

# Four Types of Price Variation: Applications for Marketing and Risk Management

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Mountains & Minds

## Price Patterns

- Those caused primarily by fundamental conditions in the market/industry
  - Annual nature of production systems
  - Infrastructure for storage, handling and transportation, ...
- Those caused by uncertainty in the markets
  - Local, regional, global markets
  - **Markets hunting** for the right direction
  - Typically short run conditions



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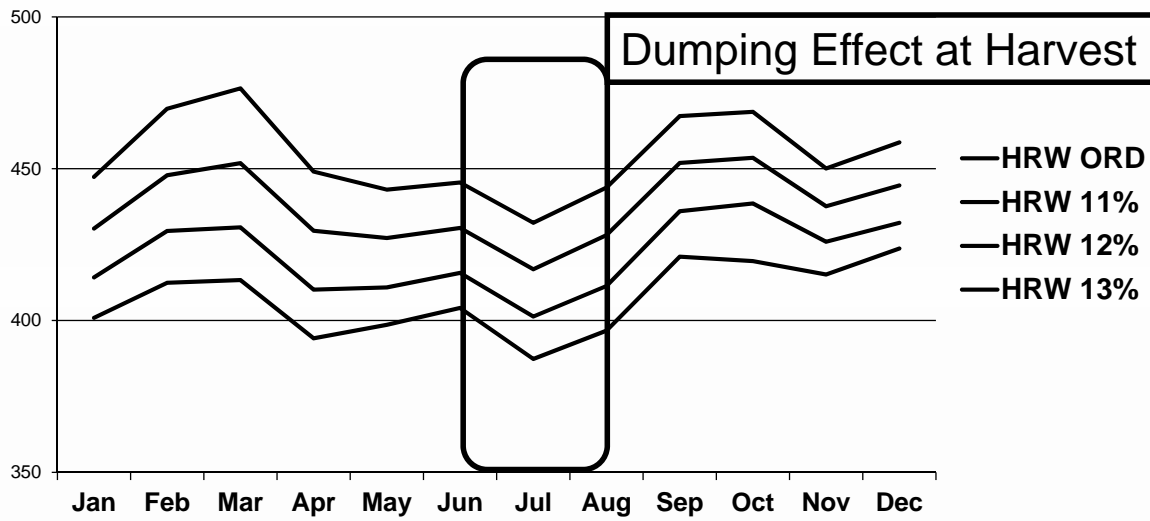
# Patterns Help Predict Price Variation

- Types of Price Variation/Market Expectations
  - **Seasonal**
    - Occur due to nature of commodity being marketed
      - Small grains harvest, weaned calves
      - Dumping effect
      - Carry markets that allow storage of commodities
  - **Cyclical (???????)**
    - Similar to seasonal but over a **longer period** of time
      - Cattle cycle
  - **Trend**
    - Major price moves in the same direction for a significant amount of time & based on fundamentals
  - **Random = Noise**
    - Imperfect knowledge; Short lived
    - Another type of variation will eventually prevail to establish price/patterns
- Basic Patterns are driven by Fundamentals

## KCBT Weekly on 11-1-10



# Seasonal Pattern Avg. Monthly Cash Price Avg. Monthly Price – HRW (2000 - 2010)

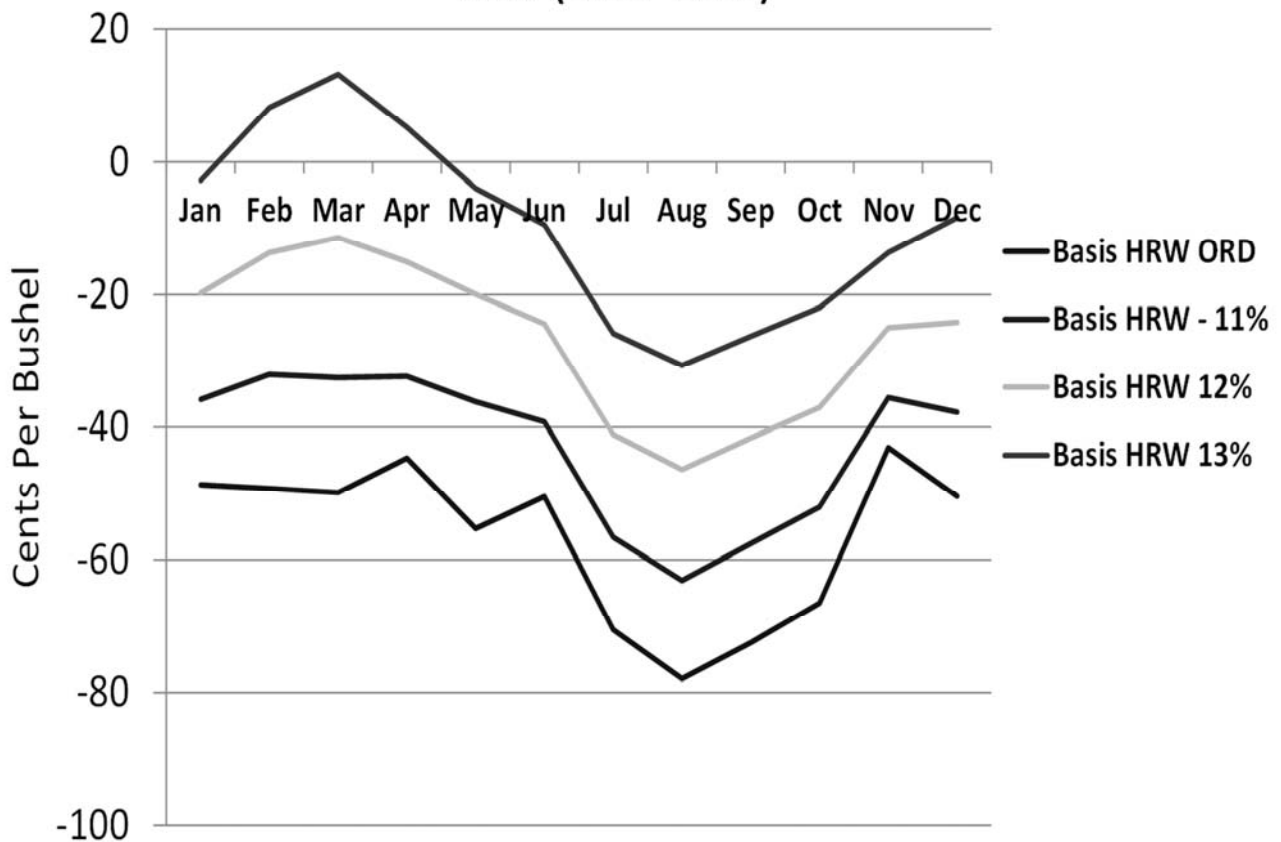


**Patterns more apparent with averaged Basis data**

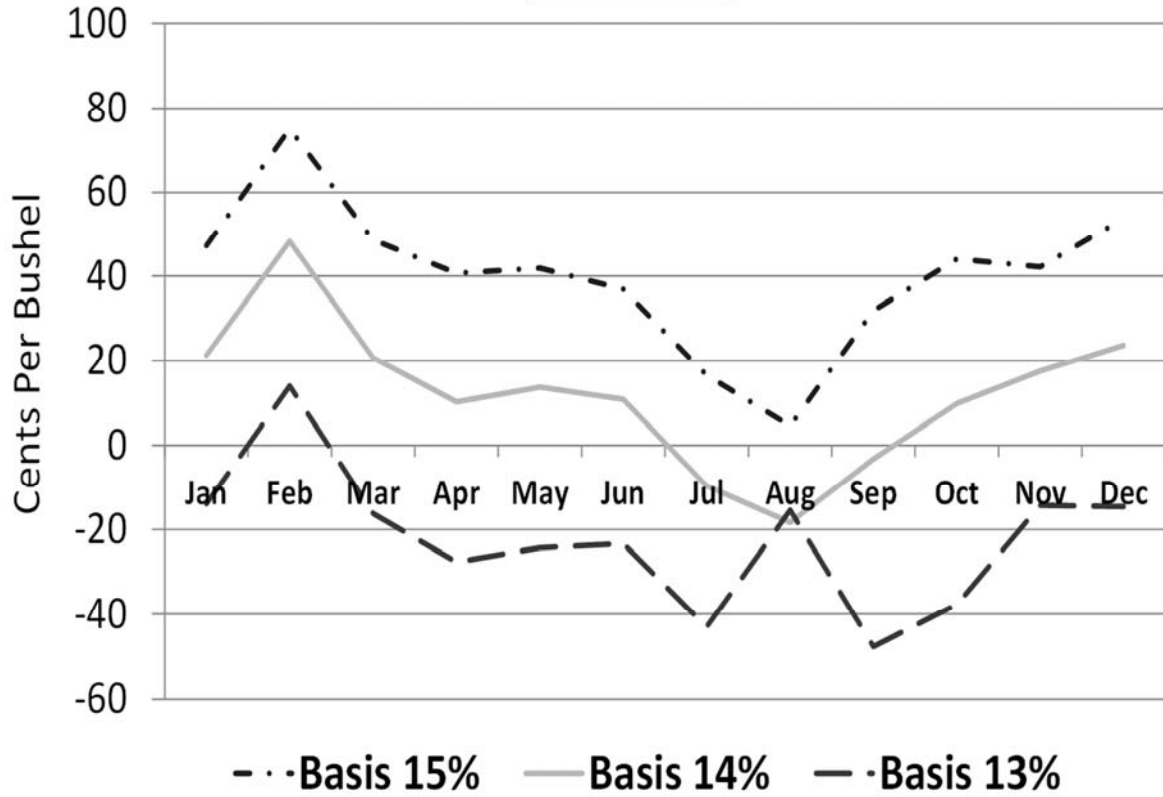


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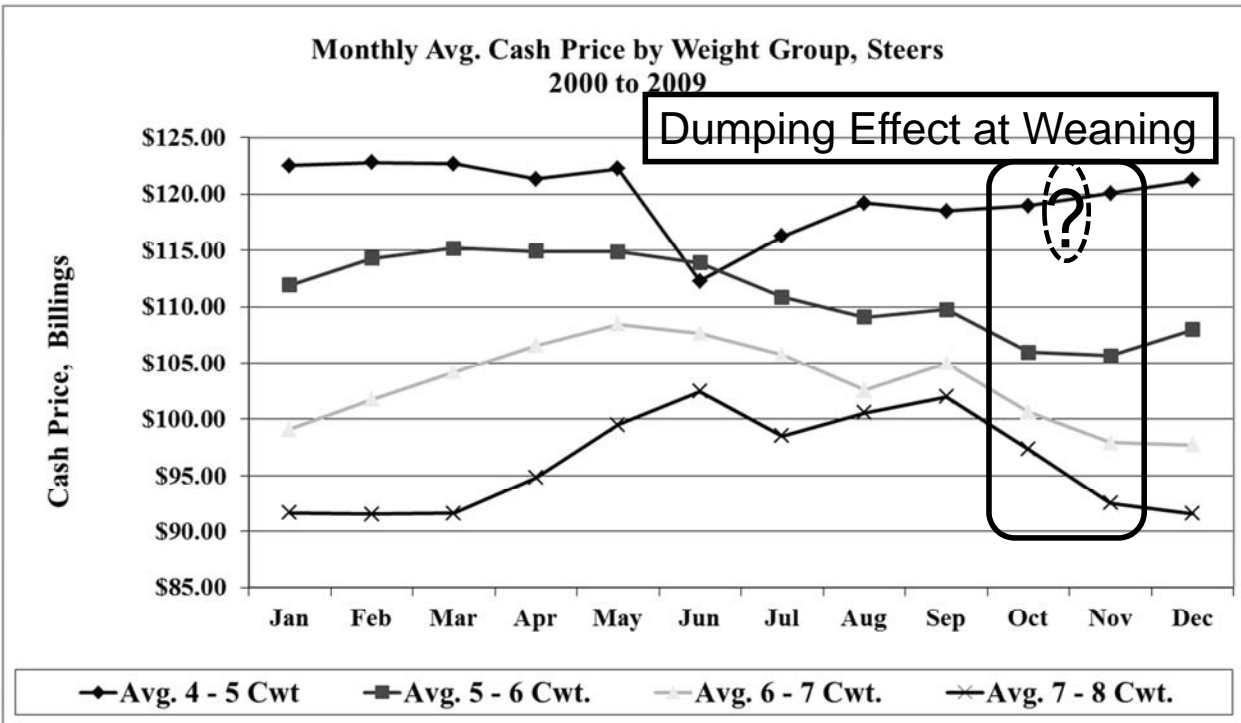
## Avg. Monthly Basis - Billings HRW (2000 - 2010)



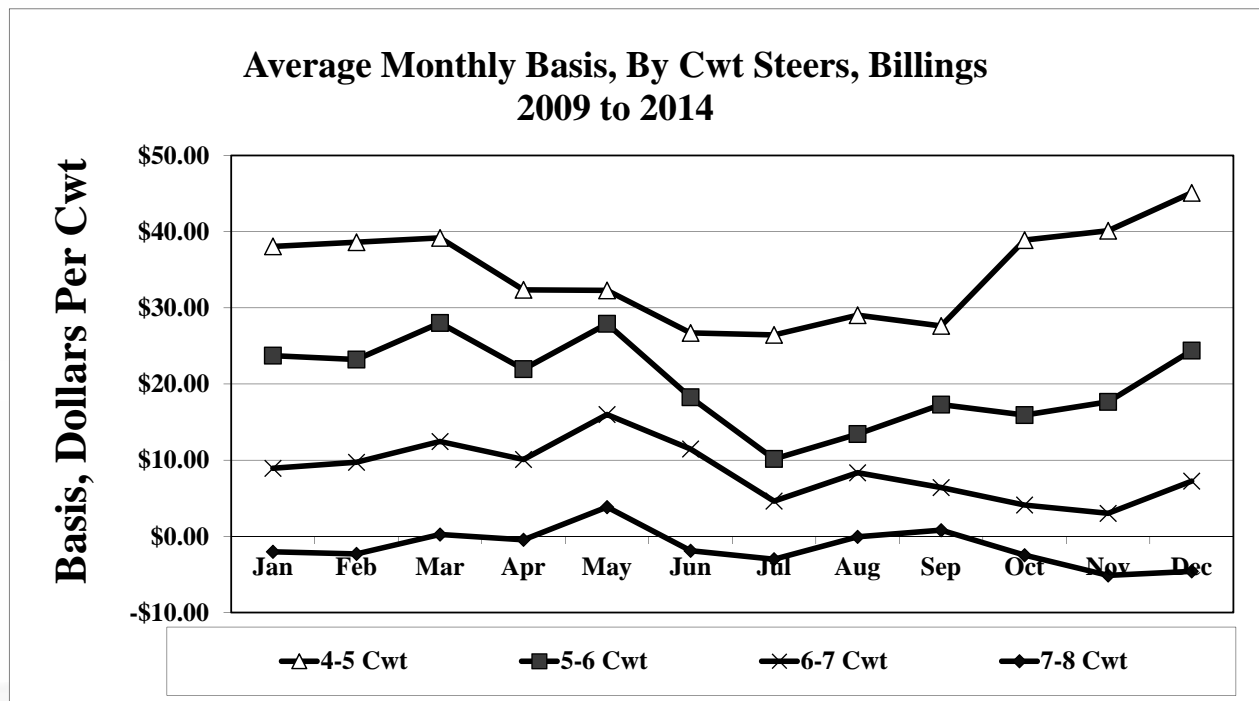
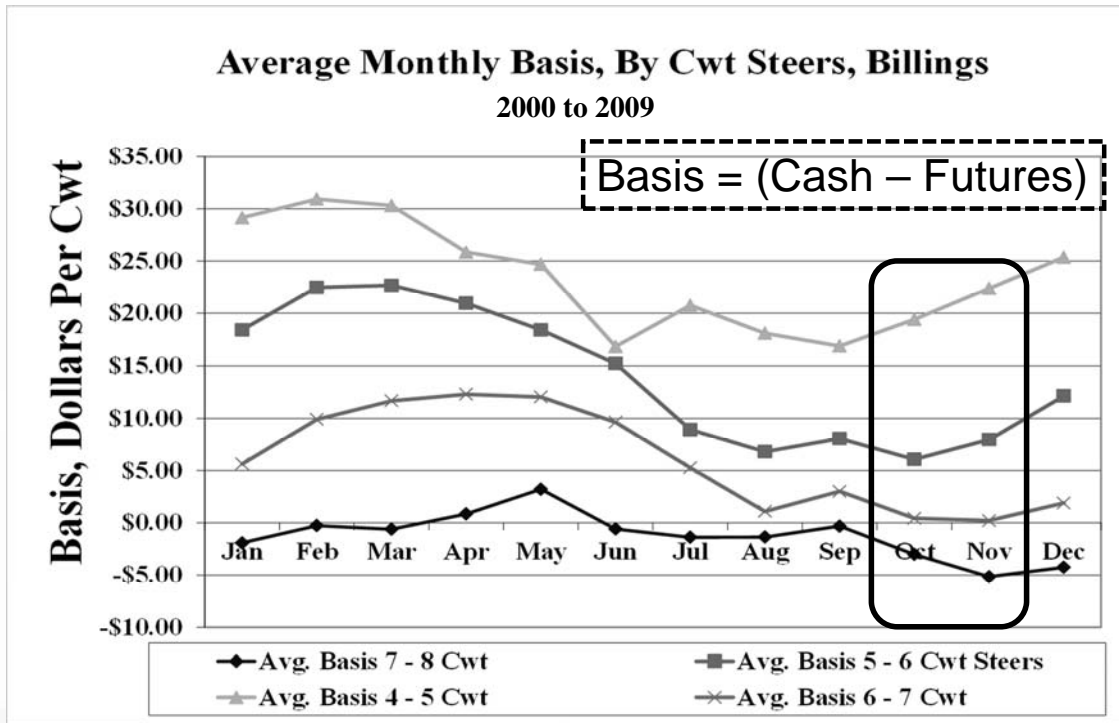
### Avg. Monthly Basis - Billings DNS (2000 - 2010)



### Seasonal Pattern Montana Monthly Avg. Steer Prices by Weight



# Montana Monthly Avg. Basis by Weight, Steers



# CBOT Weekly, Nov. 1, 2010



## Cyclical Patterns

- Cyclical is similar to Seasonal but over longer period of time
- Cattle Cycle is dead or taking a very long rest
- Grains do not show much of a cyclical pattern
  - Ability to store grain to level out supply and demand

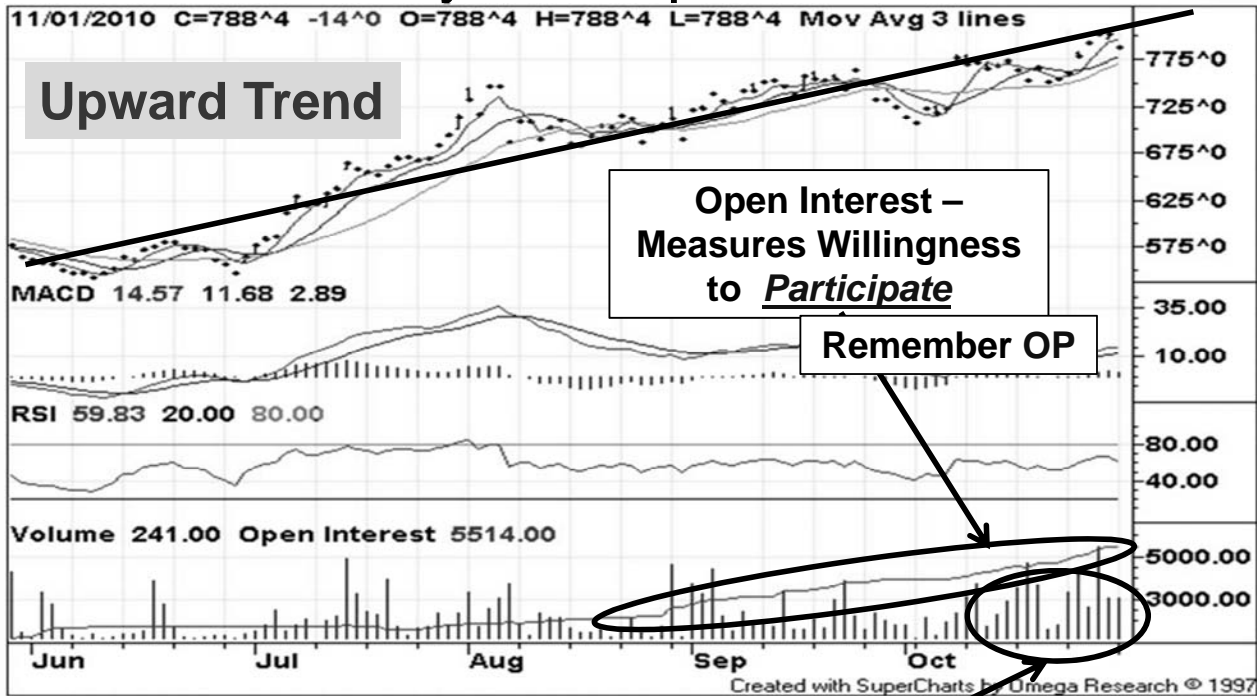
# Trends Defined

- Major price moves in the same direction for a significant amount of time, several months
- Trends can be up, down, or sideways
- Trends are based on fundamentals
  - Demand and supply
  - Relates to local, regional, global markets
    - Long term issues related to basic harvest, storage, transportation, handling, global markets, weather,...
    - Combinations of several factors at the same time
- Short term scares, panic, can affect Trends

## Note About Technical Analysis

- Technical analysis uses graphs to try and determine what prices are going to do.
- This type of analysis requires precise knowledge of each Technical charting signal
  - Trend lines, Key Reversals, Head and Shoulders, Flags, etc.
- Trend lines used on the following graphs is in a broader scope of identifying price patterns, not precise Technical Analysis

# KCBT Daily for Sept 2011, 11-1-10



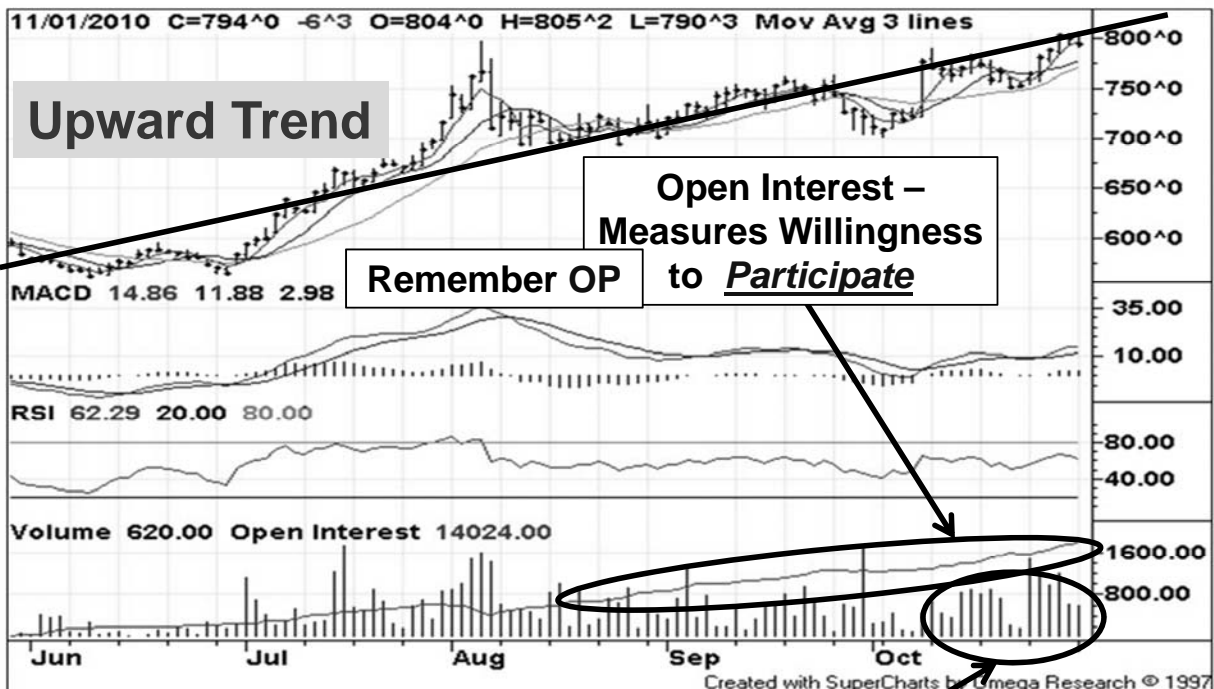
Volume - Measures Sense of Urgency

Remember VU



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# CBOT Daily, Sept 2011, on 11-1-10



Remember OP

Open Interest - Measures Willingness to Participate

Volume - Measures Sense of Urgency

Remember VU



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## Additional Grain Market Information

- **Open Interest** and **Volume** of Trades
- **Open Interest** measures the **Willingness to Participate**:
  - High or Low, I think I am where I need to be
- **Volume** provides a measure of **Urgency**
  - High or Increasing, “traders” want in **or**
  - Low or Decreasing, “traders” want out
- Helps identify **Trends** based of fundamentals

## Looking at Available Data

- Drill Down Approach
  - Continuous Charts: Monthly > Weekly > Daily
  - Specific Month Chart: Daily
- Different slices of time can provide a look at where we are at and how we got there.
- **You do not have to be a trader/broker/etc. to use this information for marketing.**

# Monthly Feeder Cattle Futures, Feb. 4, 2015

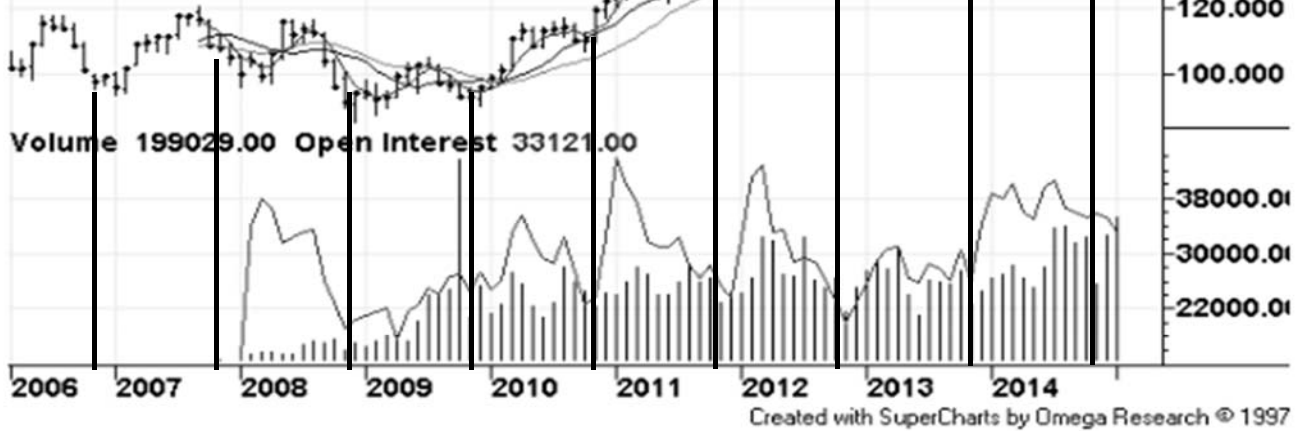
01/30/2015 C=211.690 -7.760 O=220.525 H=228.500 L=208.300

## Continuous Chart

Contract Months Traded

Jan, Mar, Apr, May, Aug, Sep, Oct, Nov

## Seasonal Pattern



# Monthly Feeder Futures, Feb. 4, 2015

01/30/2015 C=211.690 -7.760 O=220.525 H=228.500 L=208.300

## Trends

## Continuous Chart



# Weekly Feeder Cattle, Feb 4, 2015

01/30/2015 C=211.690 -2.010 O=213.500 H=214.750 L=208.300

## Continuous Chart



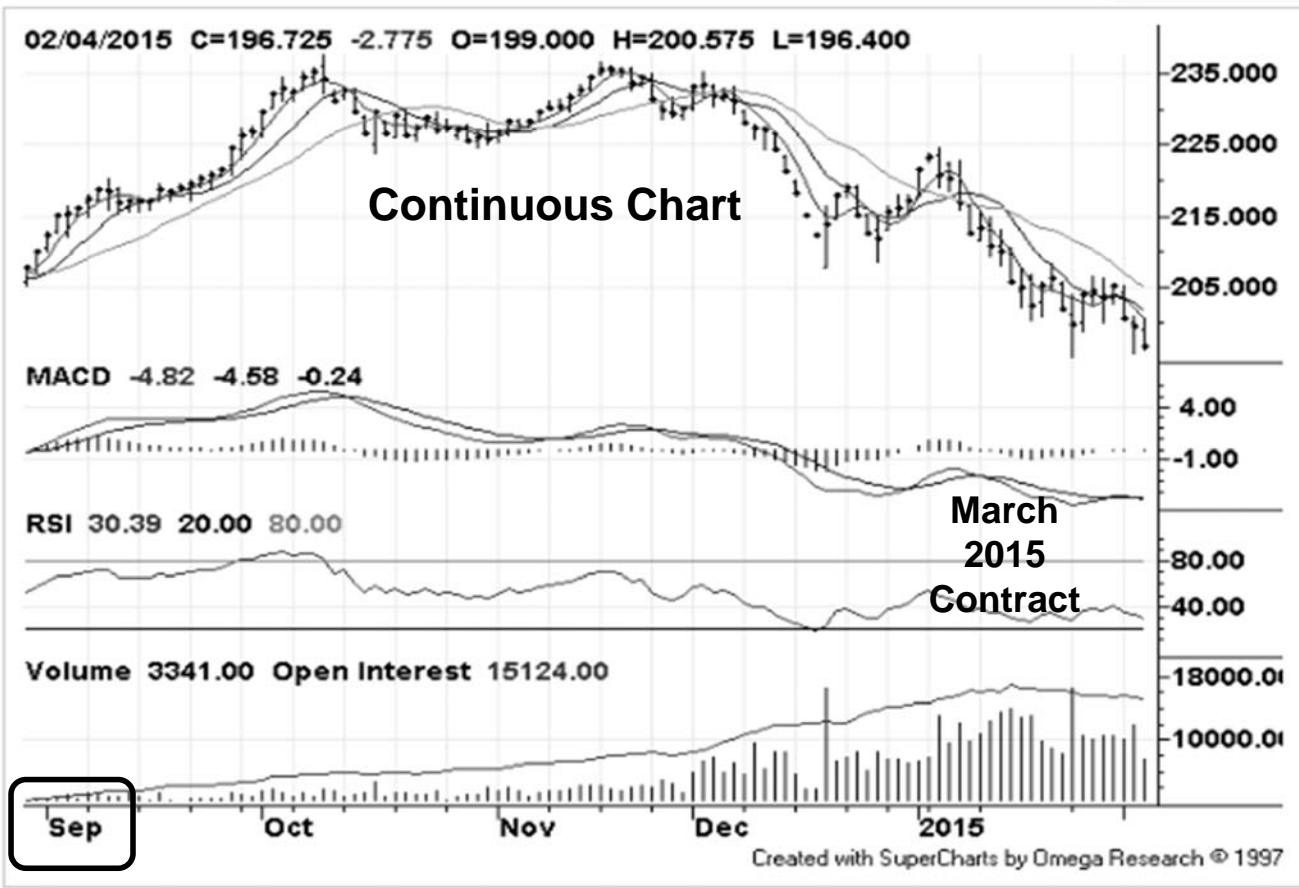
# Weekly Feeder Futures, Feb. 4, 2015 No Indicators

01/30/2015 C=211.690 -2.010 O=213.500 H=214.750 L=208.300

## Continuous Chart

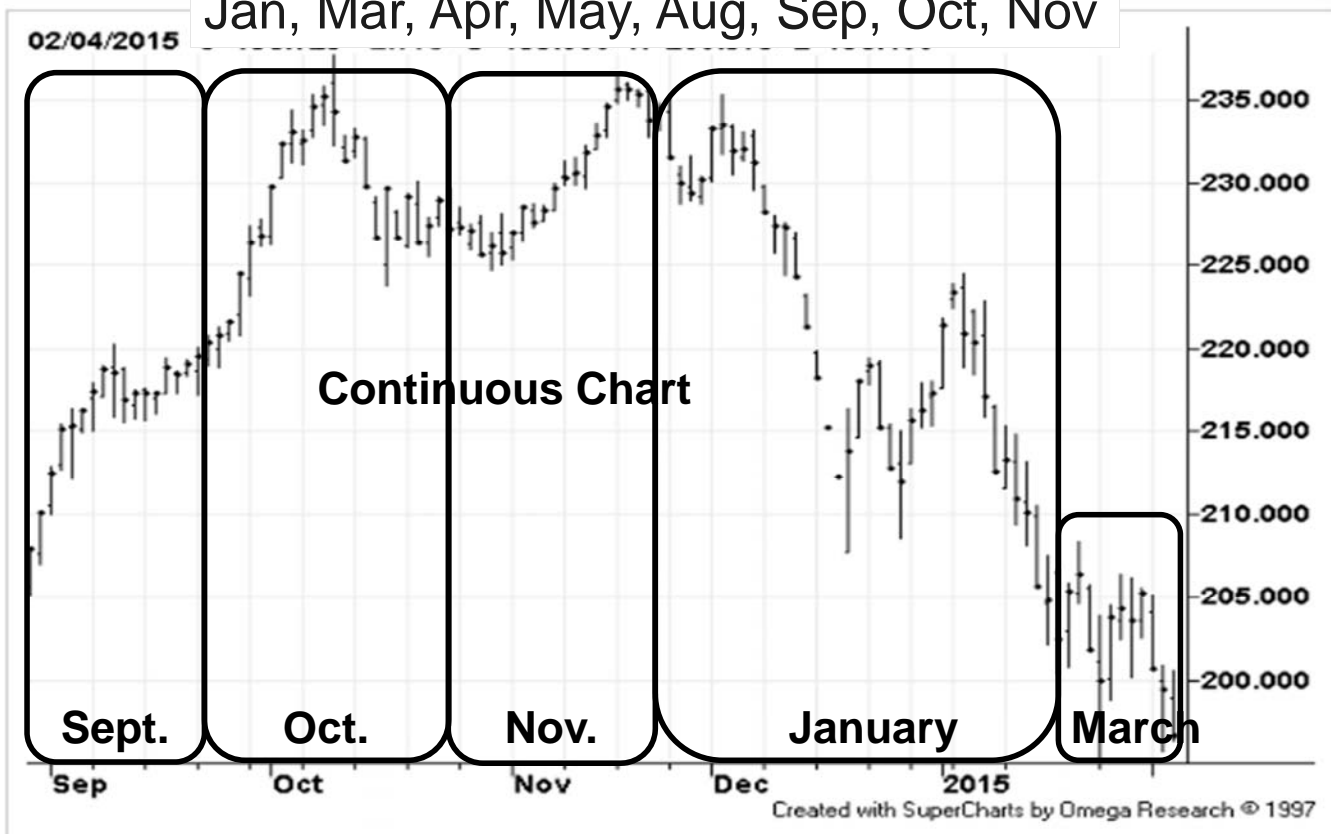


# Daily Feeder Cattle Futures, Feb. 4, 2015



# Daily Feeder Cattle -- Feb. 4, 2015

Jan, Mar, Apr, May, Aug, Sep, Oct, Nov



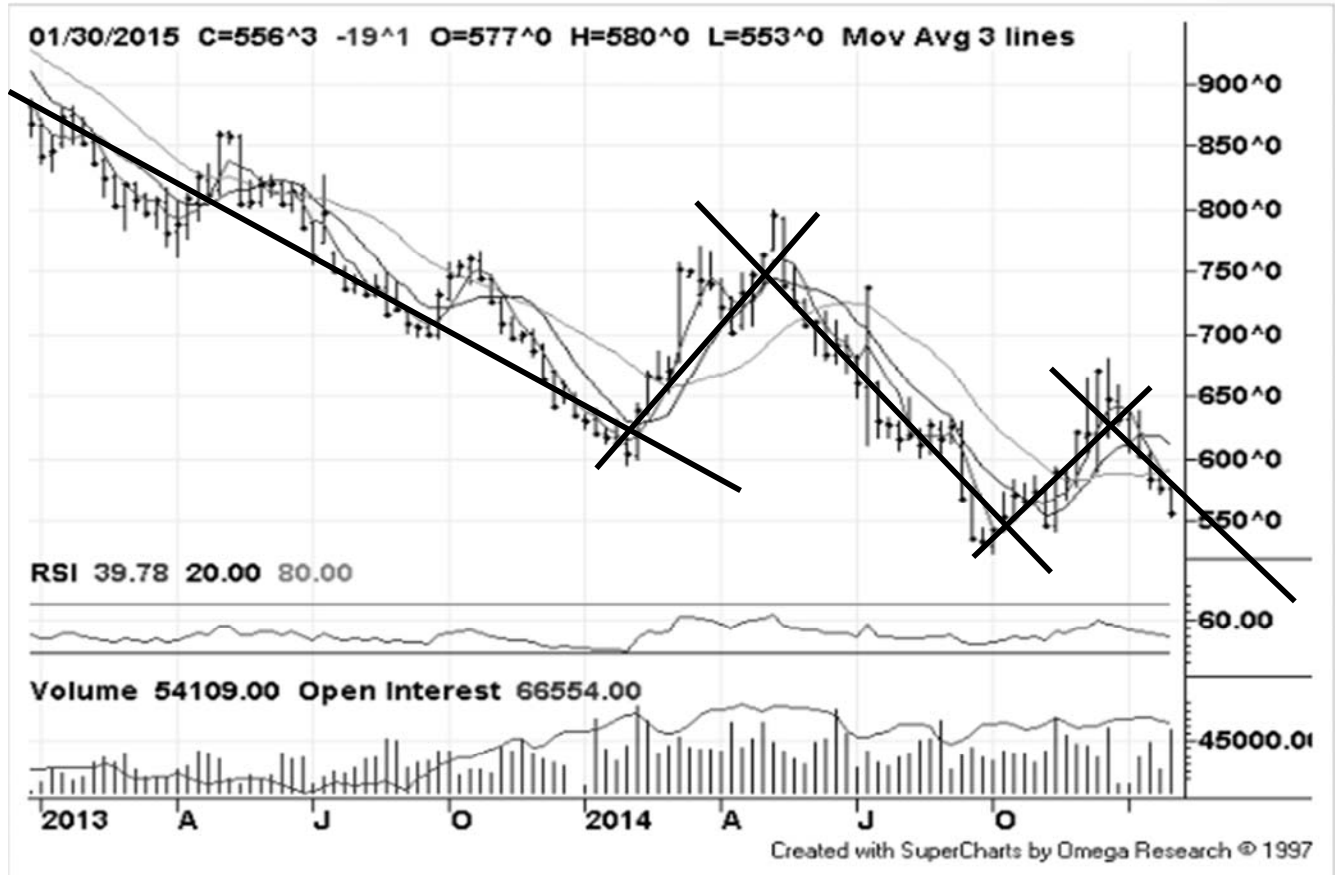
# Daily Feeder Cattle for Oct. 2015, on Feb. 4, 2015



# MGE Hard Red Spring, Monthly, Feb. 2015



# MGE HRS Weekly Chart, Feb. 2015



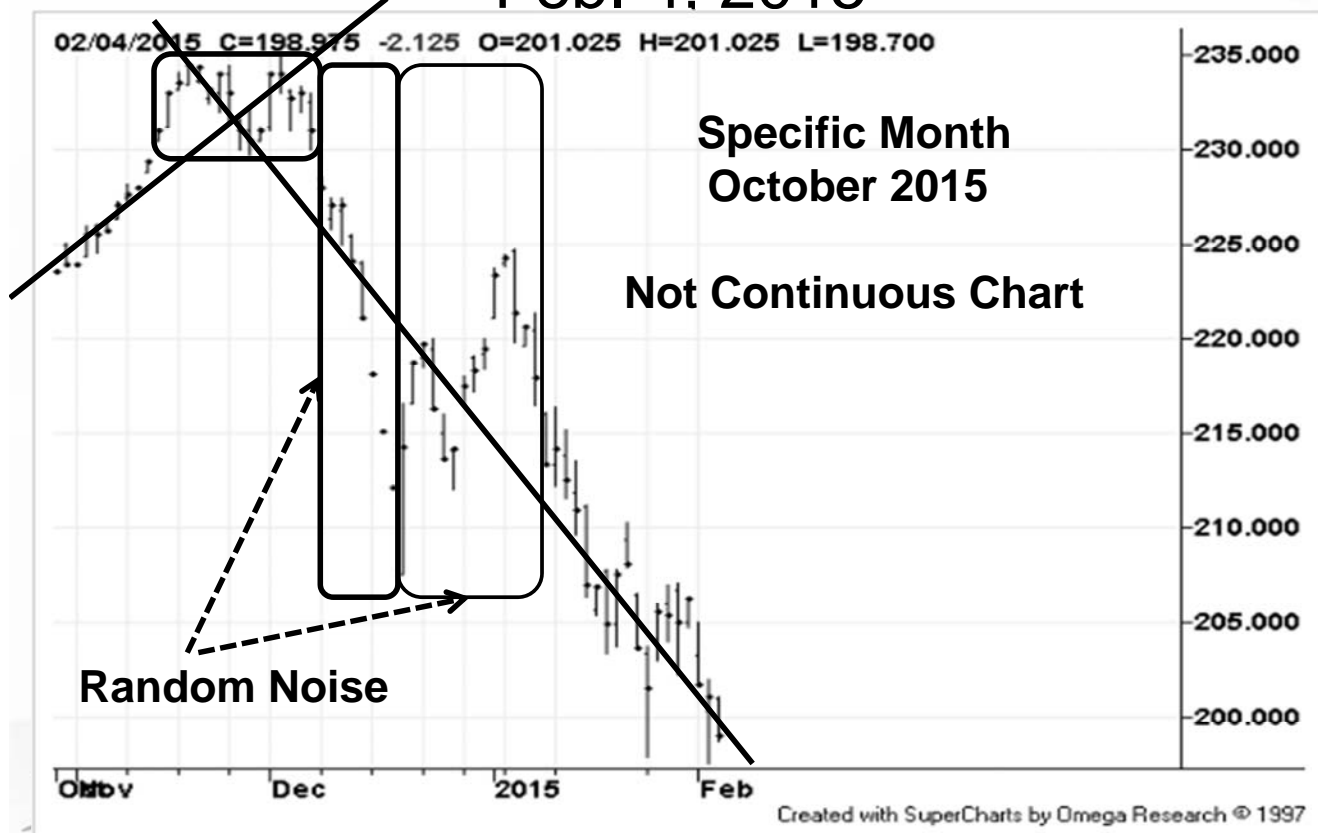
# MGE HRS Daily Chart, Feb. 5, 2015



# Random Price Variation

- Random price variation (market noise) occurs with imperfect knowledge
  - Uncertainty in fundamentals
- Relatively Short term
  - Weather scares
  - Yields, harvest difficulties, transportation
- One of the other three types of price variation will eventually prevail to **establish price**

## Daily Feeder Cattle for Oct. 2015, on Feb. 4, 2015



# Marketing Loss Implications Gross & Net Income

				Your Operation
		Wheat	Feeders	
Single Unit Yield (Bu., Cwt., Lbs.)	A	50	580	
Number Units (Acres, Head...)	B	300	200	
Total Production	C A*B	<b>15,000</b>	<b>116,000</b>	
Unit Price (Bu., Cwt., Lbs. ...)	D	\$7.11	\$2.85	
<b>Gross Revenue</b>	E C*D	<b>\$106,650</b>	<b>\$330,600</b>	
Unit Cost of Production	F	\$3.50	\$1.25	
<b>Total Unit Expense</b>	G C*F	<b>\$52,500</b>	<b>\$116,000</b>	
<b>Net Income (Gross Revenue - Expense)</b>	H E-G	<b>\$54,150</b>	<b>\$214,600</b>	
Possible Price Decline	I	\$0.80	\$0.50	
<b>Gross Dollars Lost</b>	J C*I	<b>\$12,000</b>	<b>\$58,000</b>	
<b>Loss as % of Gross Income</b>	K E-J	<b>11.3%</b>	<b>17.5%</b>	
<b>Loss as % of Net Income</b>	L H-J	<b>22.2%</b>	<b>27.0%</b>	
<b>Marginal Tax Rate</b>	M	25%		
<b><u>Potential</u> Tax Savings</b>	N M*J	<b>\$3,000</b>	<b>\$14,500</b>	

## Questions

## Web Address to Download Files

<http://rightrisk.org/presentations>

