

Higher Land Values and Rents

Wabaunsee County Ranch & Range Tour, October 5, 2007



Kevin C. Dhuyvetter and Terry L. Kastens
Department of Agricultural Economics
Kansas State University

kcd@ksu.edu --- 785-532-3527 | tkastens@ksu.edu --- 785-626-9000



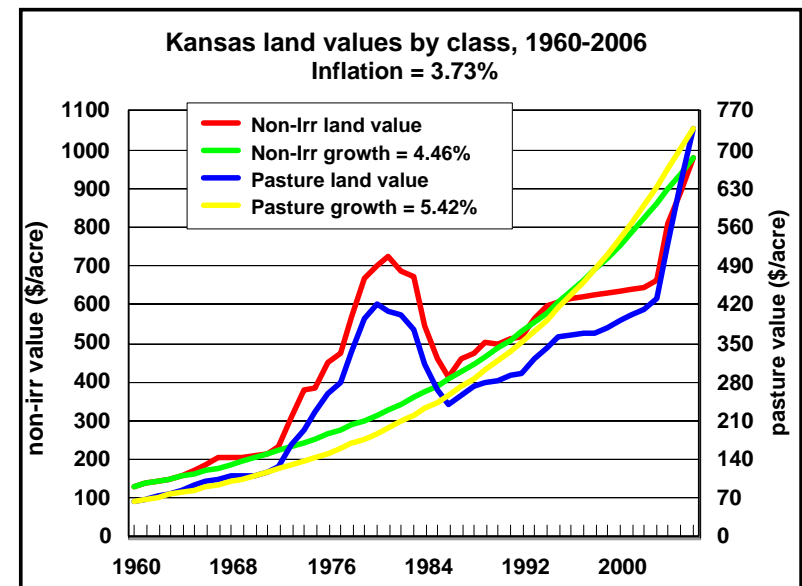
Factors/issues impacting land values

(alphabetical order)

- Farm profitability
- Farm size
- Government programs
- Input costs (e.g., fuel and fertilizer)
- Interest rates
- Outside investors (i.e., stock market money)
- Recreation uses (e.g., hunting)
- Renewable fuels (ethanol and bio-diesel)
- Section 1031 tax exchanges
- Technology (e.g., no-till, precision ag, bio-tech, DNA)
- Urban sprawl
- Weather (i.e., drought, flood)

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Historical land values and growth rates

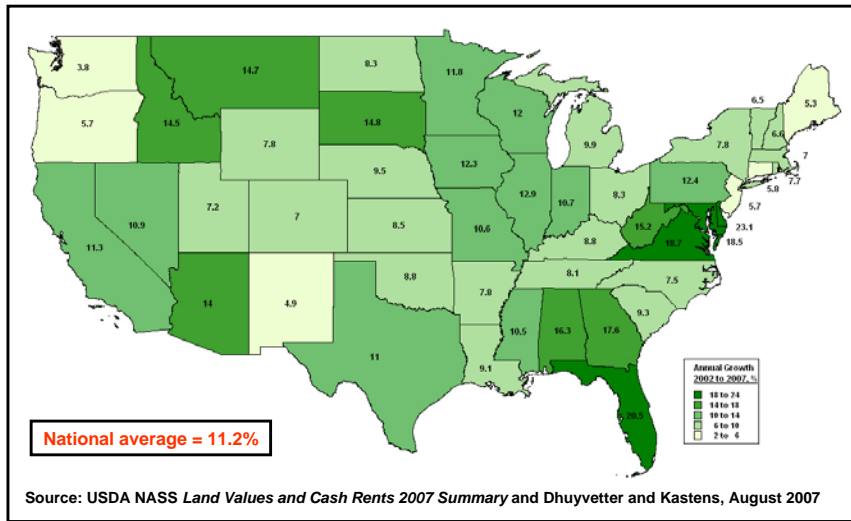


Growth rate in ag land (including buildings) from 1880 to 2006 = 3.97%

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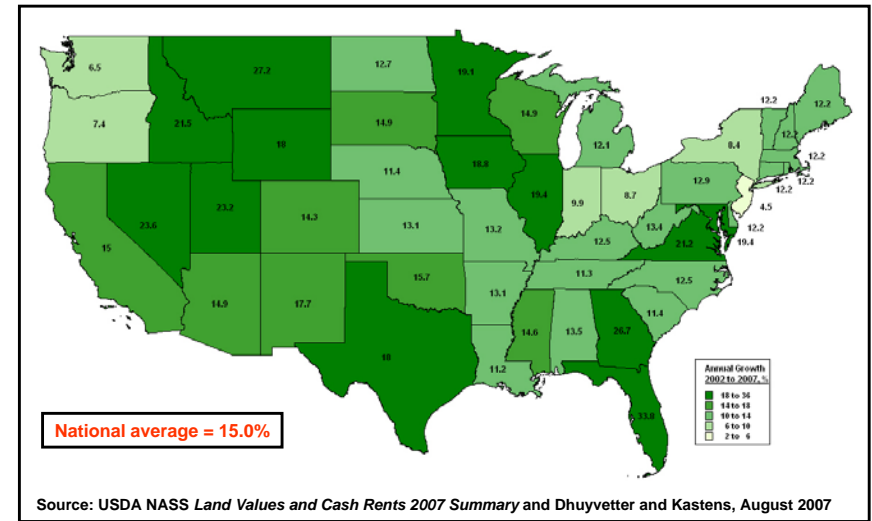
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Crop Land Average Annual Growth Rate Jan 1, 2002 to Jan 1, 2007, percent (geo mean)



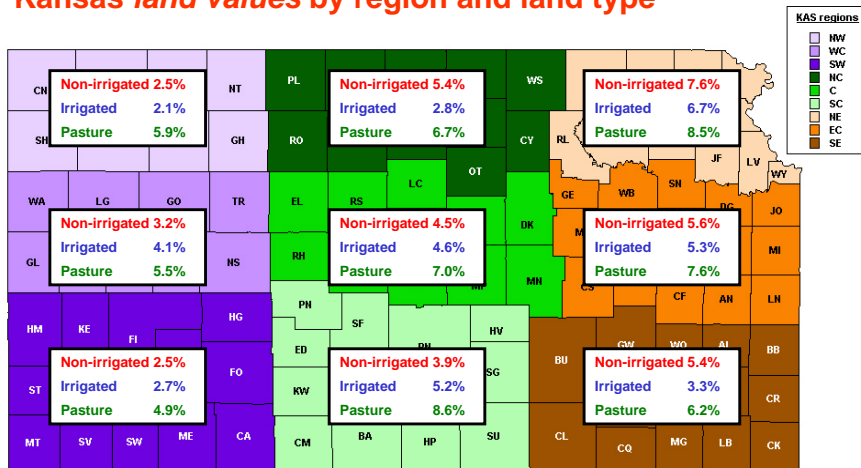
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Pasture Land Average Annual Growth Rate Jan 1, 2002 to Jan 1, 2007, percent (geo mean)



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10-year (1997-2007) average annual growth rate in Kansas land values by region and land type

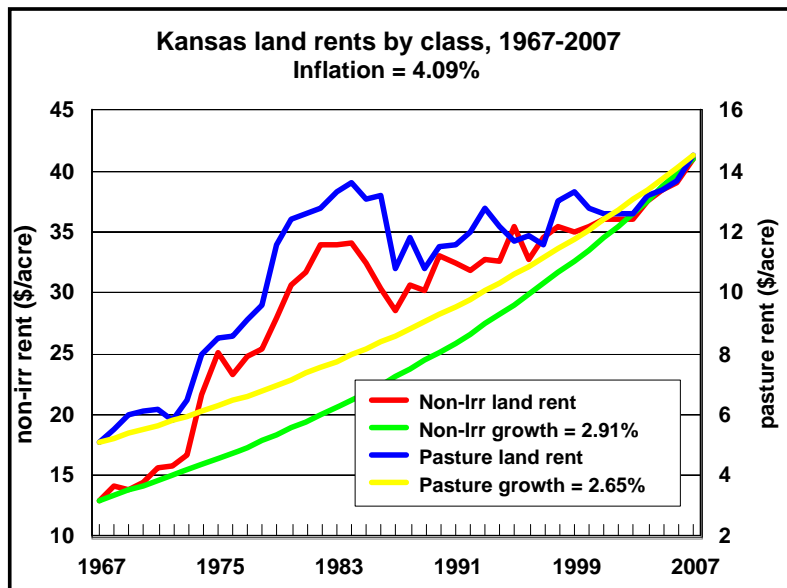


State averages: Non-irrigated = 4.8%, Irrigated = 3.6%, and Pasture = 7.3%
Both a regional and land type effect on growth rates over the last ten years.
What's driving these differences?

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Historical land rents and growth rates

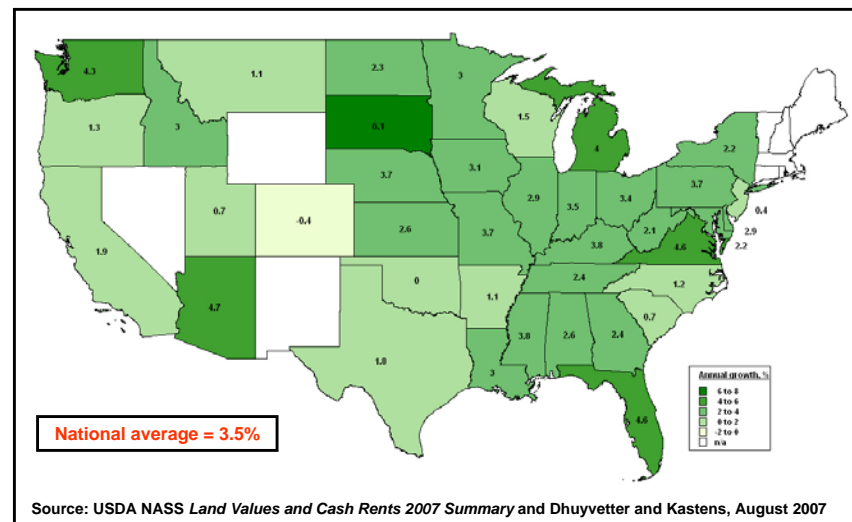
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Cropland Rent Average Annual Growth Rate

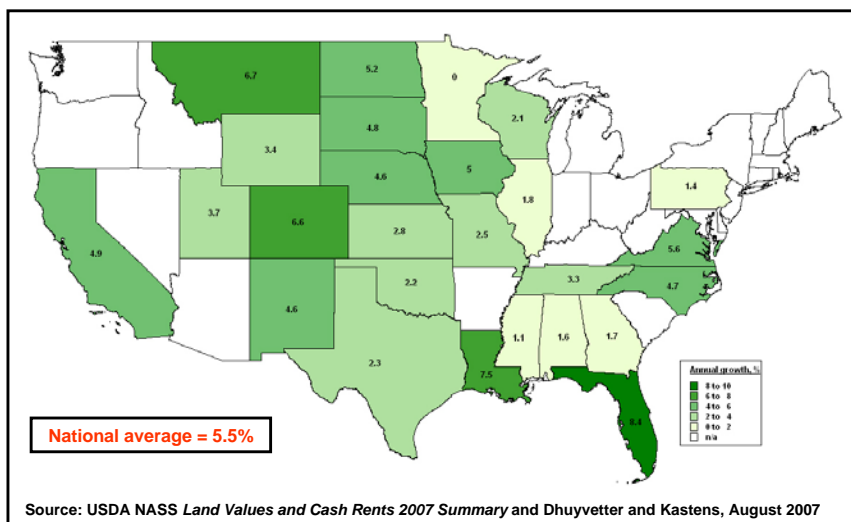
Jan 1, 2002 to Jan 1, 2007, percent (geo mean)



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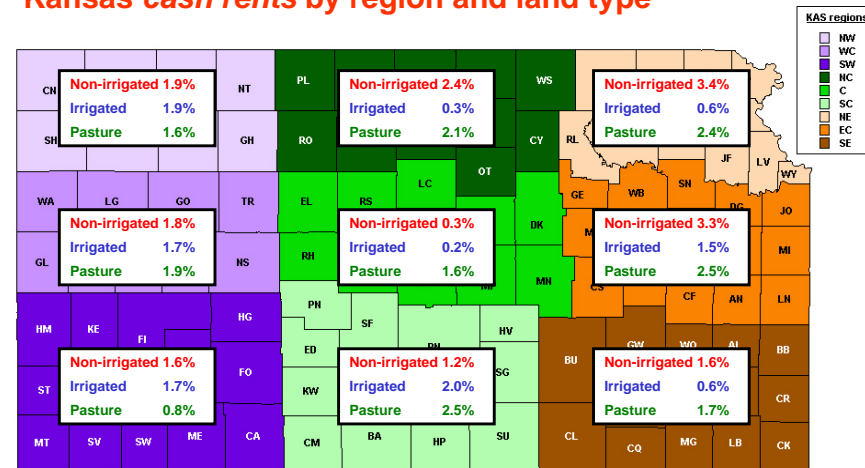
Pasture Rent Average Annual Growth Rate

Jan 1, 2002 to Jan 1, 2007, percent (geo mean)



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10-year (1997-2007) average annual growth rate in Kansas cash rents by region and land type



State averages: Non-irrigated = 1.7%, Irrigated = 0.6%, and Pasture = 2.3%

Both a regional and land type effect on growth rates over the last ten years.

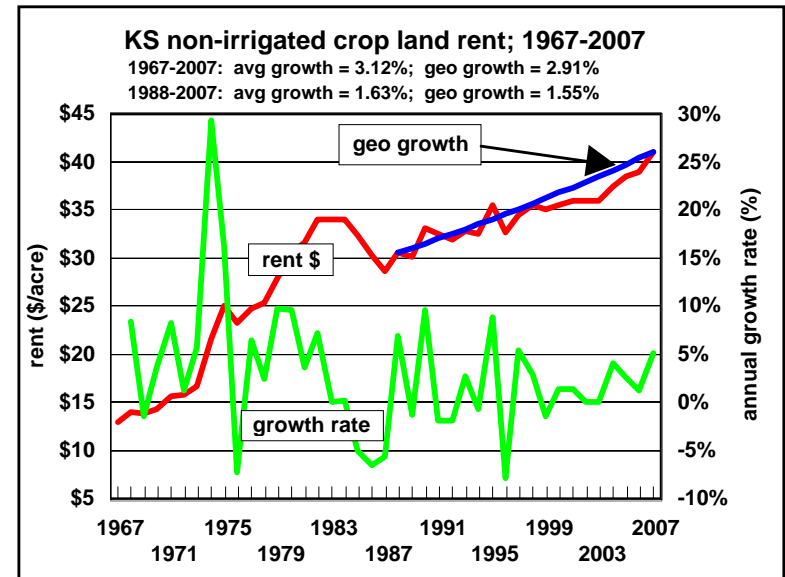
What's driving these differences?

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Growth rates in land values and rents

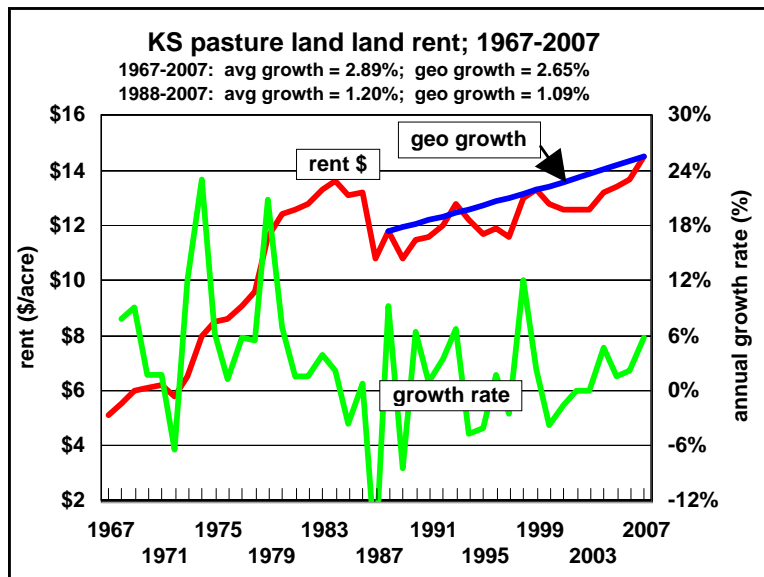
- Land values and rents are highly correlated (i.e., they generally move in the same direction)
- In recent years, growth rate on land values is outpacing growth rate on land ag rents. What are the implications of this?
 - Cash flow for “typical” loans will be tighter
 - Traditional rules of thumb have less meaning
 - Increased need to think about capturing non-ag rents
- Given the current environment, will growth in rents “catch up” to land value growth rates?

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Suggested expected ag growth rate = 2.75% (but if ethanol continues . . . ?)

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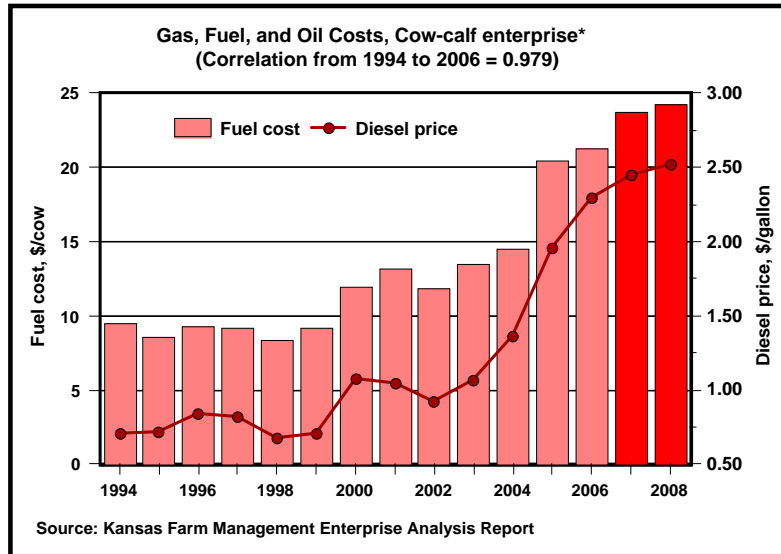
Suggested expected ag growth rate = 2.50% (but if ethanol continues . . . ?)

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Impacts of high energy prices and increased ethanol production

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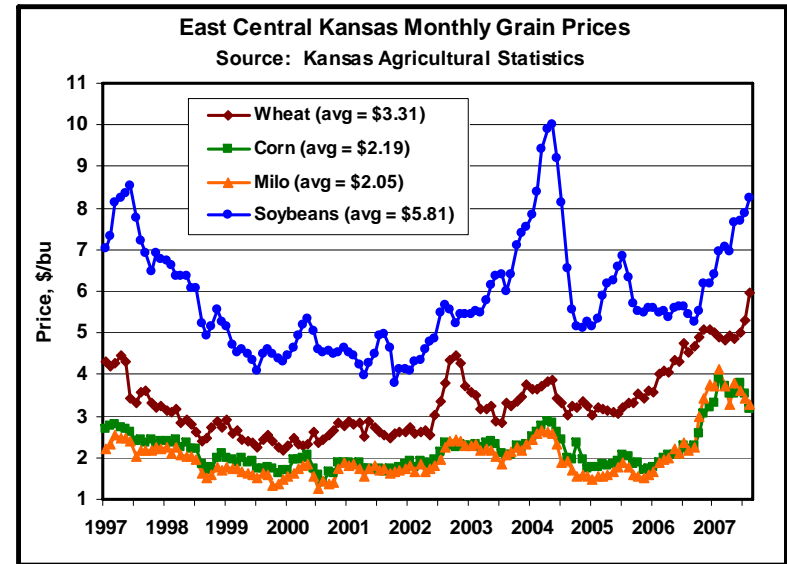
High fuel prices increase cow-calf costs...



Forecasts are based on 10/01/07 futures prices for crude oil

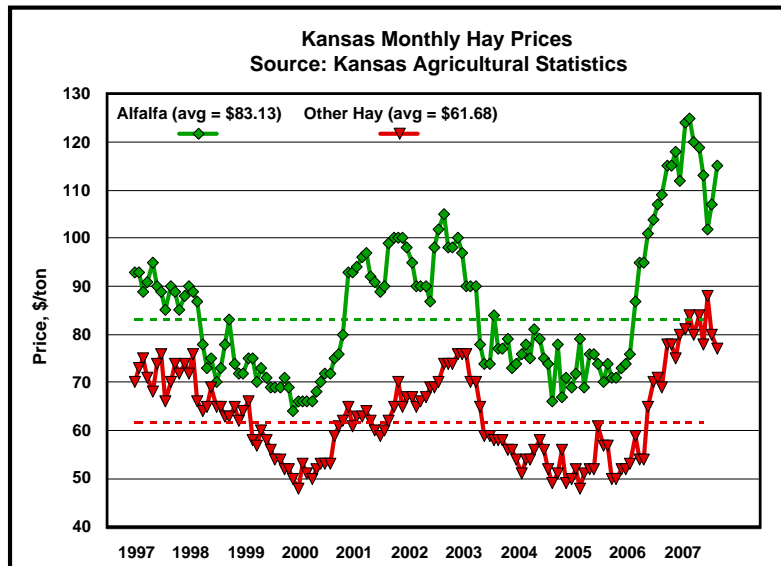
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It's not just corn prices impacted by ethanol...



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Strength in crop markets impacts hay prices...

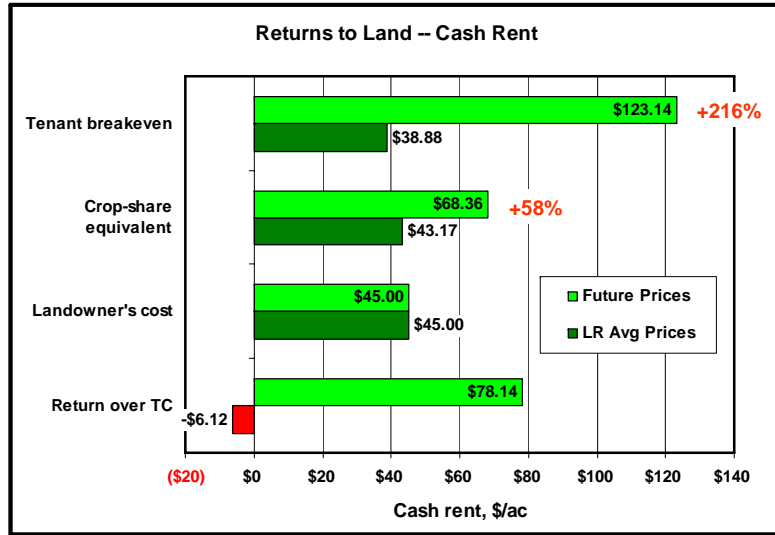


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Impact of high fuel and grain prices on crop and livestock operation costs...

- **Inelastic demand for fuel**
 - Little can be done to manage higher fuel costs
 - Lower costs in other areas, such as land rent?
- **High grain prices**
 - Increase cost of gain → look for ways to lower costs of production
 - Increases demand for alternative feedstuffs (i.e., pasture)
 - Increases demand for farm ground
- **Which market force will be strongest?**

Estimated cash rents for North Central Kansas
(alternative price scenarios)



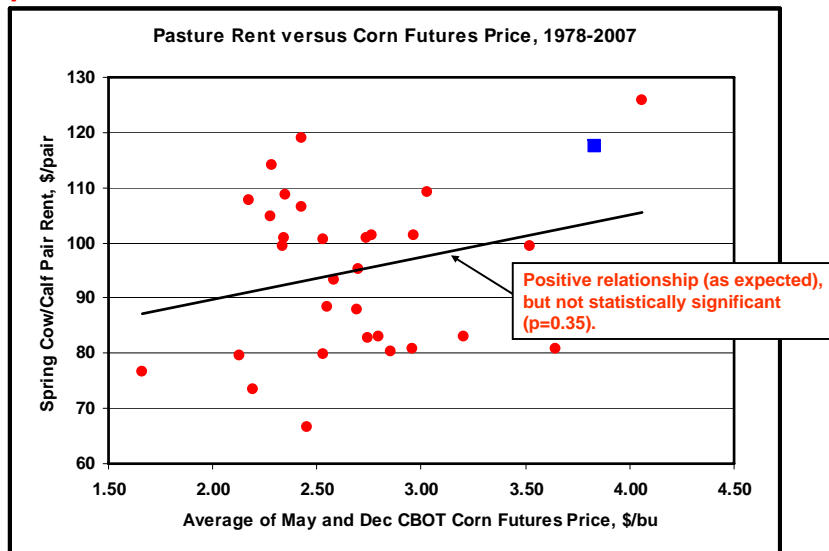
Based on KSU Farm Management Guides (October 2006) and KSU-Lease.xls (available at www.agmanager.info)

Relationship between yields and crop prices and rents and land values (1950-2006)

	Rent (% change)	Value (% change)
Yield (1% change)	0.70	0.77
Price (1% change)	0.71	0.99

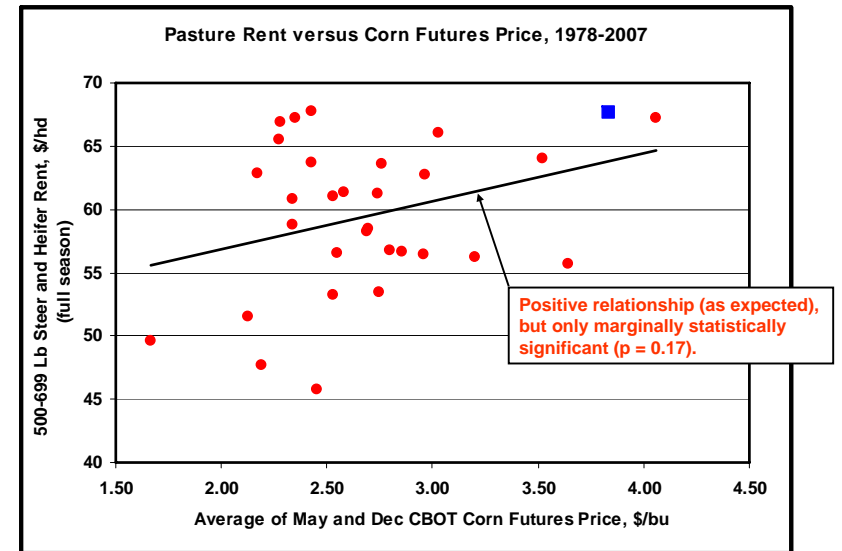
Based on futures prices (10/3/07), expected increases in prices, relative to long-term (82-06) average, are: corn 60%, soybeans 59%, and wheat 75%

What is the relationship between corn price and pasture rent?



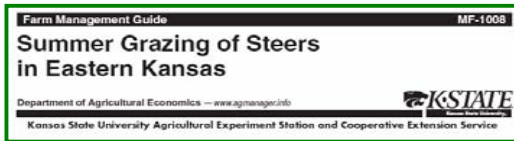
Source: Kansas Ag Statistics *Bluestem Pasture Report* and Dhuyvetter, August 2007

What is the relationship between corn price and pasture rent?



Source: Kansas Ag Statistics *Bluestem Pasture Report* and Dhuyvetter, August 2007

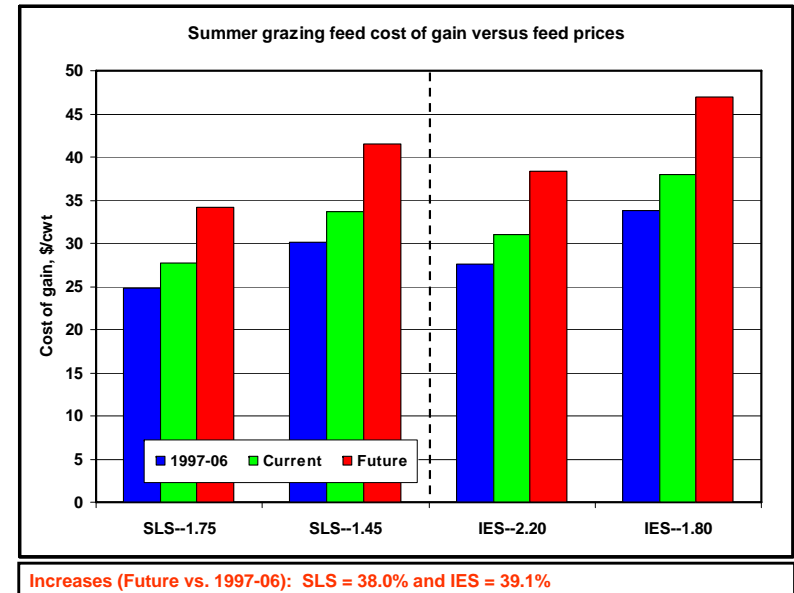
Beef budgets used to estimate feed costs...



Budgets were simply used to calculate feed cost of gain and how it is impacted under various price scenarios to examine relative changes...

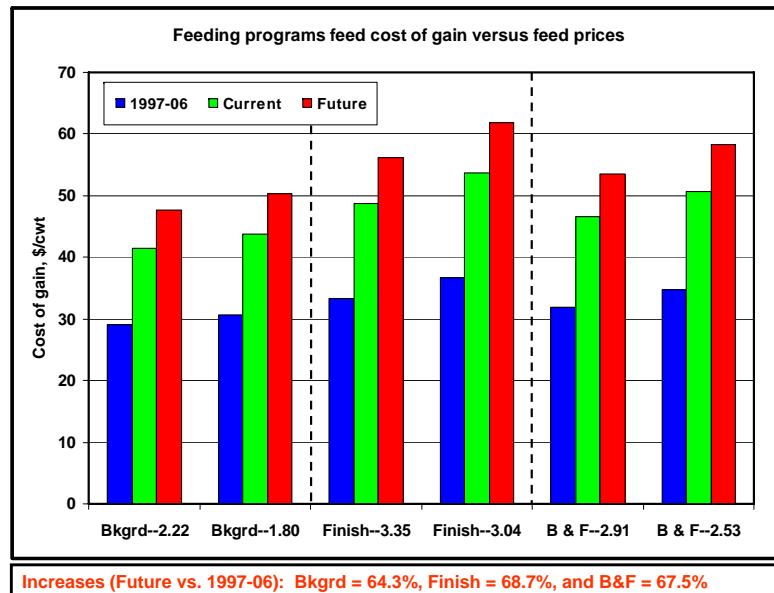
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Summer grazing enterprises...



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Feeding enterprises...



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What does all this mean?

- Feed COG in feeding programs increase 60-70% relative to historical time period
- This compares to ~35-50% for grazing programs (based on my assumption of a +25% increase in pasture rent)
- What do you do about this?
 - Pay less for cattle
 - Find ways of putting on gain at lower cost
 - Leave cattle on grass longer
 - Background to heavier weights
 - Find alternative feedstuffs

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Find ways of putting on gain at lower cost...

- How high might grazing rates (summer grass and wheat programs) increase?
- Calculated pasture rates such that future feed cog relationships between feeding and grazing programs are similar to historical relationships
- Compared wheat and summer grass programs to drylot backgrounding programs
- Across all programs, increasing 2007 pasture rates 47.8% results in cog for grazing programs, relative to drylot backgrounding, that are proportional to what they were with 1997-2006 prices

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Summary...

- In recent years much of the strength in the land market has been “non-ag” related, but that is likely going to change in the coming years
- Ethanol production → high price for corn ripples through to other crops (including hay)
- Historically, little relationship between corn price and pasture rents. Things likely will be different this time around...
- Pasture land values have been increasing rapidly in recent years, but rents have not increased at same rate. Things could be different going forward...

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The screenshot shows the AgManager website interface. The header includes the site name and navigation links. The main content area features a central graphic with the website URL, a sidebar with a navigation menu, and a 'Site Updates' section listing recent articles. At the bottom, there are two call-to-action boxes: one for 'Questions?' and another for contact information.

Questions?

Kevin Dhuyvetter
785-532-3527
kcd@ksu.edu