

**13. Livestock and Meat Price Discovery: Where did it go?
Does it matter? What now?**

Ted Schroeder

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Ted is a professor in Ag Economics at Kansas State University. His research on livestock marketing and price analysis provides information and direction for the livestock and grain industries. His research focuses on improving commodity market efficiency by investigating price discovery methods, improving market coordinating mechanisms, assessing meat demand, and understanding commodity market risk.

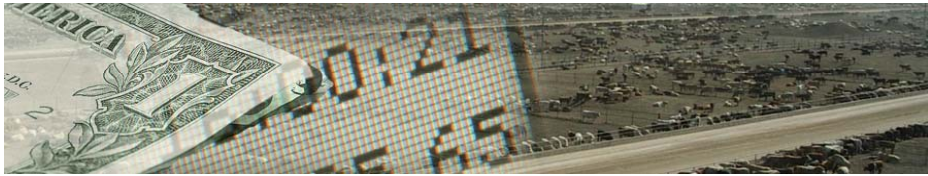
Abstract/Summary

Effective price discovery is essential for providing incentives and value signals to producers. However, discovering prices is a time consuming and costly activity that requires reliable market information. Long term changes in marketing practices have dramatically altered the nature of price discovery in livestock and meat markets. Let's discuss what this means for producers and evaluate what can be done.

Price Discovery in Agriculture

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Manhattan KS

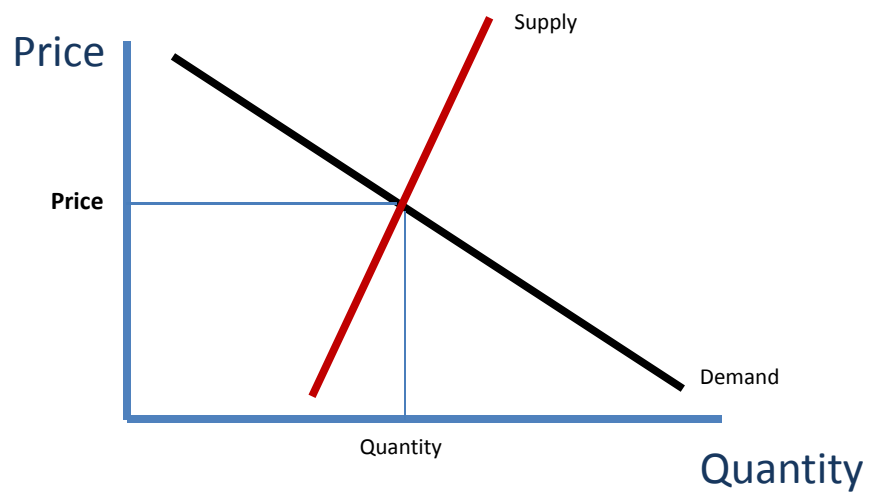


What is Price Discovery?

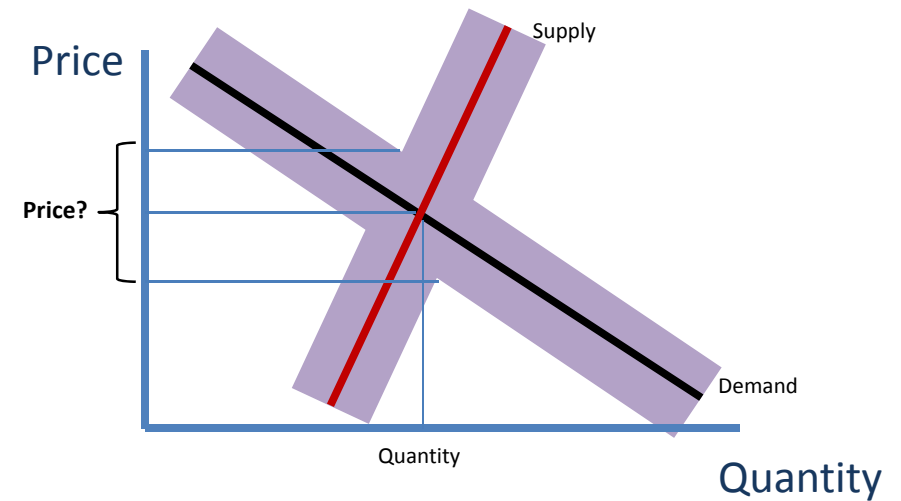
*The impounding of new information into
an asset price*



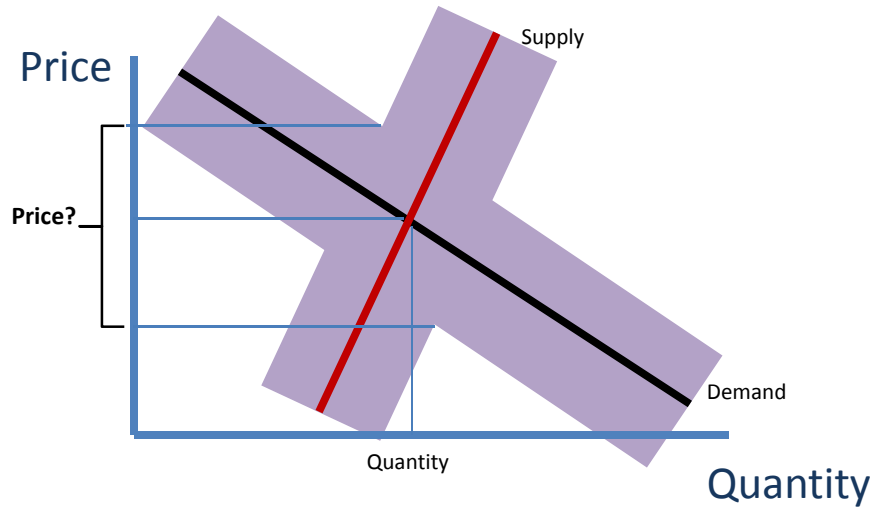
Price Discovery



Price Discovery – informed market



Price Discovery – information starved



How is Price Discovered?

A collage of images illustrating price discovery methods: a stock market floor with many people, a man and a woman shaking hands at a table, a large crowd of people in an auction, a newspaper classifieds page, an eBay logo, a GeneNet contract document, and a man talking on a red telephone.

Determine Base Price - 2 Options	
Option 1 Formula	USDA Process Steers * Weighted Average
Start Price = USDA 95 Avg.	Indonesia Ciment Beef Price
Option 2 Bid + Start Price	Call Contractor Office 735-625-3554 to get on our list and we will then call you with a bid when cattle are ready.
Amount to add to Start Price	100% Grade % in place * Choice Spread + Start Price
To determine Choice Y3 Base Price	USDA Process Wash 5 Day Average
Choice Spread Minimum of \$4.00	
Premiums & Discounts to add or subtract from Base Price	
Front-End Spread	\$4.00 Premium
CAB-CX Spread	\$4.00 Premium
Wash Premium Choice	\$4.00 Premium
Standards	\$10.00 under Select
Commercial/Health	\$20.00 under Select
Dark Cuts, Yellow, etc	Market
Conditioned Cattle	No Value
Yield Grade 1	\$5.00 Premium
Yield Grade 2	\$3.00 Premium
Yield Grade 3	Same
Yield Grade 4	\$20.00 under YG 3
Yield Grade 5	\$20.00 under YG 3
ESB - Over	\$10.00 Discount from base price (CX YG 3)
ESB - 7 up	\$10.00 Discount from base price (CX YG 3)

Please call for current premium paid for Source & Age Japan eligible cattle.
 *Bull Premium Choice Cattle 20 Choice heaviest beef cattle and 40 head head that is the best.
 *Example to figure amount to add to Start Price to determine CX Y3 Base Price:
 If the Start Price was \$100.00, the Choice spread was \$10.00, then amount added to the Start Price was \$110.00. If the Start Price was \$200.00, then 100% of 40% = \$15.00 = \$200.00 + \$200.00 = \$400.00 added to the Choice 3 Base Price.



Dimensions of Price Discovery?

1. Search costs – matching buyers and sellers (temporal, spatial, volume, quality)

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6. **Market leverage**
7. **Product differentiation / specification**

Price Discovery Concerns in Fed Cattle



Price Discovery in Fed Cattle

Lots of price & supply information

- Readily available USDA fed cattle prices for 5-regions
- Liquid futures market
- Mandatory daily wholesale price reporting
- Weekly USDA grid price premiums and discounts reported
- Weekly USDA cattle quality grading reports
- Daily cattle slaughter reports
- Monthly cattle on feed inventories

What matters for price discovery is:

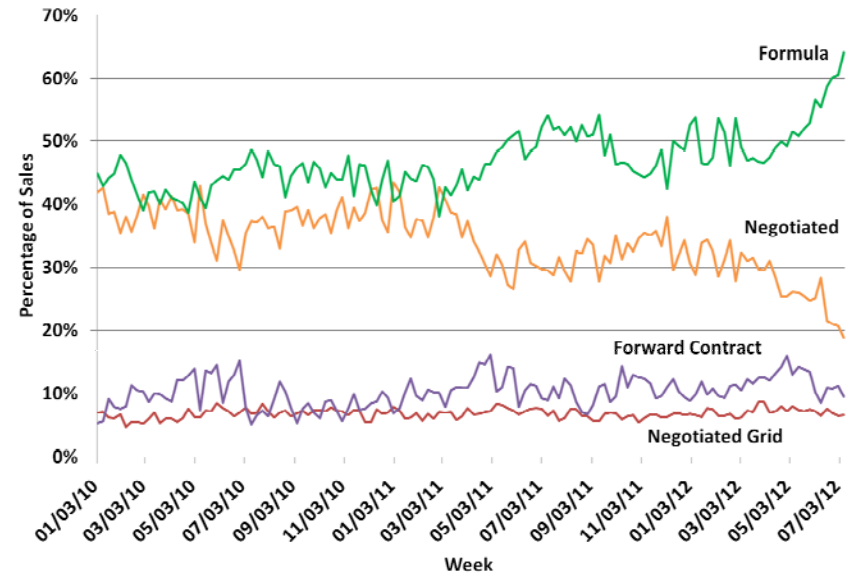
1. **What information is available AND**
2. **How it is used by industry participants**

Price Discovery in Fed Cattle

Describing the “contestable market”

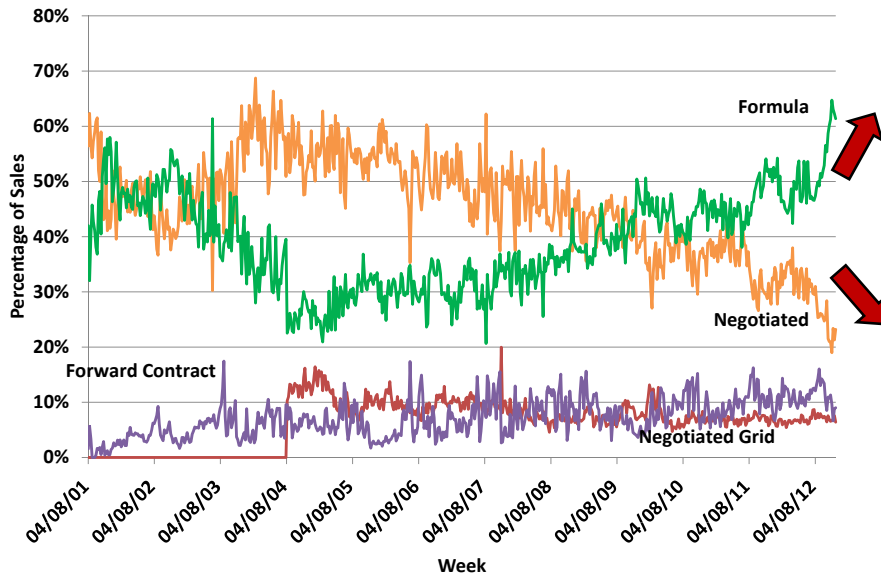
- perishable commodity – temporal
- Costly to transport (bulky, animal shrink) – spatial
- 4 large potential buyers (Cargill, Tyson, JBS, National) – structure
- Excess capacity in cattle slaughtering
- Several ways to price (live, dressed, grid, formula, negotiated) – quality

Ways Fed Cattle are Sold and Priced, Weekly 2010 - July 2012



Source: Livestock Marketing Information Center from USDA - AMS

Ways Fed Cattle are Sold and Priced, Weekly April 2001 - July 2012



Quote from USDA AMS SJ_LS850 Report Friday July 13, 2012

“The fed cattle cash market lost 2.00 this past week to 115.00 with negotiated sales now routinely making up less than 20 percent of the weekly slaughter. Over 60 percent of the weekly movement is formula-priced off the scant cash trade that is more like a dictatorship than a democracy. Soon, cattle feeders may be forced to ship their cattle with only a ballpark idea of what their check will look like – similar to the sheep industry.”

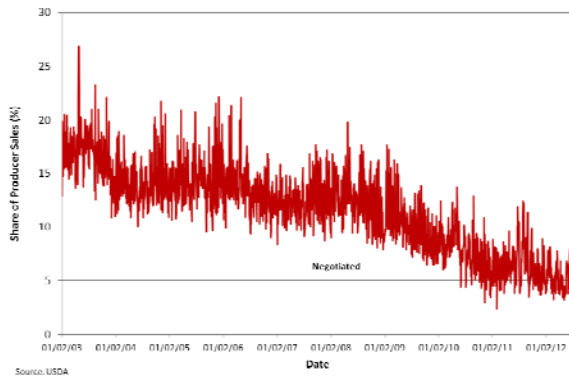
Is this Cause for Concern?

Why do people formula price?

- Cheap, no hassles, easy, if good base comfort

From a Policy Perspective – similar in hog market

Daily Prior Day Slaughter Producer Negotiated Hog Selling Method Share, 2003 - July 2012



We could see policy proposals again that attempt to regulate how livestock can be sold....

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What happens if the base price is “thin”?

What’s that mean? How do I know? Should I care?

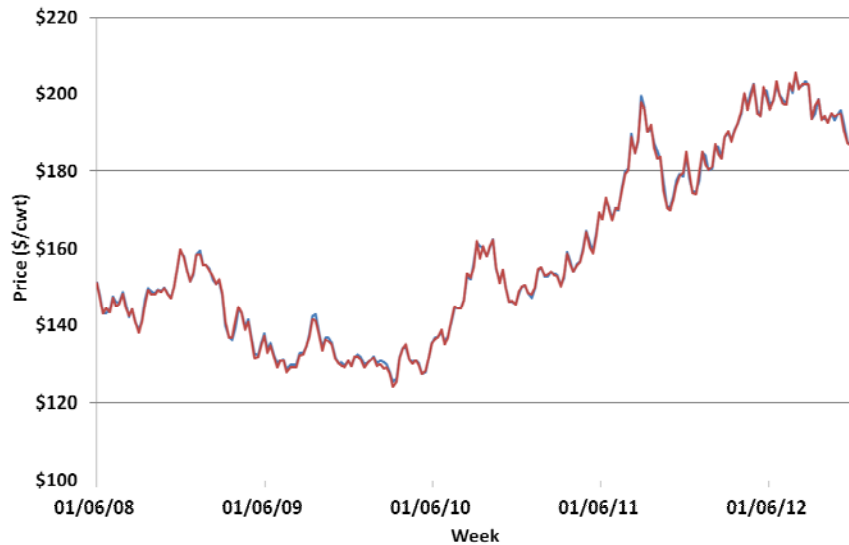
Thinness of base depends upon your:

- Tolerance – how wrong can base be and you still be satisfied?
- Confidence you need that the price is within tolerance range
- Market Price Variability present

If you are less tolerant, need high levels of confidence, and a lot of price variability is present day-to-day:

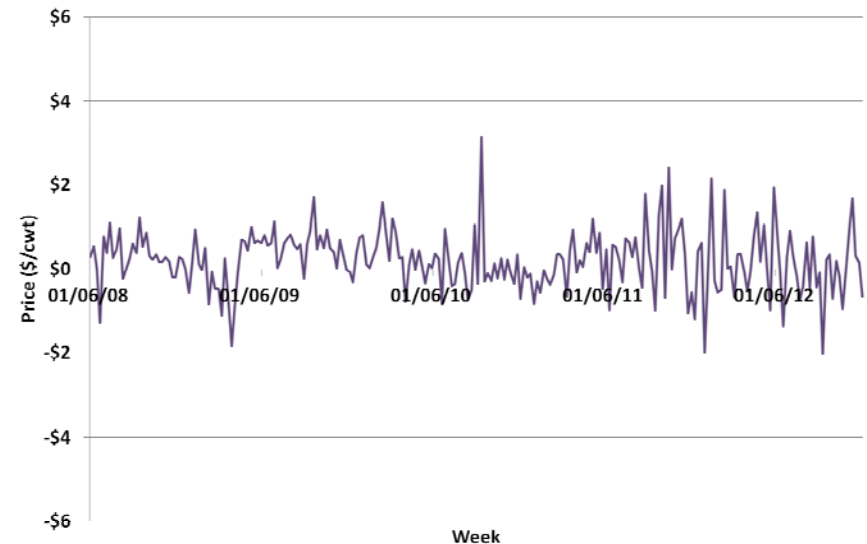
➔ More transactions negotiated for comfort with formula

Weekly 5-Market Wtd Average Dressed Steer Price, 35-65% and over 80% Choice, 2008 - July 2012



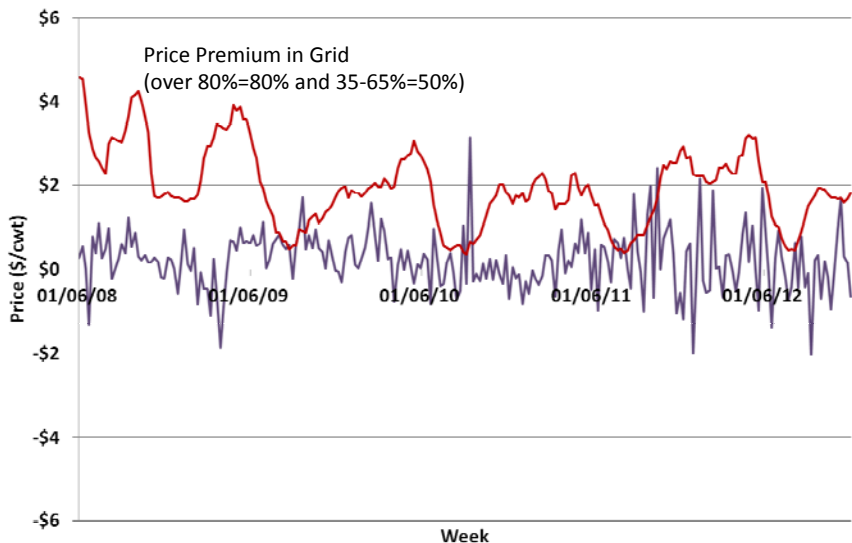
Source: Livestock Marketing Information Center from USDA - AMS

Weekly 5-Market Wtd Average Dressed Steer over 80% Choice Price minus 35-65% Choice, 2007 - July 2012



Source: Livestock Marketing Information Center from USDA - AMS

Weekly 5-Market Wtd Average Dressed Steer over 80% Choice Price minus 35-65% Choice and Grid Value Difference, 2007 - July 2012



Source: Livestock Marketing Information Center from USDA - AMS

Fed Cattle Price Discovery Illustration

Assume pen of steers:

- 2% Prime; 10% CAB; 45% Choice; 43% Select
- 5% YG 1; 35% YG 2; 57% YG 3; 3% YG 4-5
- no heavy or light weights or other outs

Compare dressed price to a grid value weekly during 2012

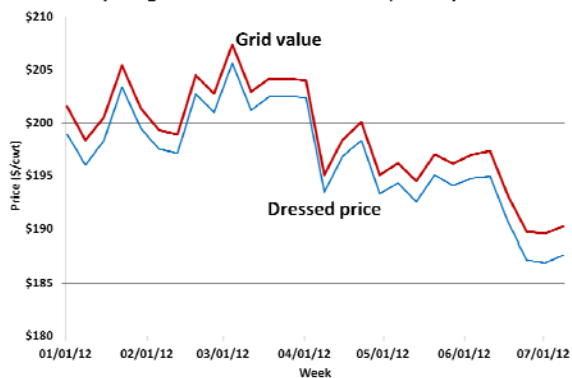
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Comparing Dressed Price to Grid Value, weekly 2012



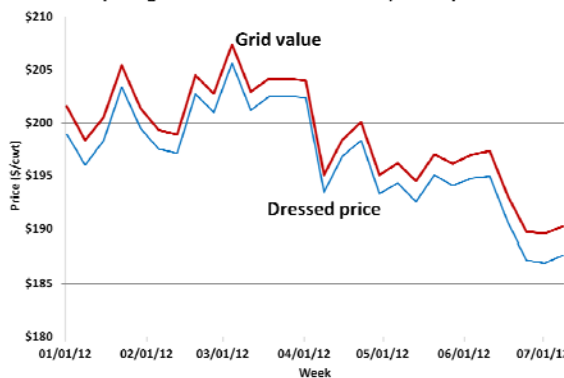
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Compare dressed price to a grid value weekly during 2012

Comparing Dressed Price to Grid Value, weekly 2012



50,000 head feedyard marketing 1500 hd/wk 880 lb carcass steers

\$737,000 revenue difference just first 28 weeks of 2012! (\$1.4 million/yr)

- What if you add more?
- Age & source <21 mos.
 - Branded program
 - Improve QG YG

BUT YOU BETTER SHOP AROUND

Grid Premiums & Discounts Range Week of July 9, 2012

(\$/cwt)

	Low	High	Wtd Average
Prime	\$8.00	\$40.00	\$22.34
CAB	\$2.00	\$6.00	\$4.05
Choice	\$0.00	\$0.00	\$0.00
Select	-\$18.00	-\$14.00	-\$15.85
YG 1	\$1.50	\$3.00	\$2.12
YG 2	\$0.00	\$2.50	\$1.99
YG 3	\$0.00	\$0.00	\$0.00
YG 4	-\$15.00	-\$6.00	-\$10.30

Source: USDA

Summary

Effective price discovery:

- Costly
- Time consuming
- Requires information
- Requires analytics, expertise, & commitment

Noise in price discovery & discovered prices

Informed markets - price is very valuable information

Local cash markets less informed than broader national markets – opportunity to arbitrage

The more you differentiate and add value in production, the more time & resources you want to devote to price & value discovery!



Photograph by Michael Forsberg