Required Readings:


**Commodity Prices**

Commodity prices are important both _________ and _________ in almost all countries

Strongly influence level of _____ income

Important factor in export _____ of numerous countries

Influence ________ income in many countries

**Uniqueness of Agricultural Commodities**

Range of market structure

- Markets with _____________ institutions, sometimes assisted by government regulations

- Markets that are reasonable approximations of textbook ________ pricing

Wide range of government intervention

Agricultural commodity prices are more ________ than the prices of most other ________ goods and services
Monthly Farm Price of Corn in Illinois, January 1947- November 2009*

*November: mid-month

Monthly Farm Price of Soybeans in Illinois, January 1947- November 2009*

*November: mid-month

Source: NASS/USDA
Monthly Farm Price of Wheat in Illinois, January 1947 - November 2009*  

Source: NASS/USDA  

*November: mid-month  

Monthly Farm Price of Hogs in Illinois, January 1947 - November 2009*  

Source: NASS/USDA  

*November: mid-month
Monthly Farm Price of Steers and Heifers in Illinois, January 1960 - November 2009*

Source: NASS/USDA  *November: mid-month

Monthly Farm Price of Milk in Illinois, January 1960 - November 2009*

Source: NASS/USDA  *November: mid-month
Why are Agricultural Commodity Prices So Volatile?

1. _________ nature of production

   • Significant _______ between decision to produce and realization of production

   • Time required to _______ production

       Grain – one year

       Hogs – one year

       Cattle – three years

       Apples – five to ten years

   • _____ production can vary enormously from _______ production due to

       _________ conditions

       _________ infestations
2. Nature of __________

- _____ nature of most agricultural production assets, like land and equipment, make it difficult for farmers to _______ to expected price changes _______ (in the short-run)

- Implication is that changes in ________ in the short-run due to expected price changes will be relatively ________

- Result is that agricultural supply functions are ________

3. Nature of __________

- Agricultural commodities are raw materials for a wide-variety of ________

- Majority of ________ is for some form of food

- Consumer responses to changes in ________ are relatively small
• Result is that agricultural demand functions are ________

• Diverse sources of demand, in terms of products and geography, implies a large potential for ________ ________

*Inelastic Demand, Supply and Price Volatility*

![Graph showing inelastic demand, supply, and price volatility with labels: Price (P₀, P₁), Quantity (Q₀, Q₁), Supply (S₀, S₁), Demand curve.](image)
Degree of Storability

A key __________ among agricultural commodities is their degree of storability

Some can be stored for ______ periods of time

- Corn
- Soybeans
- Wheat
- Sunflowers
- Peanuts
- Almonds

Some products are highly __________ and can be stored only for ______ periods of time (in live form)

- Hogs
- Cattle
- Milk
- Potatoes
- Apples
- Tomatoes
Tend to group agricultural commodities into two groups

- Storable commodities
  
  Price _______

  Strongly _______ price distributions

- Non-storable commodities
  
  Price _______

  Less skewed price _________
Forecasting in Business

- Because of the large ______ of commodity prices on company earnings, many businesses spend considerable resources on ________

- Particularly true for companies that deal _____ in commodities and need to _____ risks

  ADM
  Cargill
  Caterpillar
  ConAgra
  Kraft
  Weyerhauser

- Employment opportunities for students trained in price analysis and forecasting

- Growing interest in expertise in ______________ strategies

- Farmers often subscribe to some type of __________ _________ or employ a marketing consultant to assist with price analysis and marketing
Price Analysis vs. Price Forecasting

Price analysis

- Goal is to ______ the complex array of _____ that influence the level and behavior of commodity prices
- Aids in understanding the __________ of commodity markets
- Policy analysis

Price forecasting

- Goal is to reliably and accurately _____ future price levels of commodities
- __________ strategies
- __________ strategies

In ACE 427 we will focus on price forecasting
Some Important Considerations in Forecasting

1. All meaningful forecasts guide __________

   • Recognition and awareness of the nature of the decisions will impact the ____________
     ______________ of the forecasting process

   • Especially important to understand the _________
     function of forecast users:
2. Form of forecast statement

- Simple _____ forecast: fed steer prices for the first quarter of 2009 = $90/cwt.

- ________forecast: fed steer prices for the first quarter of 2010 = $85-95/cwt.

- __________________________forecast: 80% confident that fed steer prices for the first quarter of 2010 will be $80-100/cwt.

- ________ forecast: provides entire distribution of forecast price

3. Forecast horizon

- Forecast horizon is the ________ of periods between today and the date of the forecast made

- If dealing with monthly data:

  1-step ahead = One month beyond the current month

  2-step ahead = Two months beyond the current month
h-step ahead = h months beyond the current month

- More complex situations are common in crop market forecasting

Typical unit of time is a ______________

Forecasts updated monthly:

The 2001/2002 WASDE forecasting cycle for corn and soybeans
4. Parsimony principle

- Other things equal, _____ approaches are preferred

- Also known as Occam’s Razor

- _____ approaches tend to work best in real world applications
  - Based on decades of experience and research
  - Simpler models can be estimated more _________
  - Because simpler approaches can be more easily interpreted and understood, ________ behavior and outcomes can be more easily spotted
  - It is easier to __________ the basic behavior and design of simple approaches, so they are more likely to be used by ______________

**Occam's Razor.** This maxim, as interpreted by Bertrand Russell, states that if one can explain a phenomenon without assuming this or that hypothetical entity, there is no ground for assuming it, i.e. that one should always opt for an explanation in terms of the fewest possible number of causes, factors, or variables. (Wikipedia)
Simple approaches lessen the chances that ____________ is a problem

Data mining results when a ________ model is tailored to fit historical data very ____ but forecasts the future ___________

In this case, the only thing accomplished is an exquisite job of modeling the _________ in the data

We will focus on two types of “simple” forecasting methods in ACE 427

• ___________ analysis: use of economic models and data on production, consumption, income, etc. to forecast prices

• ___________ analysis: use of past price patterns only to predict future price movements
The Great Debate!

Curiously, however, the broken technician is never apologetic about his method. If anything, he is more enthusiastic than ever. If you commit the social error of asking him why he is broke, he will tell you quite ingeniously that he made the all too human error of not believing his own charts. To my great embarrassment, I once choked conspicuously at the dinner table of a chartist friend of mine when he made such a comment. I have since made it a rule never to eat with a chartist. It’s bad for digestion.

---Burton Malkiel (author of a Random Walk Down Wall Street)

One evening, while having dinner with a fundamentalist, I accidentally knocked a sharp knife off the edge of the table. He watched the knife twirl through the air, as it came to rest with the pointed end sticking into his shoe. “Why didn’t you move your foot”? I exclaimed. ‘I was waiting for it to come back up,” he replied.

---Ed Seykota (an avowed technician)

We will compare the pros and cons of fundamental and technical analysis towards the end of the course