

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

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Price Patterns

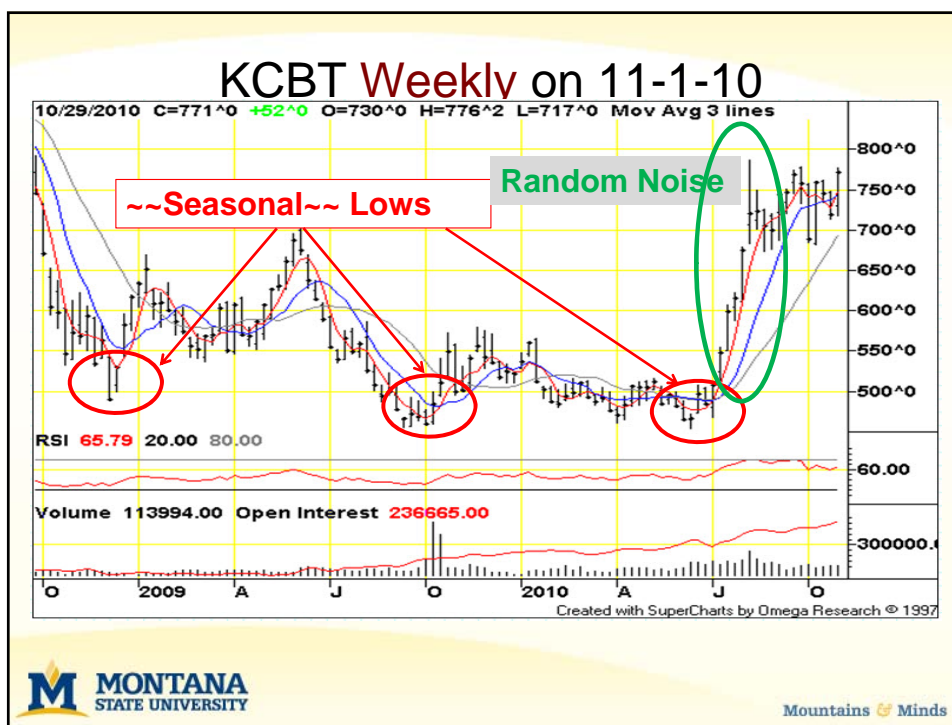
- Those caused primarily by fundamental conditions in the market/industry
 - Annual nature of production systems
 - Infrastructure for storage, handling and transportation, ...
- Those caused by uncertainty in the markets
 - Local, regional, global markets
 - **Markets hunting** for the right direction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

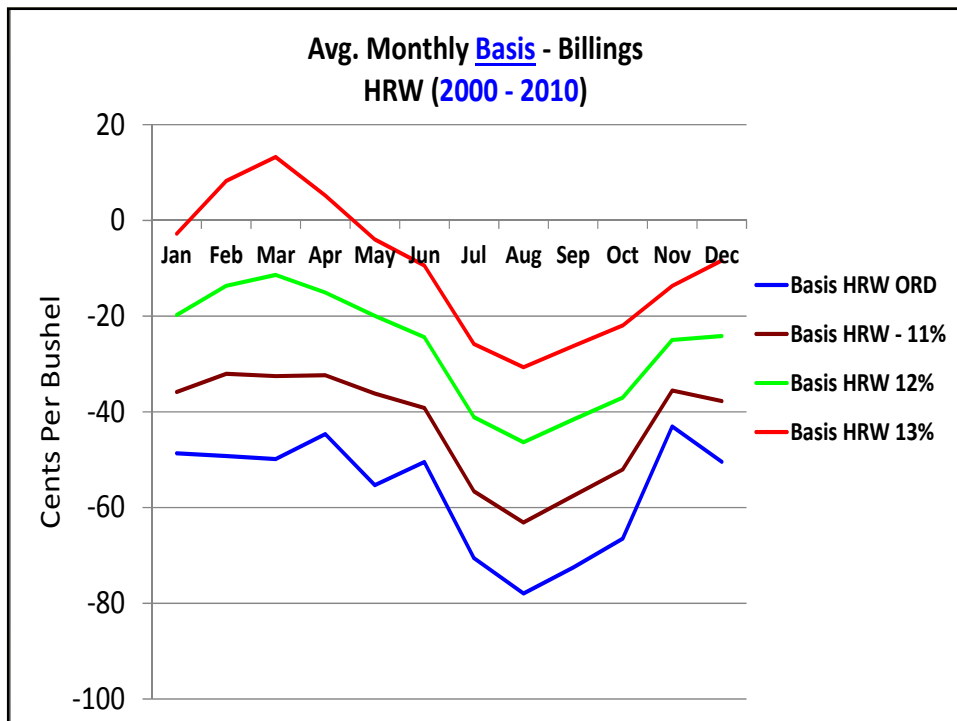
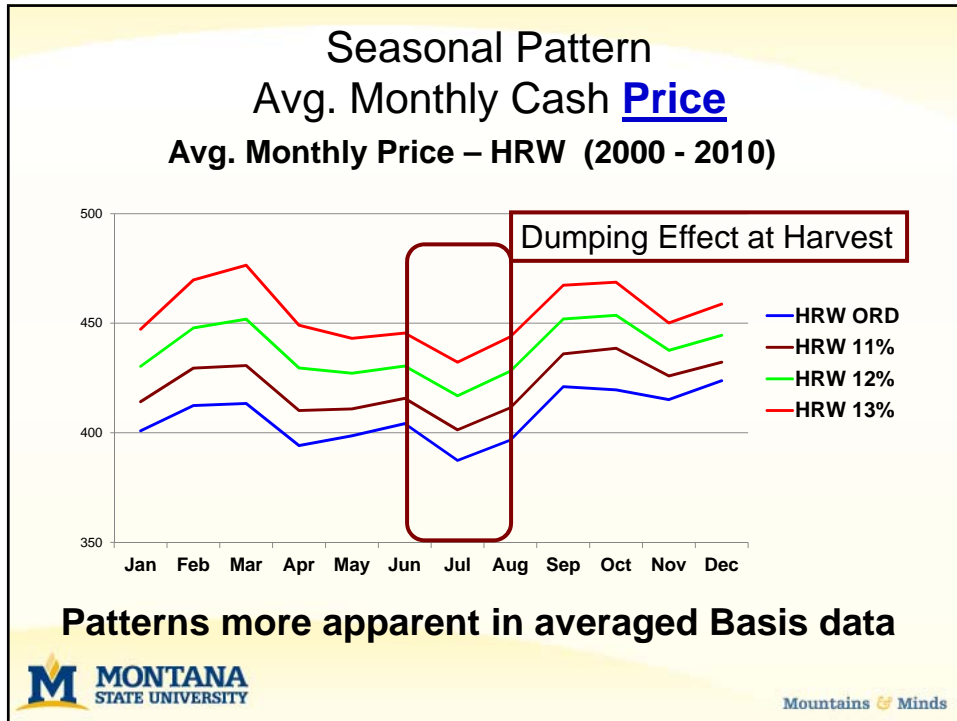


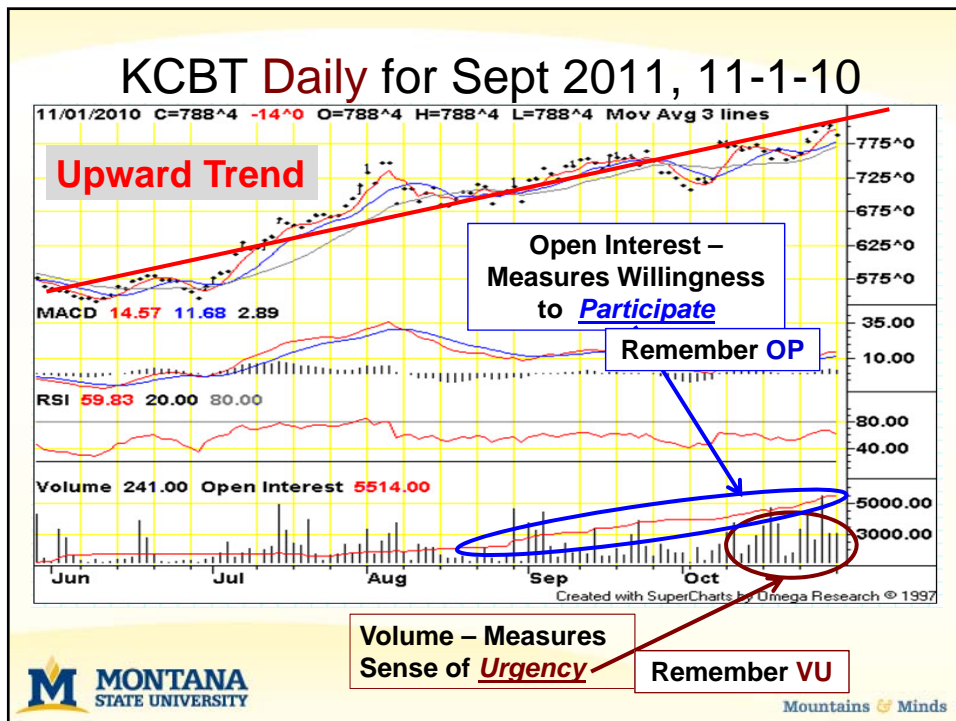
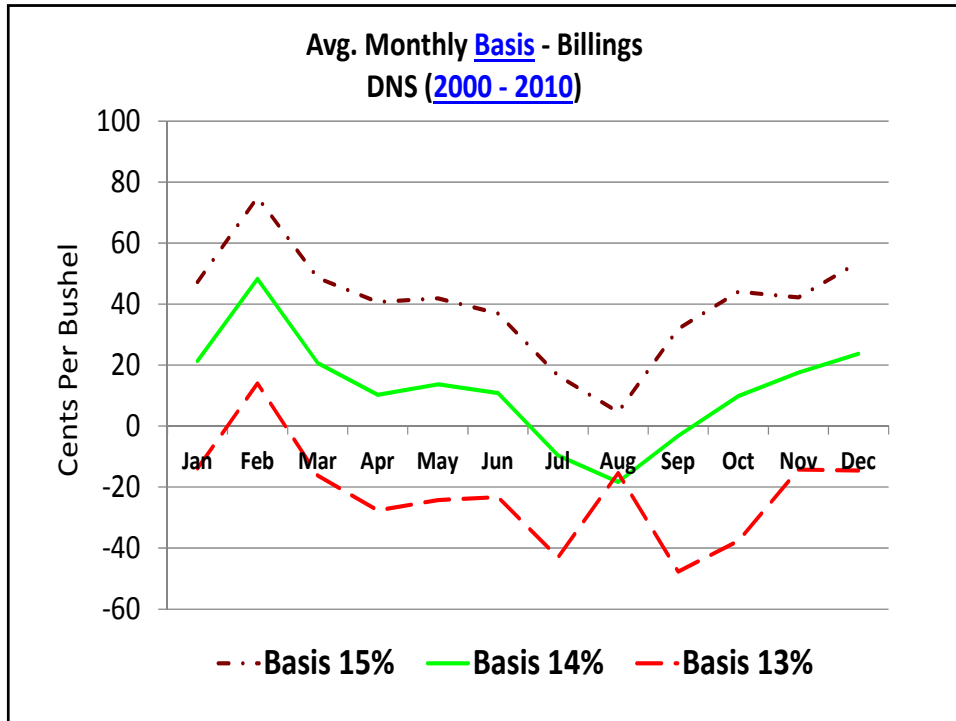
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Patterns Help Predict Price Variation

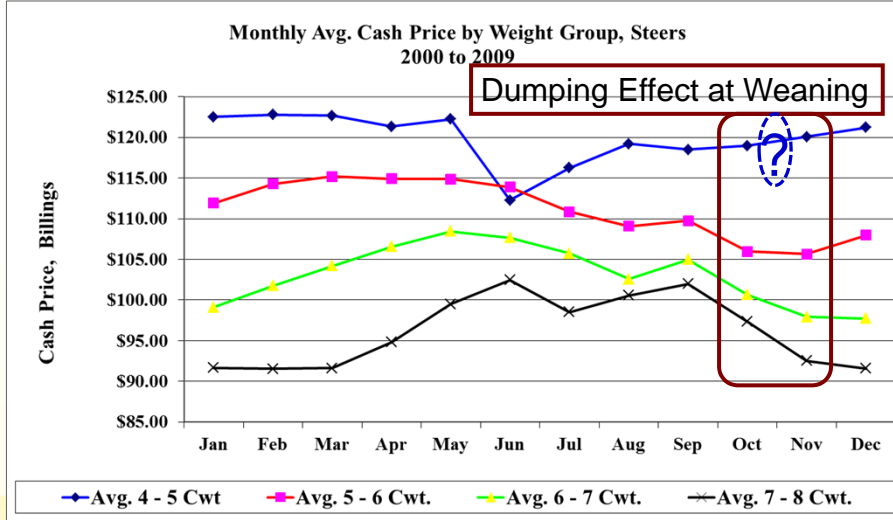
- Types of Price Variation/Market Expectations
 - **Seasonal**
 - Occur due to nature of commodity being marketed
 - Small grains harvest, weaned calves
 - Dumping effect
 - Carry markets that allow storage of commodities
 - **Cyclical (??????)**
 - Similar to seasonal but over a **longer period** of 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





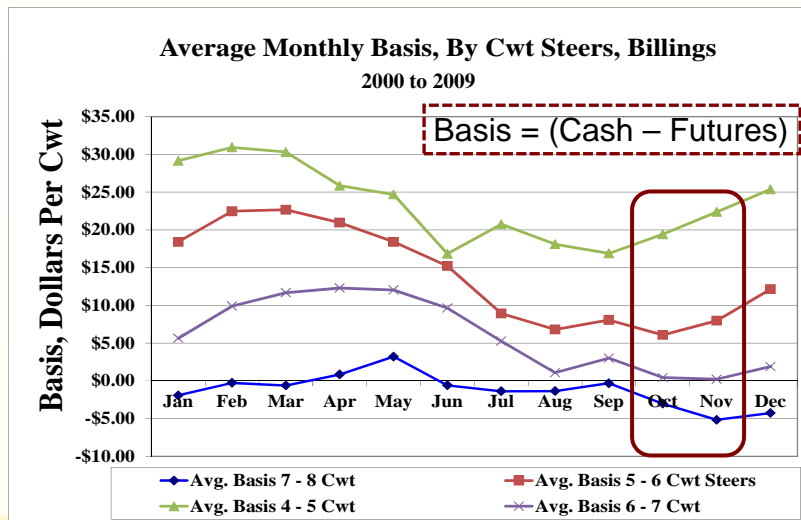


Seasonal Pattern Montana Monthly Avg. Steer Prices by Weight



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Montana Monthly Avg. Basis by Weight, Steers



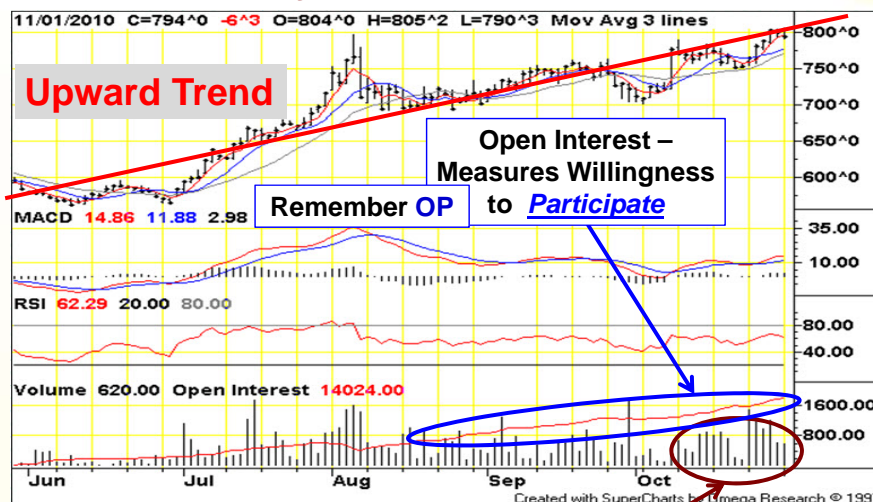
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CBOT Weekly, Nov. 1, 2010



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



Volume - Measures Sense of Urgency

Remember VU

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Information From Grain Markets

- Markets often display seasonal patterns for commodities that can be stored
- They help measure the **Willingness to Participate** with high **Open Interest**
 - Increasing and “traders” want in **or**
 - Decreasing and traders want out
- Provides a measure of **Urgency**, high **Volume** of contracts traded
 - I think I am where I need to be
- Identify Trends based of fundamentals



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Trends Defined

- Major price moves in the same direction for a **significant** amount of time
- Trends can be up, down, or sideways
- Trends are almost always 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



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Random Price Variation

- Random price variation occurs with imperfect knowledge
 - Uncertainty in fundamentals
- Short term weather **scares**
 - Yields, harvest difficulties
- These variations are relatively short lived
- One of the other three types of price variation will eventually prevail to **establish price**



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KCBT HRW Sept. 2014 > [In Sept. 2013](#)

Commodity Exchange KCBT

HRW – Billings	Ord.	11%	12%	13%
Futures Price ¹	\$7.10	\$7.10	\$7.10	\$7.10
Avg. Basis ²	\$.73	\$.58	\$.42	\$.26
Predicted Local Cash Price	\$6.37	\$6.52	\$6.68	\$6.84
Basis Standard Dev.	\$.66	\$.48	\$.36	\$.28
Price Range Forecast ³	\$5.71 – \$7.03	\$6.04 – \$7.00	\$6.32 – \$7.04	\$6.56 – \$7.12

¹ Mid Sept. 2013 for Sept. Contract for 2014

² Billings Average Basis for 2000 through 2010

³ Predicted Local Cash Price +/- one Standard Deviation of the basis = range of prices = (68% chance of price being in this range)



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KCBT HRW Sept. 2014 Projection > **Jan. 17, 2014**

Commodity Exchange KCBT

HRW – Billings	Ord.	11%	12%	13%
Futures Price ¹	\$6.30	\$6.30	\$6.30	\$6.30
Avg. Basis ²	\$.73	\$.58	\$.42	\$.26
Predicted Local Cash Price	\$5.57	\$5.72	\$5.88	\$6.04
Basis Standard Dev.	\$.66	\$.48	\$.36	\$.28
Price Range Forecast ³	\$4.84 – \$6.23	\$5.14 – \$6.20	\$5.52 – \$6.24	\$5.76 – \$6.32

¹ Jan. 17, 2014 for Sept. 2014 Contract

² Billings Average Basis for 2000 through 2010

³ Predicted Local Cash Price +/- one Standard Deviation of the basis = range of prices = (68% chance of price being in this range)



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Marketing Is About Taking A Price

HRW – Billings	Ord.	11%	12%	13%
Predicted Local Cash Price on Sept. 2013	\$6.37	\$6.52	\$6.68	\$6.84
Predicted Local Cash Price on Jan. 18, 2014	\$5.57	\$5.72	\$5.88	\$6.04
Difference	-\$0.80	-\$0.80	-\$0.80	-\$0.80

Marketing is not about being able to affect your local price, it is about taking a good price when it was offered.



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Marketing
Loss
Implications
: Gross &
Net Income

Unit Price	\$7.11
Unit Yield	50
Acres Planted	300
Gross Value	\$106,650
Unit Cost of Production	\$3.50
Total Unit Expense	\$52,500
Net Income	\$54,150
Price Decline	\$0.80
Gross Dollars Lost	\$12,000
Loss as % of Gross Income	11.3%
Loss as % of Net Income	22.2%



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Questions

