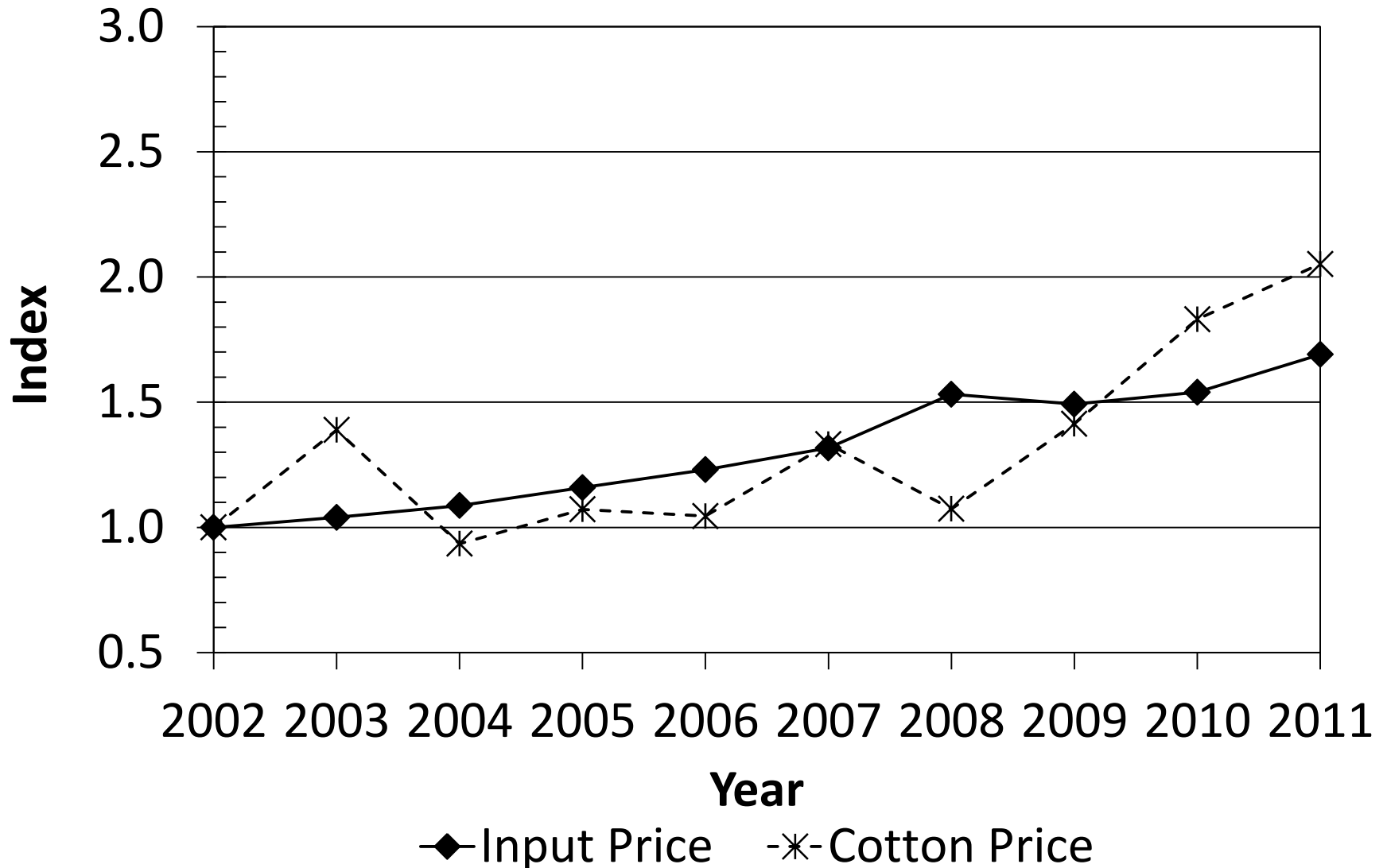
# Crop Input Prices and Soybean Price



# Crop Input Prices and Wheat Price



# Crop Input Prices and Cotton Price

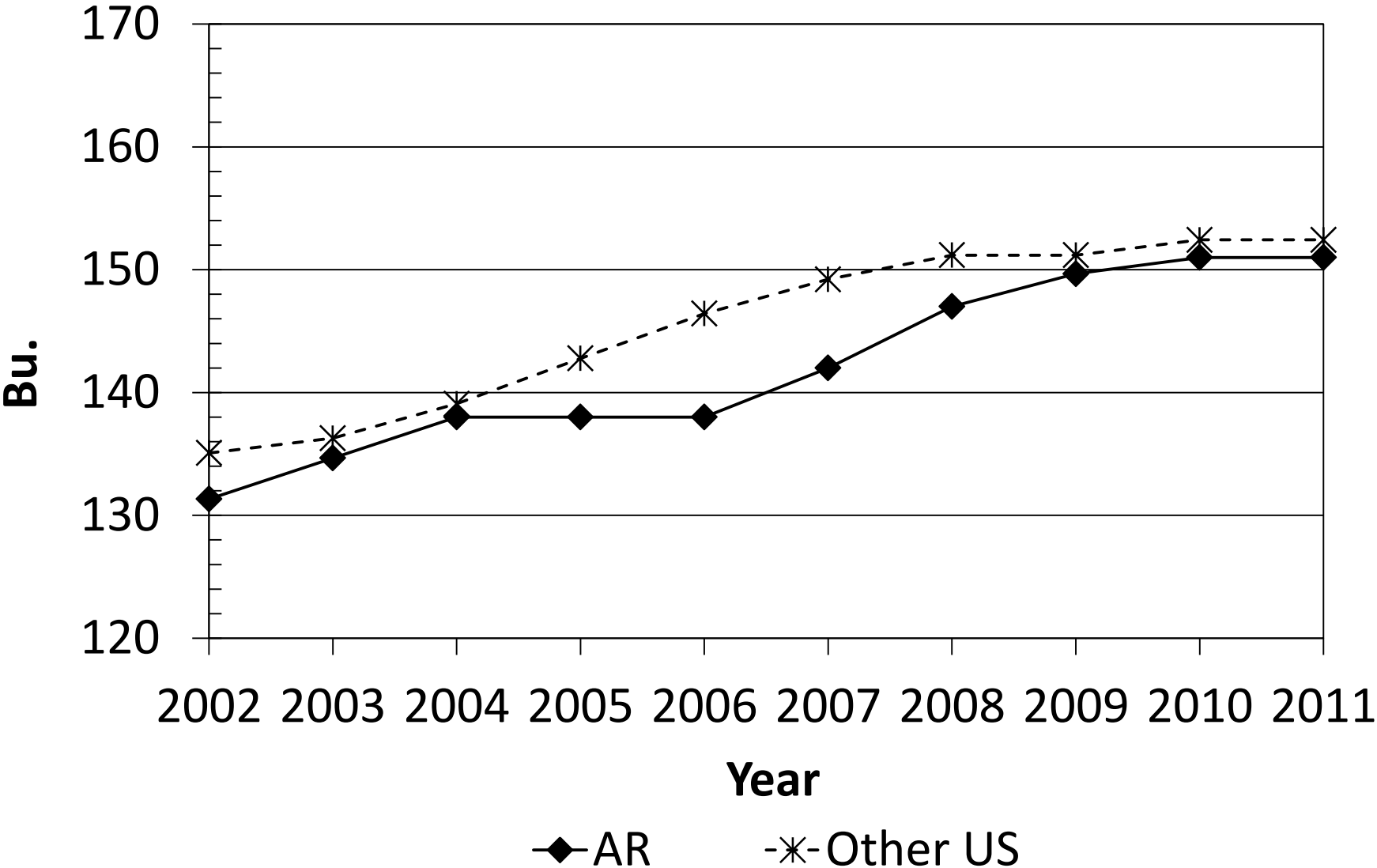




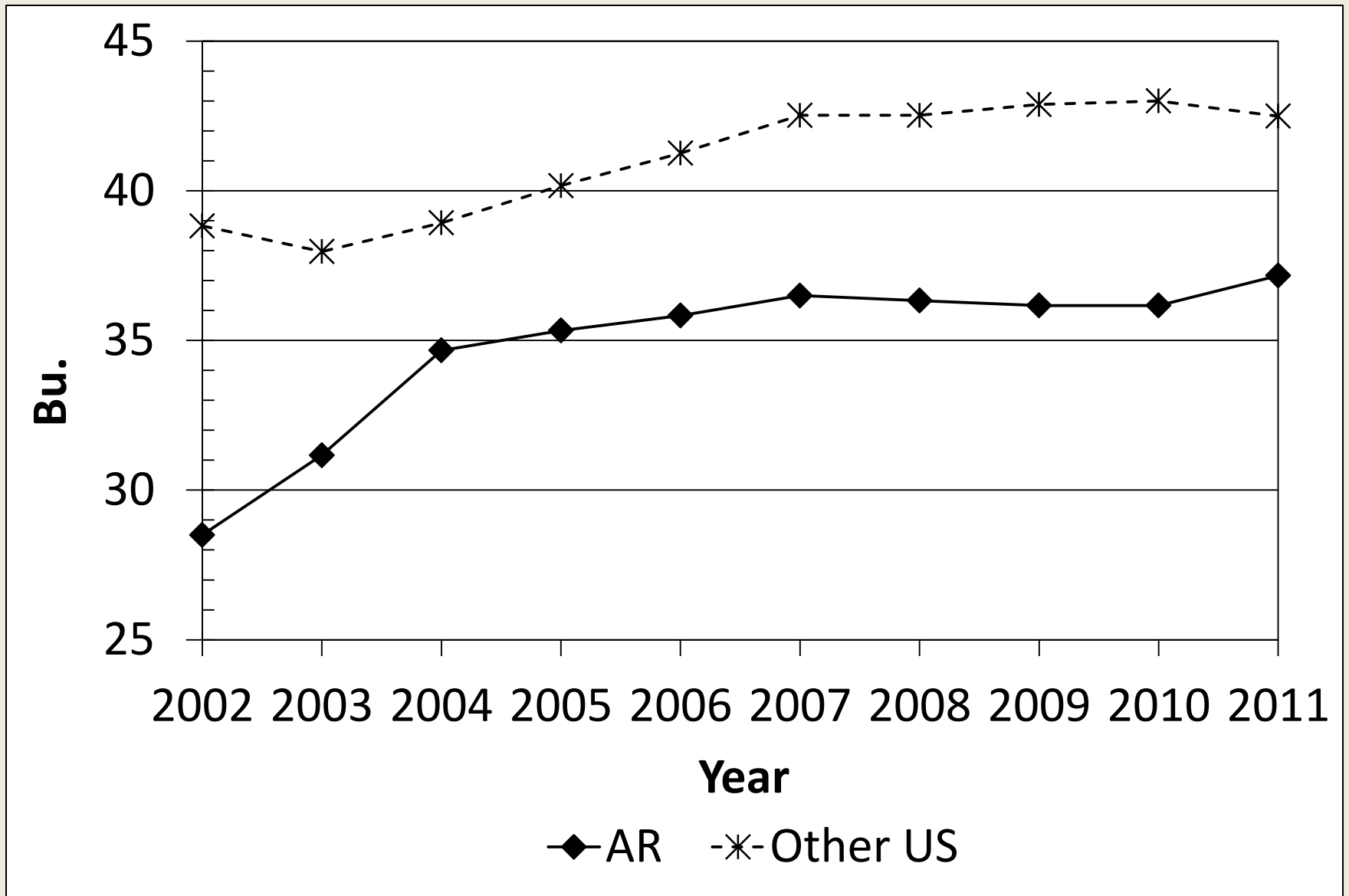
# Topic

- Unit Input Costs
- Yield

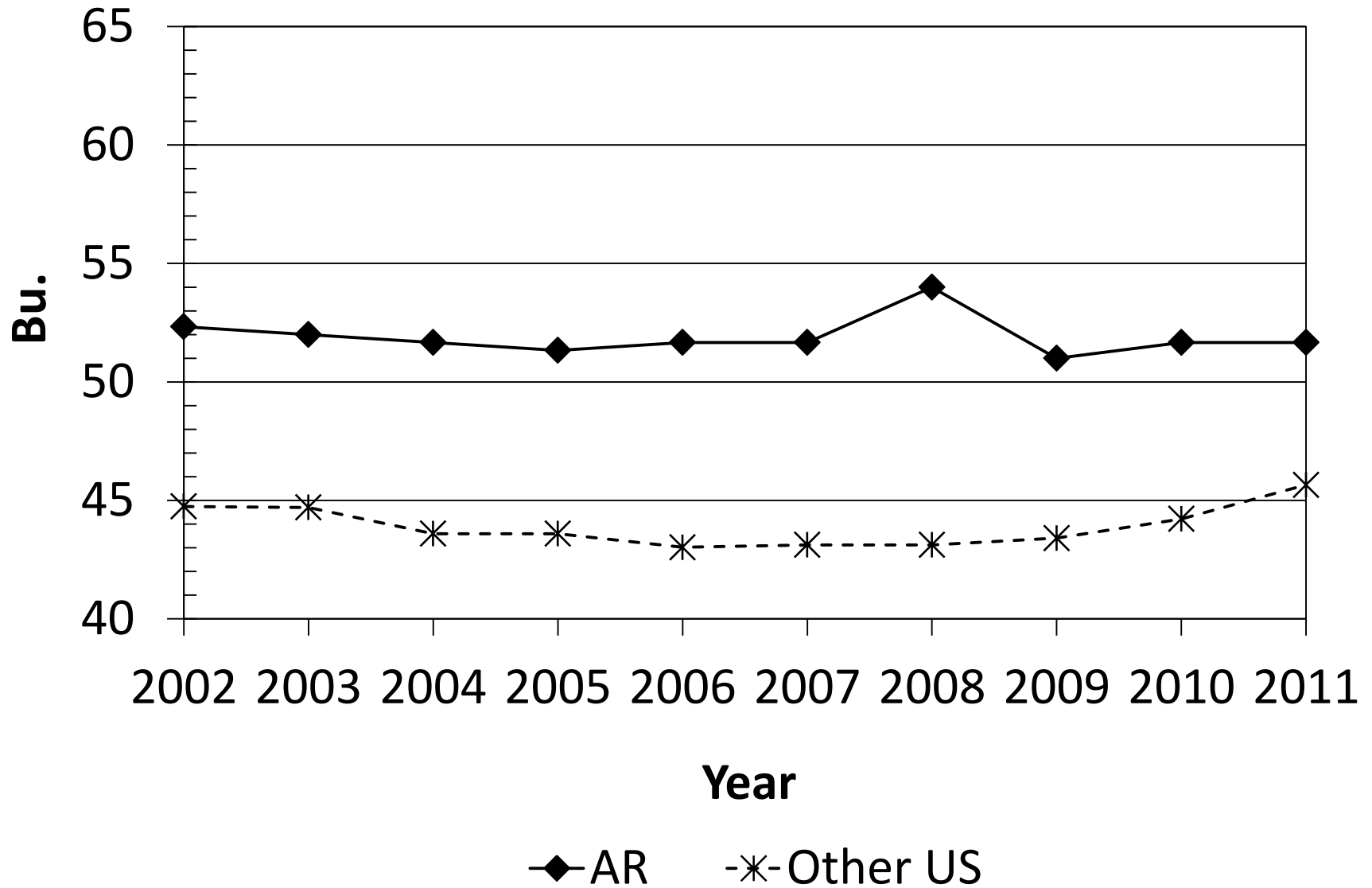
# Corn Olympic Average Yields



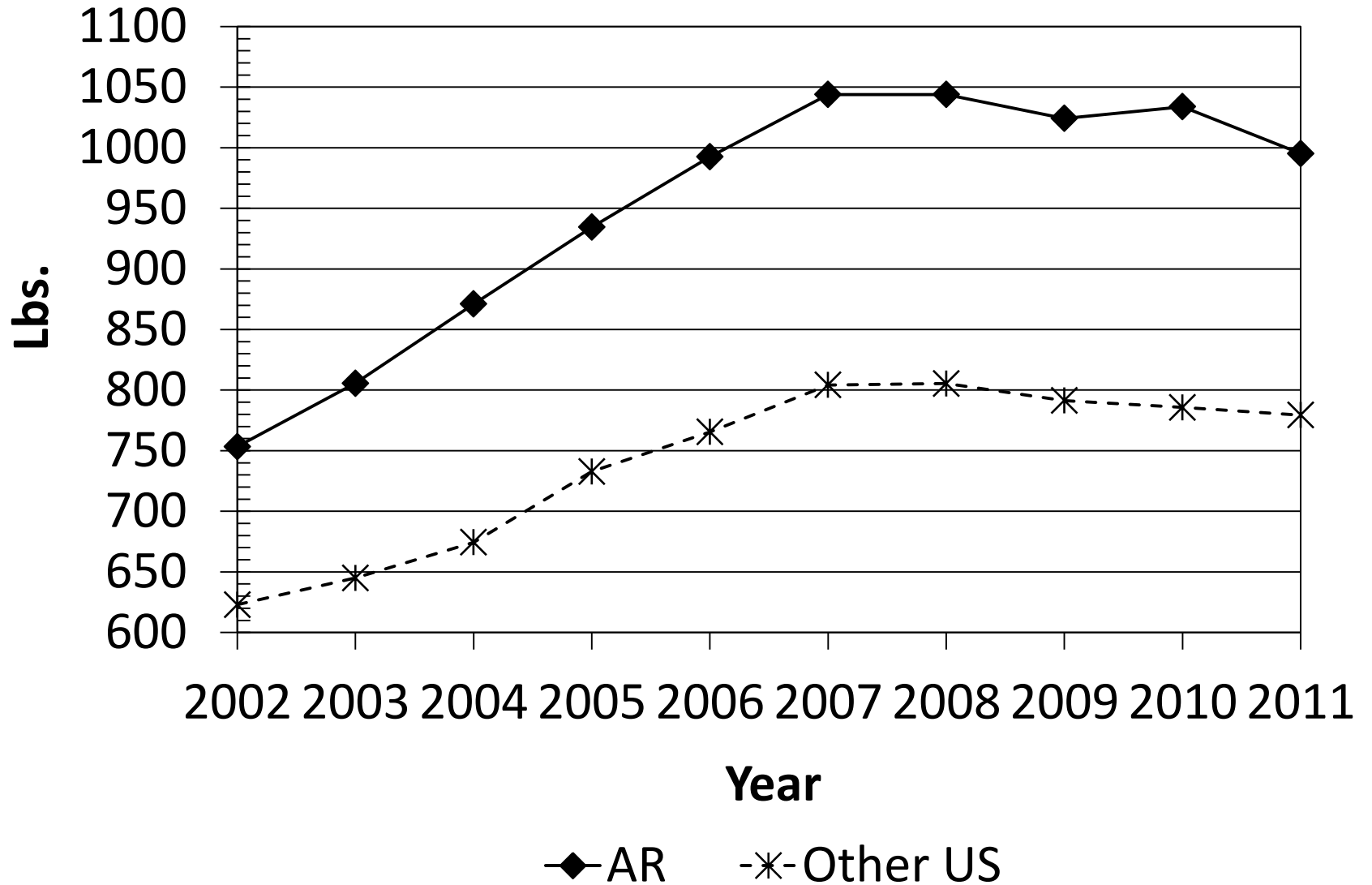
# Soybean Olympic Average Yields



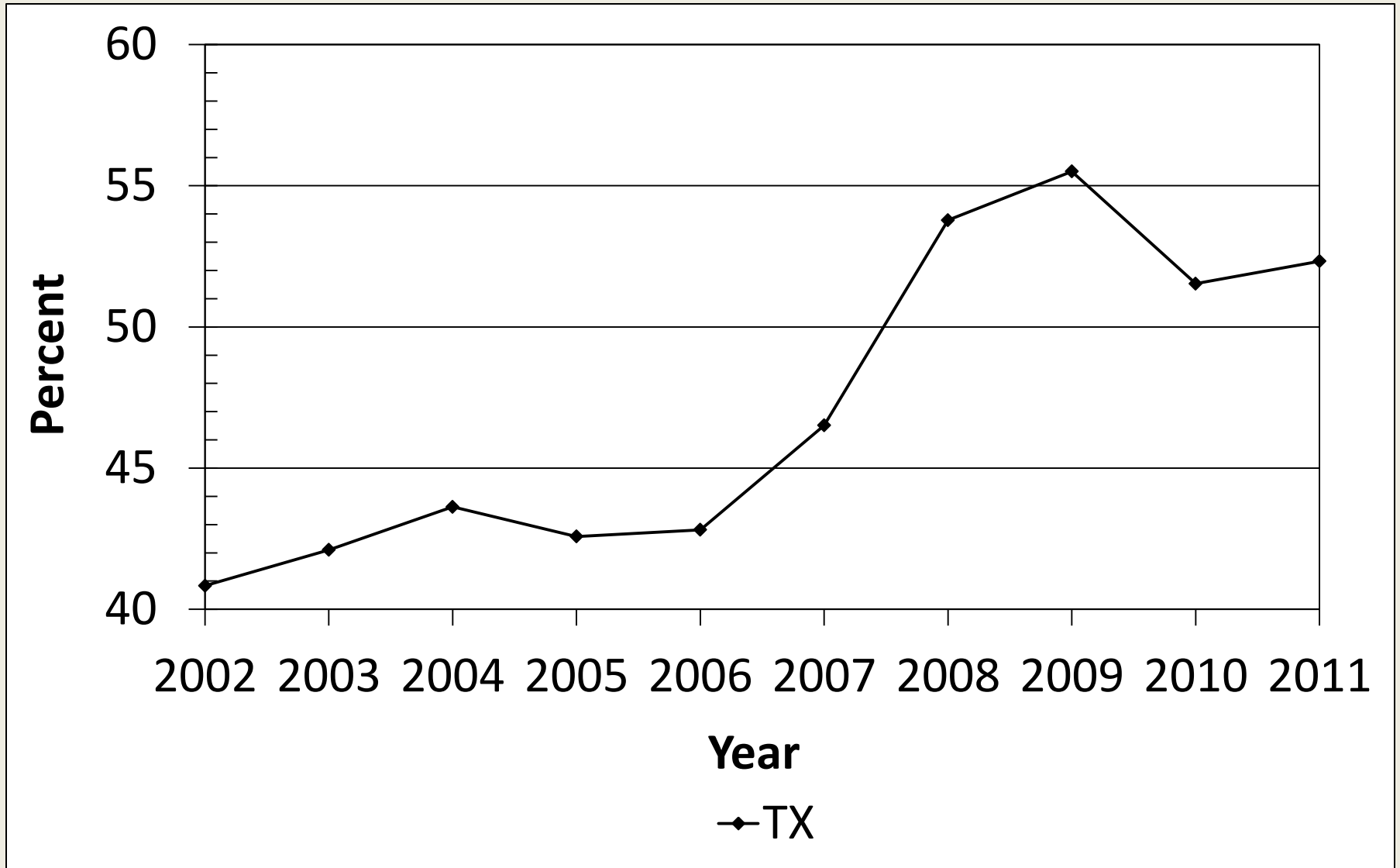
# Winter Wheat Olympic Average Yields



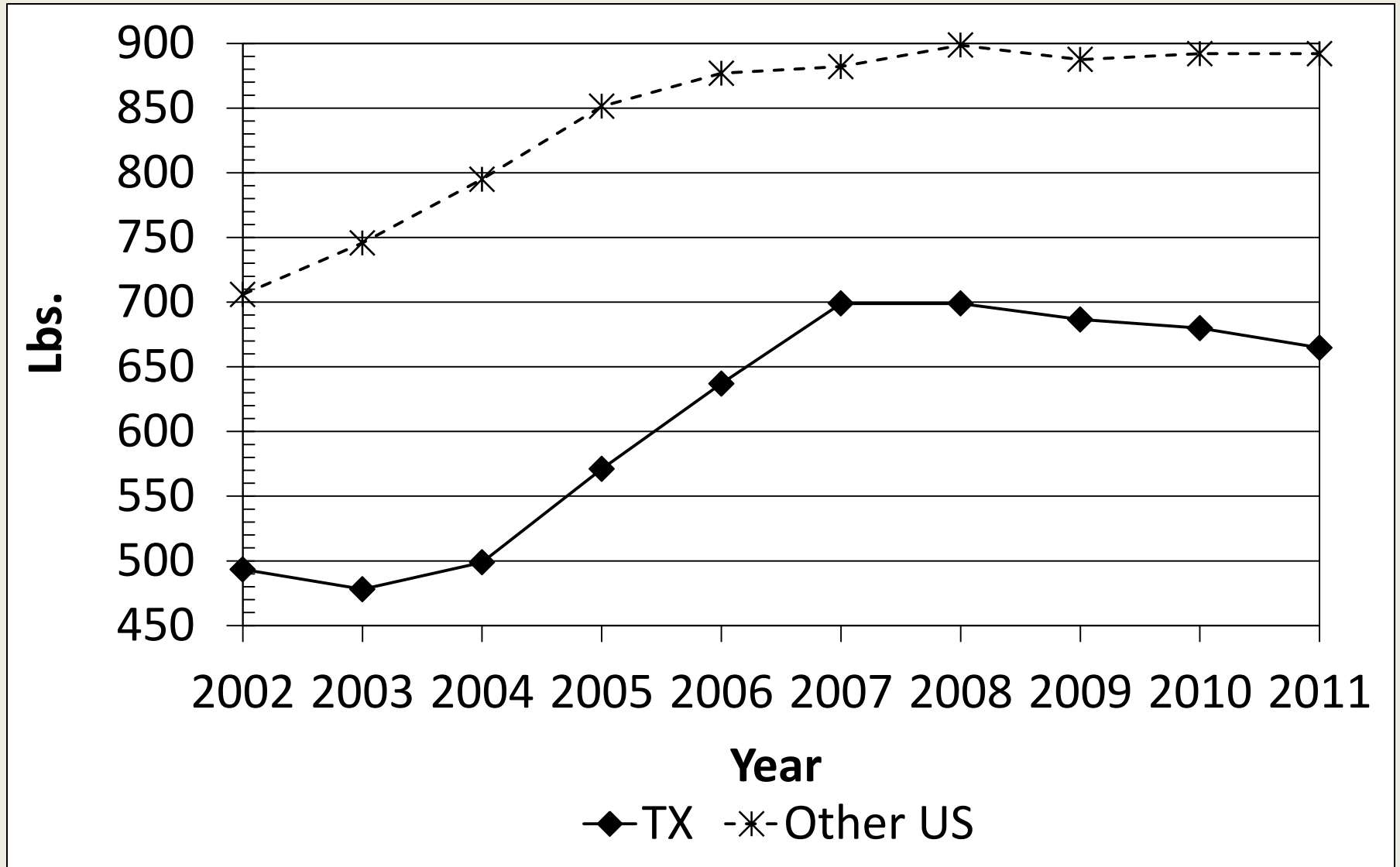
# Cotton Olympic Average Yields



# TX Percent of US Planted Cotton Acreage



# Cotton Olympic Average Yields, TX & US



# Flat and/or Decreasing Crop Yields

- Common characteristic among corn, soybeans, wheat, and cotton
- Private - consolidation of seed companies
- Private - concentration on biotechnology over yields to achieve greatest **global** profits
- Public - decrease in funding for seed development



# Questions and Comments