Farmer Responses to Higher Corn and Soybean Costs

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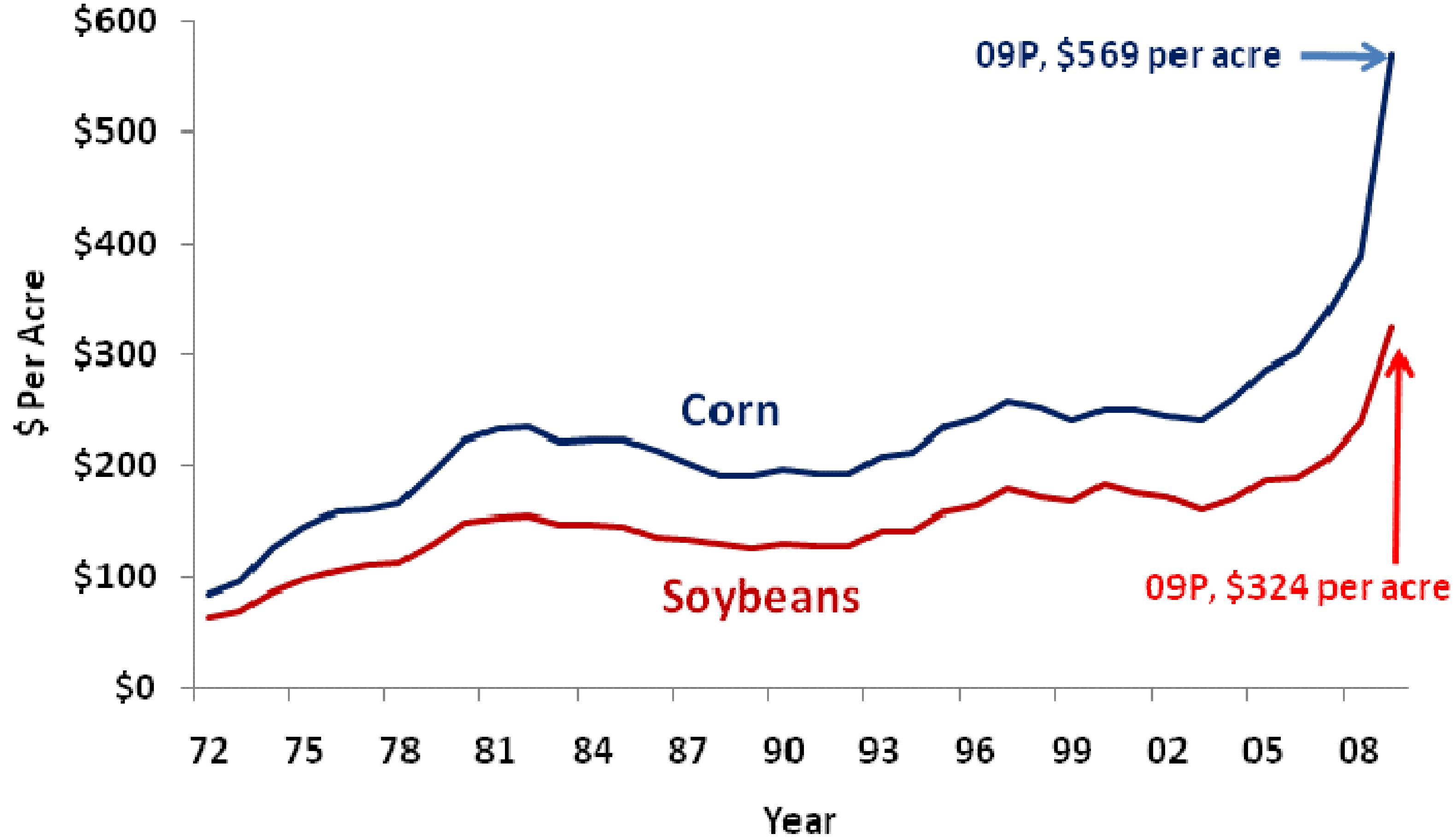
Outline

- Corn and soybean cost increases
  Key division: non-land costs versus
  land costs (cash rents)
- Responses to crop cost increases
- Livestock costs and responses

Corn and Soybean Non-Land Costs, Central Illinois, High Productivity Farmland, 1972 – 2009P

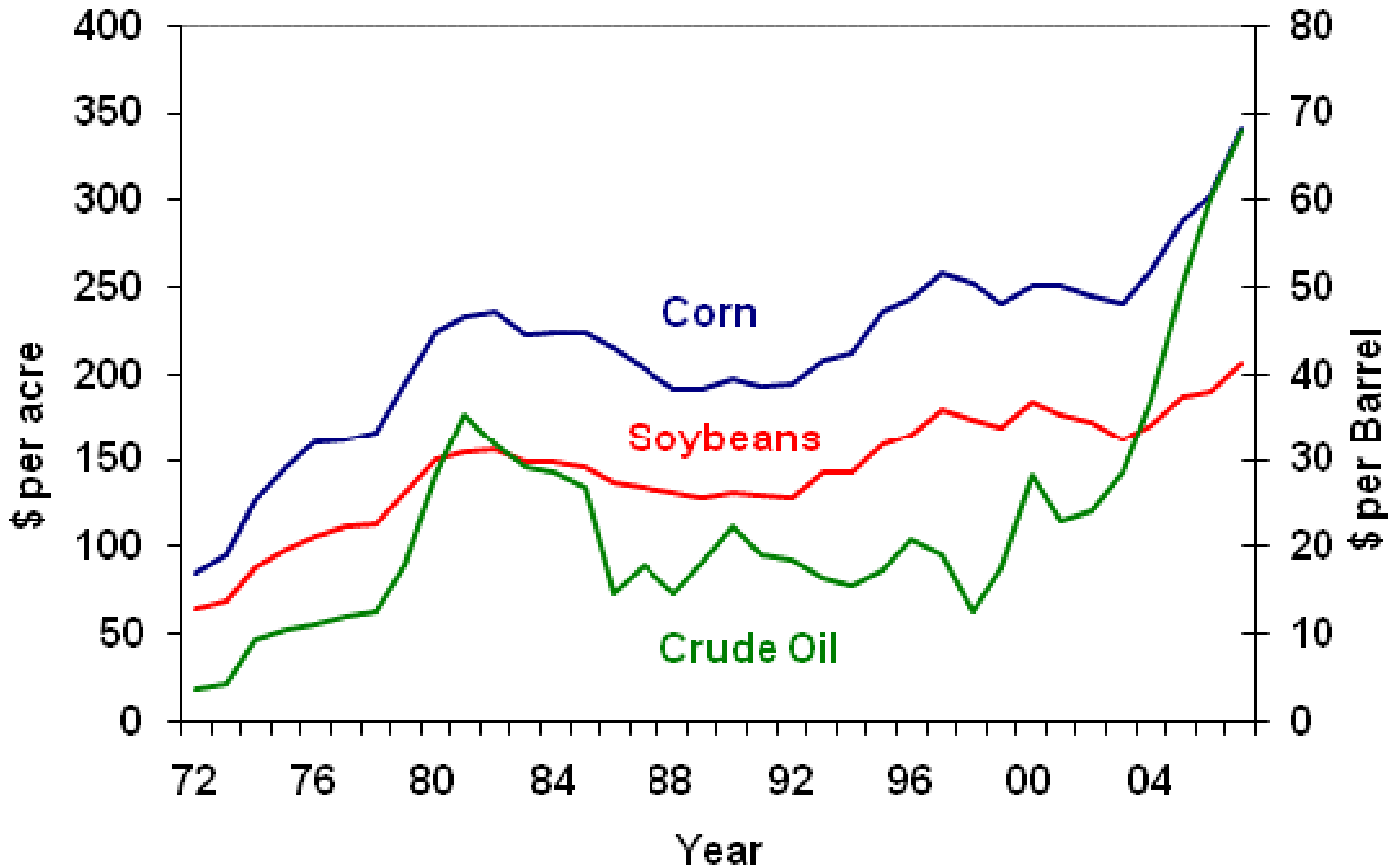


Per Acre Change in Costs, 2008 to 2009P

Item	Corn	Soybeans
Fertilizer	$97	$53
Seed	48	13
Power *	12	9
Crop insurance	7	4
Interest	4	3
Other	13	4
Total	$181	$85

* Includes machinery repairs, depreciation, hire, and fuel.

Non-Land Costs and Crude Oil Prices



Factors Impacting Crop Costs

Correlation Coefficients, 1972 - 2006		
Per Acre Costs	Crude Oil	CPI
Corn	.82	.84
Soybeans	.75	.85

Factors impacting costs include energy prices, world demands for foods, weak U.S. dollar

Significant probability that costs could come down, introduces risks when purchasing inputs

Not sure that would increase crop farm returns as decline in the above factors also likely to put downward pressure on grain prices

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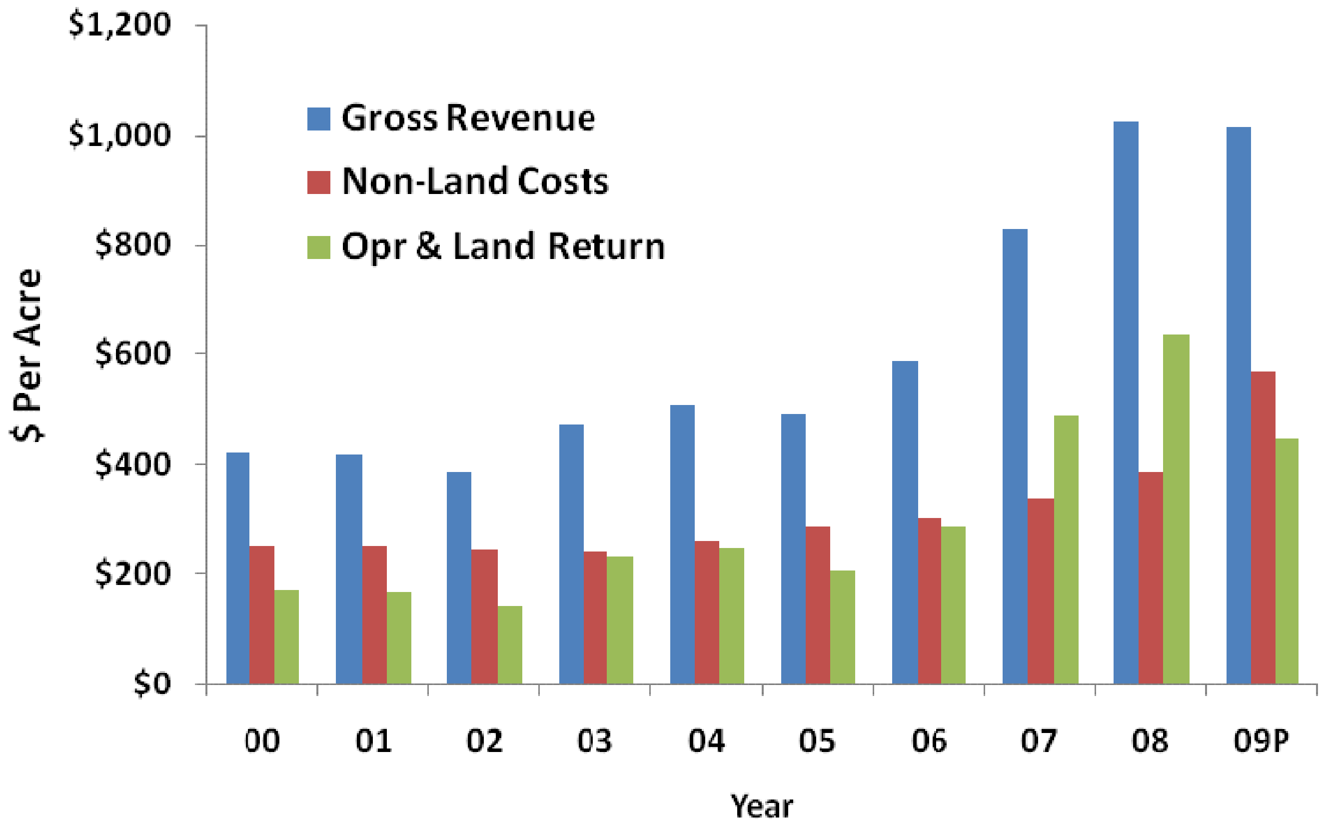
Revenue, Non-Land Costs and Returns, Corn, Central Illinois, High Productivity Farmland



Operator & land return = gross revenue – non-land costs, represents return remaining to pay for land and provide the farmer a return

Returns and Rents, Corn, Central Illinois, High Productivity Farmland

Year	Operator & Land Return	Cash Rent	Farmer Return
2000	$173	$132	$41
2001	169	137	32
2002	143	137	6
2003	232	140	92
2004	248	143	105
2005	206	147	59
2006	285	150	135
2007	488	166	322
2008P	636	188	448
2009P	448	210	238

Farmer return averaged about $55 per acre from 2000 to 2005.

Central question: What will be the new “farmer” return bid into the market?

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Besides Costs and Prices, Risks Have Also Increased

Risk Increases

- Between 1995 and 2005, farmer return averaged $55 per acre ($40 if 1995 to 2000 is included)
- For the same risk level, farmer return has to average $120 per acre post 2006

Reasons for Increases

- More volatile commodity prices and costs
- Less protection from Federal commodity price programs
- Larger losses before crop insurance makes payments

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Farmer Responses

1. Rental decisions
2. Crop decisions: Corn versus soybeans
3. Earlier purchases of inputs, particularly fertilizer
4. More borrowing
5. Other implications (new risks)

Rental Decisions

- Importance of rental decisions to “commercial” grain farms
  - 50% of farmland in U.S. is rented
  - About 70% in Illinois is rented
  - 84% of farmland by Illinois FBFM pure grain farms is rented

Percent Rented by Farm Size, Illinois FBFM Grain Farms	
Acre Range	% rented
100 – 499	53%
500 – 799	73%
800 – 1,199	80%
1,200 – 1,999	81%
2,000 – 2,999	89%
Over 3,000	85%

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Rental Decisions

- Higher returns cause higher rents and higher land values (capitalization)
- Reach a point where farmer return recognizes capital, risk, and management contributions of farmers
- Question: Will the market recognize a need for a higher farmer return post 2006?

Rental Decisions

- Some circumstantial evidence, farmer margins may be larger post 2006
- But, will see continued increases on high productivity farmland (Illinois Society of Professional Farm Managers and Rural Appraisers indicate rents will increase by $43 per acre in 2009)
- Cost increases would suggest rent declines on lower productivity farmland. Post 2006 environment suggests much larger range in cash rents for different qualities of farmland

Rental Decisions

- Other changes:
  - Shorter lease terms – many more leases of one year term
  - Some increase in variable cash rents. Farm Service Agency interpretation of cash leases (and attendant switches in commodity program payments) is a major hindrance to movement to variable cash lease.

- In future years, many will have to reduce rental payments when projected returns decline

Crop Decisions: Corn Versus Soybeans

		Corn Minus Soybean Returns		
	Ratio	2007	2008P	2009P
		$ per acre		
Northern	3.52	$90	$202	$111
Central - High	3.42	95	217	149
Central - Low	3.35	77	257	75
Southern	3.74	79	108	16

Corn returns still exceed soybeans by a large margin, but will farmers go to lower "cost" crops.

Other Responses

- Earlier purchases: Many farmers have purchased fertilizer for 2009, had to pay for a portion or all of the input price

- More borrowing: More than a doubling of operating requirements

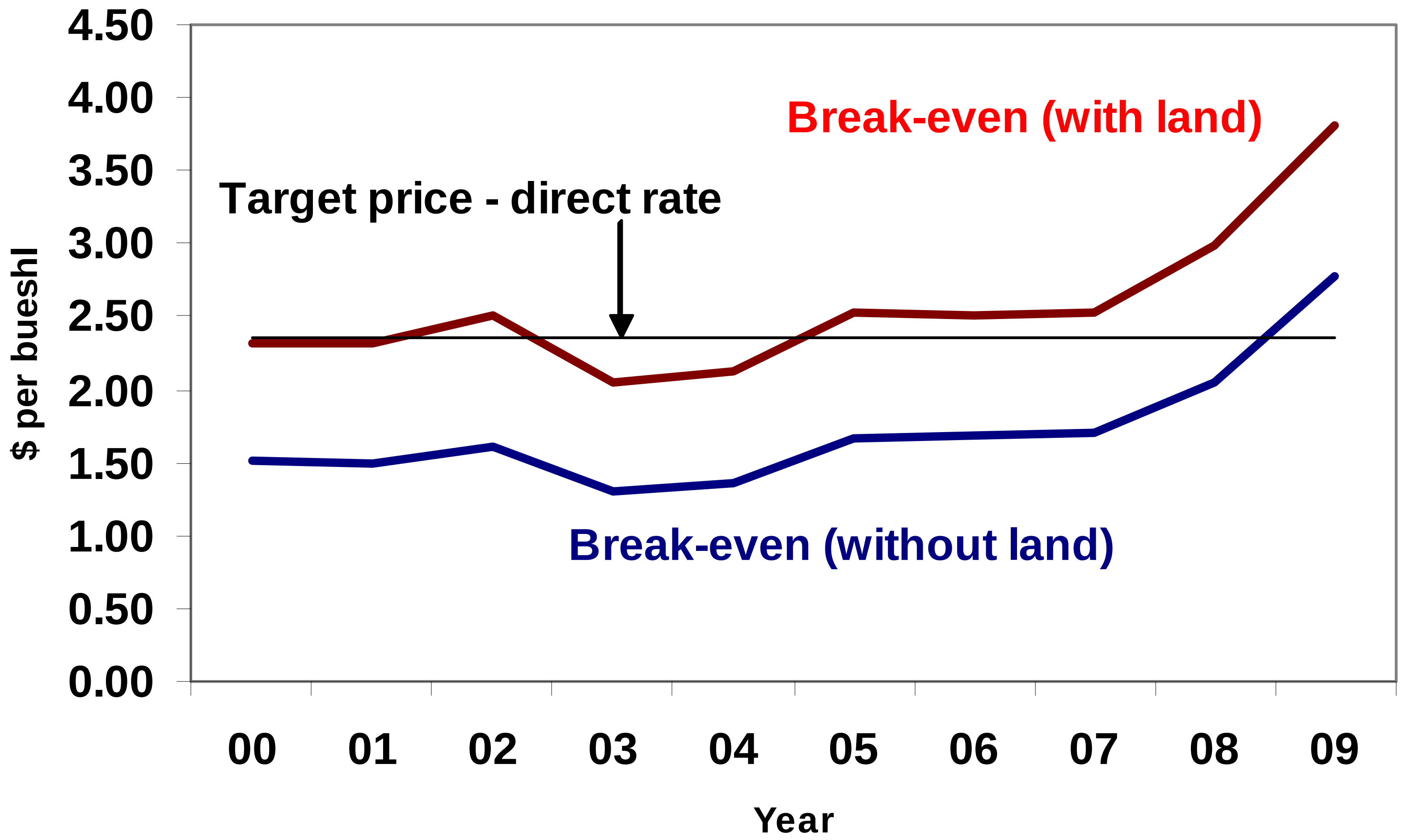
Other Implications

- Counterparty and “chain” risk has increased
  - Risk of a party not performing (default) on their contracts is higher
  - Disruptions of supply or processing chain will be the cause of the next financial crisis.

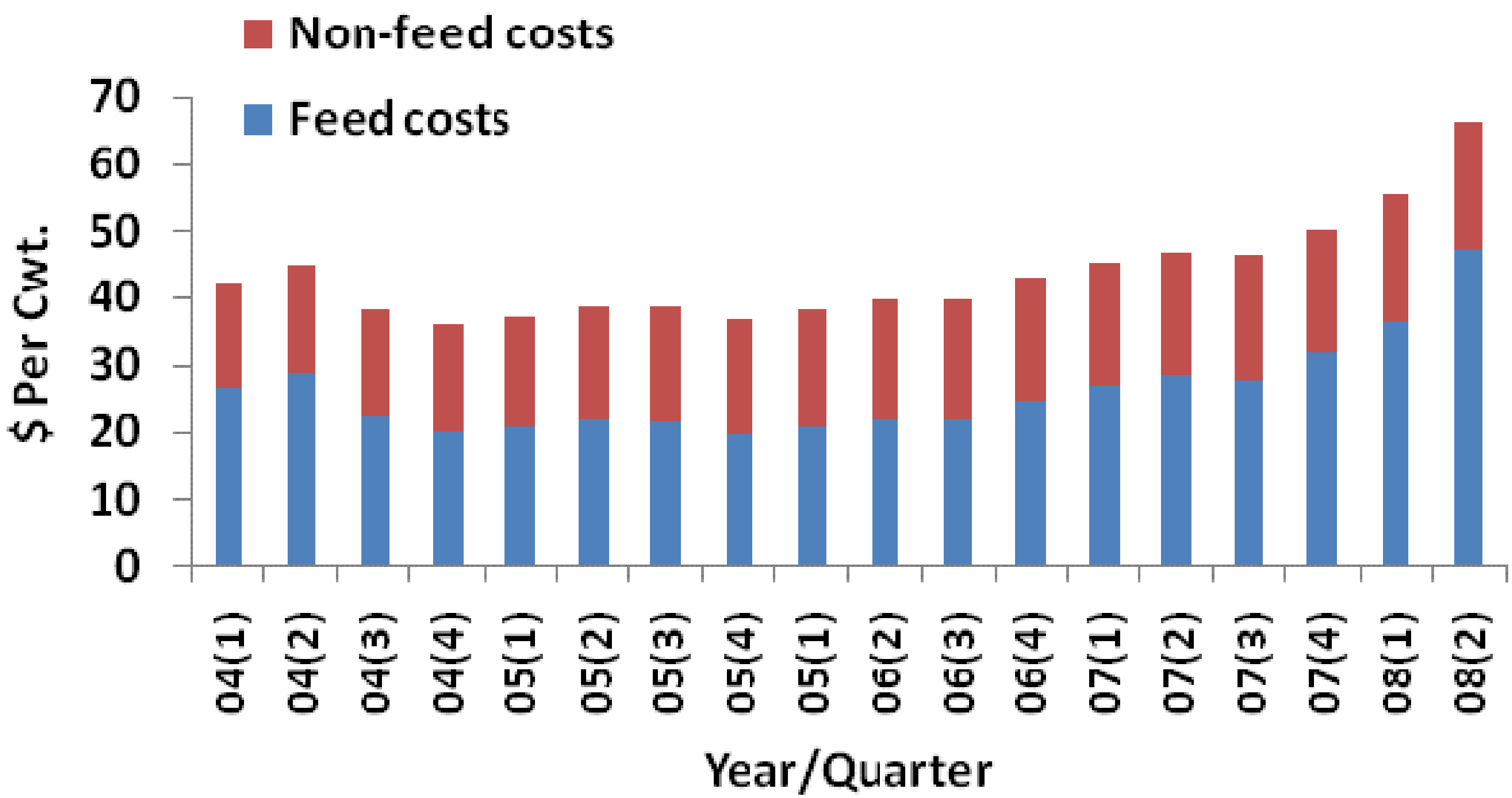
- Much higher break-even prices
  - Commodity prices will not decrease to old levels
  - Prices will still be higher even if ethanol credits are reduced

Break-even Corn Prices to Cover Costs

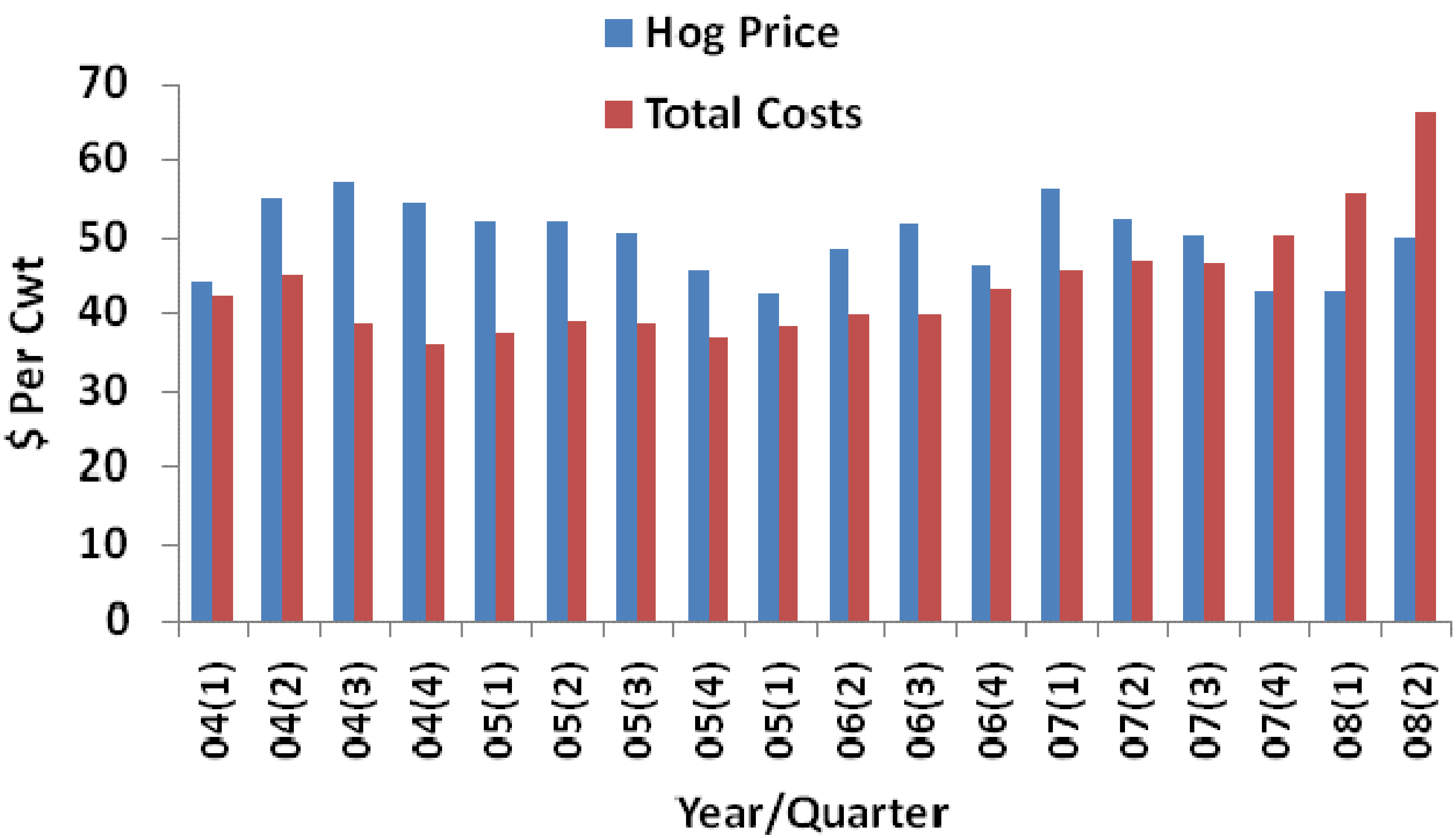
(Central Illinois, High Productivity Farmland)



Quarterly Hog Production Costs, Illinois, 2004 to 2008(2)



Quarterly Hog Prices and Costs, Illinois, 2004 to 2008(2)



Livestock

- What will the adjustment process look like moving to higher production costs?
  - Higher cost means an adjustment to higher prices but lower quantity
  - How do you get to lower quantity? Will it be with financial pain?

- Who is currently bearing the losses depend on contractual arrangements

Summary

- Costs have increased dramatically, little chance that there will be reductions in the next year or two, but chance of declines in the future
- Risks, as well as costs and prices, have increased
- New environment due to scarcity of basic resources (energy and fertilizers)
- What is going to be the public policy response to energy?
- Adjustments
  - Cash rents (and farmland prices) on grain farms
  - Supply and prices on livestock farms