

Minnesota Pork Council -- January 2010

Economic Outlook – Where Are We Now Going?

Steve R. Meyer, Ph.D.
Paragon Economics, Inc.



First – The new elephant in the room

- Smithfield is closing Sioux City on April 20
- Current capacity: 14,000 head per day
- Plant was built in the early '60s (??) – relatively old but far from the oldest
- LIMITED PROCESSING – primarily a kill-cut facility
- Location is no longer a positive for Sioux City – especially without the stockyards
- COMPLETELY FORESEEABLE!!!!

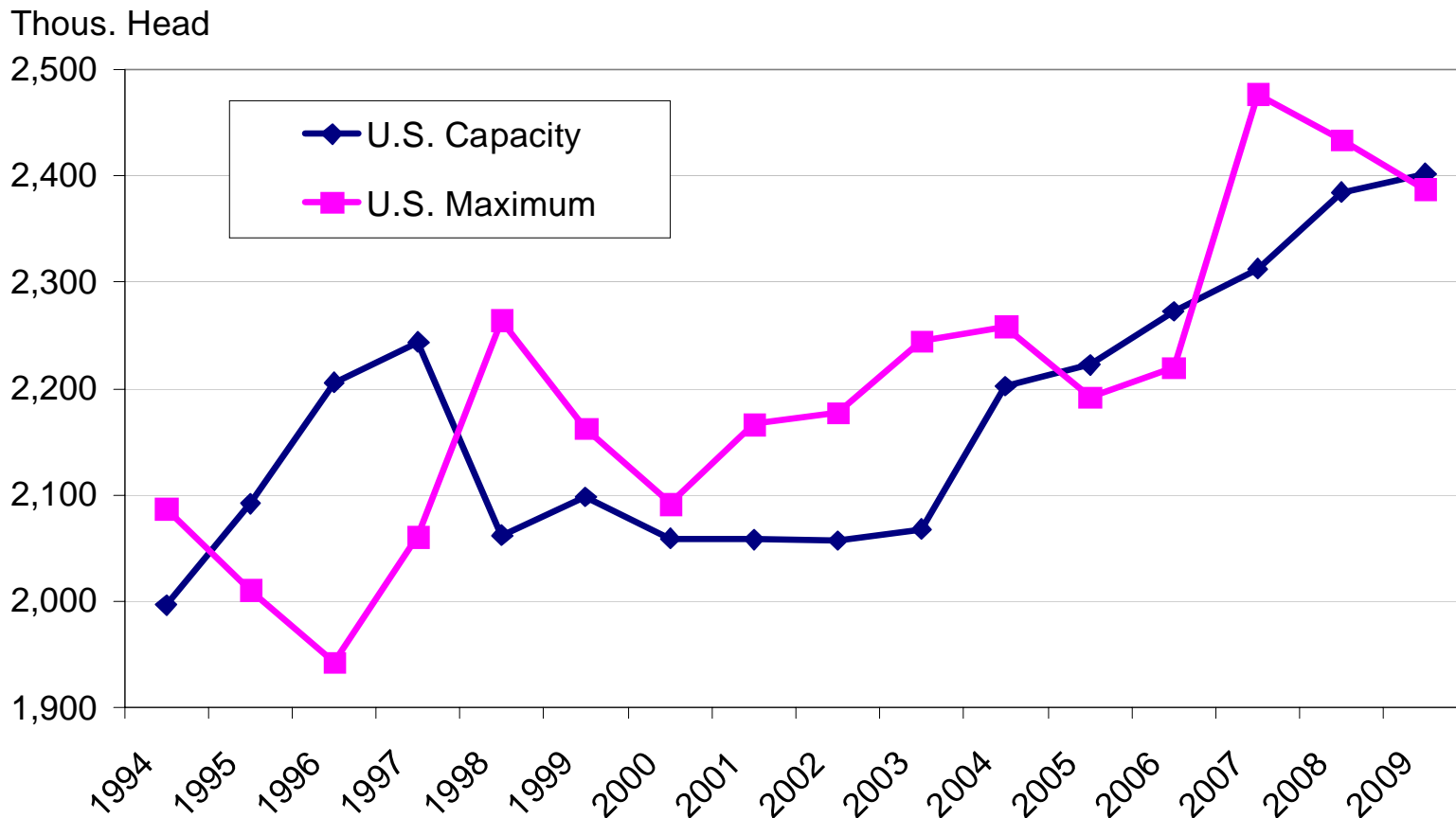


2009: Max weekly kill was below capacity

... For the industry as a whole

U.S. WEEKLY SLAUGHTER CAPACITY

(Assumes an average of 5.4 days/week)



Paragon Economics, Inc.

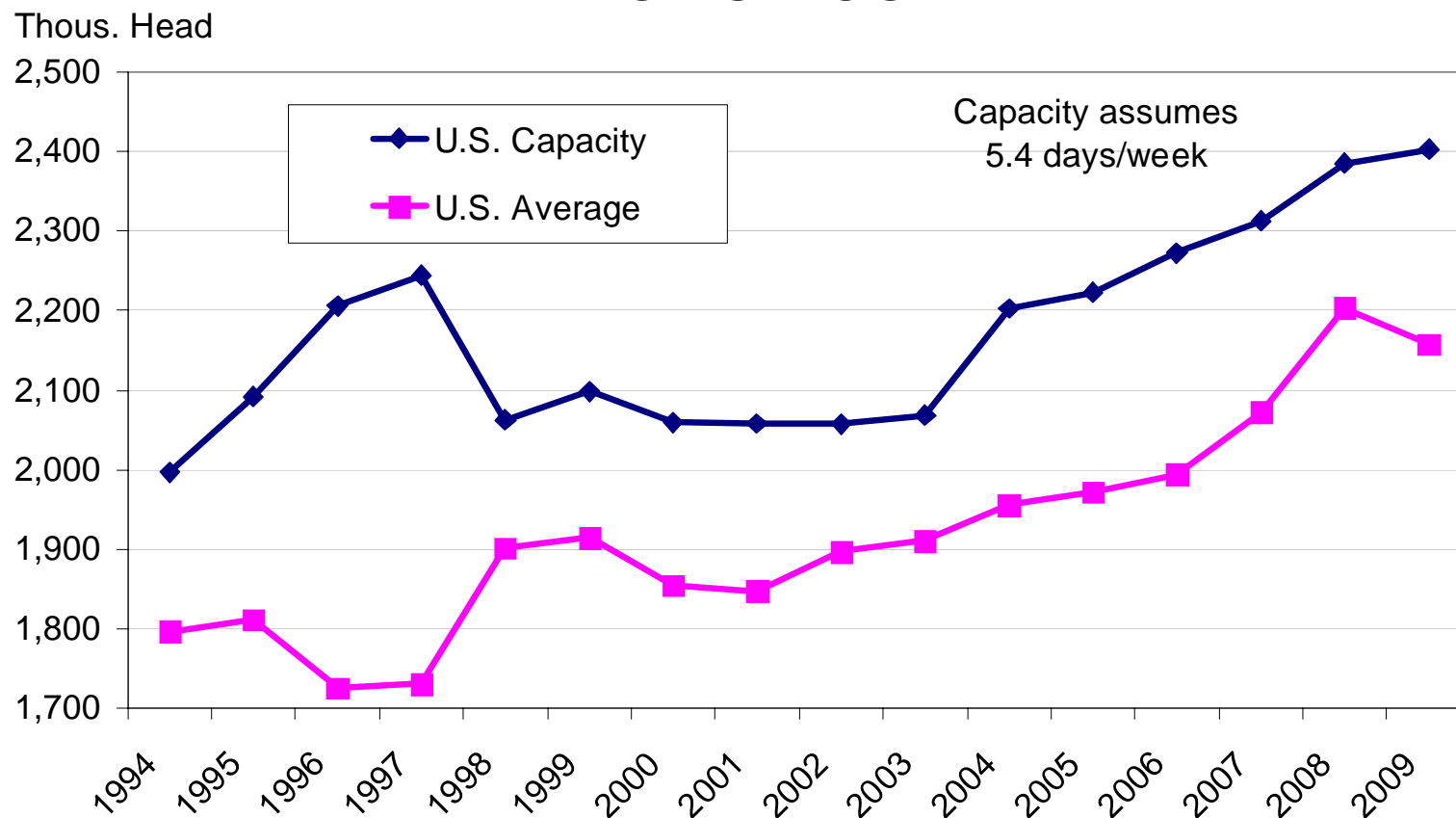
From information, knowledge



Not good BUT NOTHING LIKE 1998!!!

... Note the drop in capacity utilization in '09

U.S. WEEKLY SLAUGHTER CAPACITY & AVERAGE SLAUGHTER



Paragon Economics, Inc.

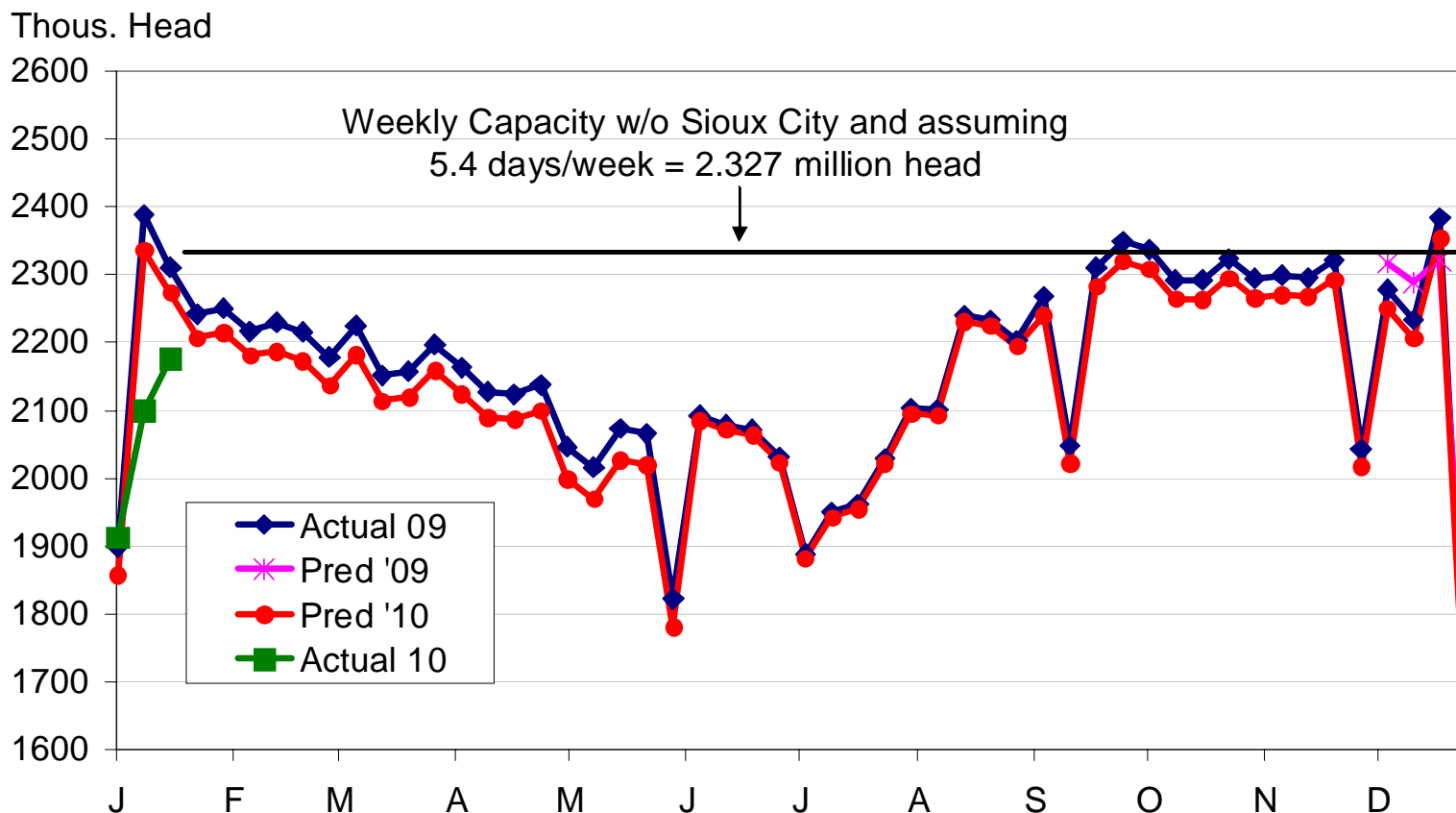
From information, knowledge



Capacity could still get a bit tight in Q4

FI HOG SLAUGHTER, WEEKLY

Based on USDA Hogs & Pigs Report, December '09



Impacts?

- One less plant is not the same as one less buyer/company
- Still many selling opportunities in the SD-Minn-IA-Neb area
- Indication is that marketing contracts will be honored – freight???
- Negligible price impact
- **MUST BE CAREFUL ABOUT OUTPUT!!!!**
- Why did this happen? Costs and MCOOL



This closure is MORE of the long-run impact

- For each 1 million head fewer market hogs produced in the U.S., there will be
 - 331 fewer jobs in pork production
 - 681 fewer jobs in pork processing
 - 1,142 fewer jobs in the rest of agriculture
 - **2,154 fewer jobs – mostly rural!**
- And we are in the process of reducing output by about 10 million head
 - **21,540 fewer jobs – mainly in rural areas**



To paraphrase the Clinton campaign:

**"IT'S STILL COSTS,
STUPID!"**

Paragon Economics, Inc.

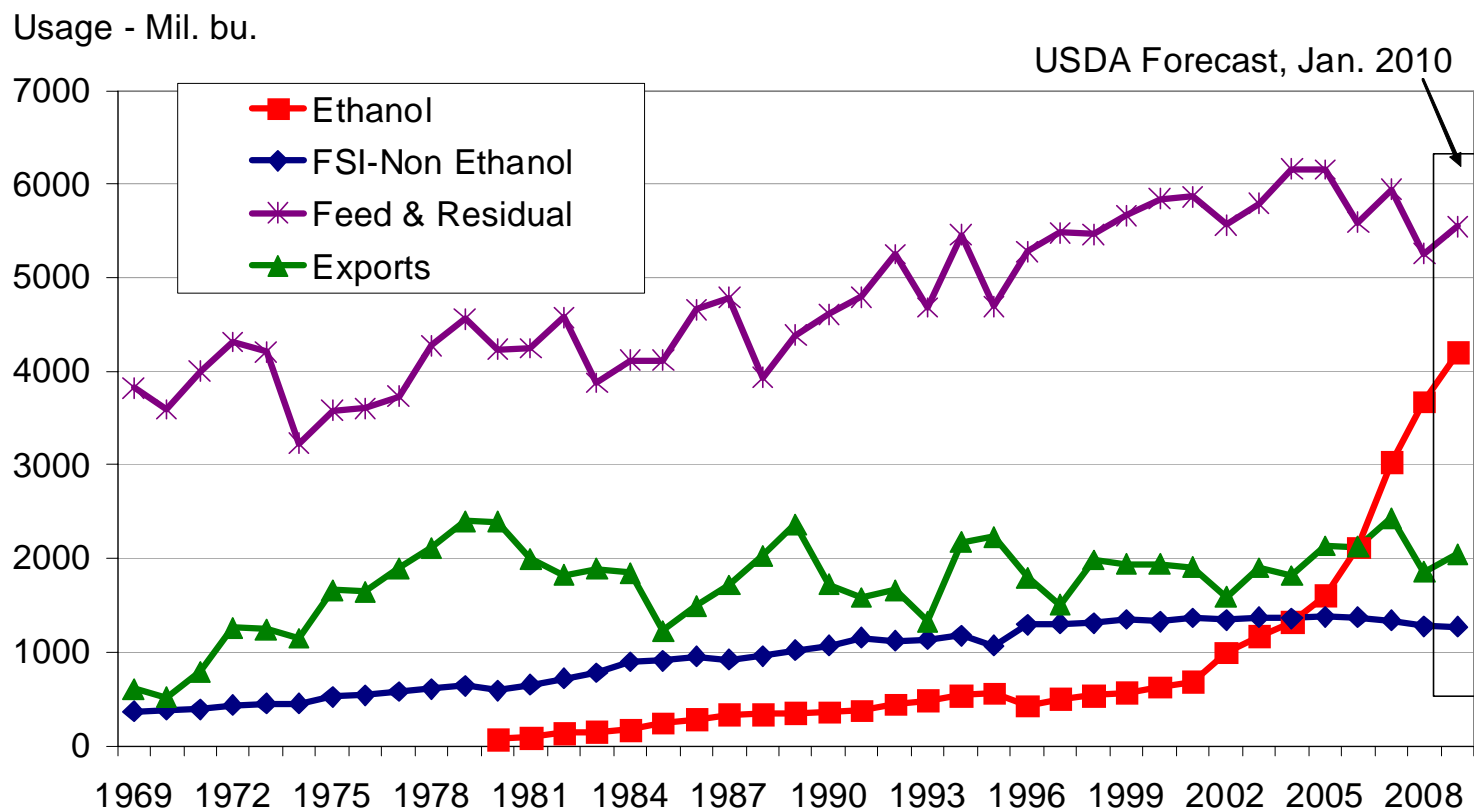
From information, knowledge



Corn usage for ethanol up to 4.2 bil. bu. ...

... +14.3% vs. '08; +525 mil. bu. more in '10

U.S. CORN PRODUCTION & USAGE BY CATEGORY



Paragon Economics, Inc.

From information, knowledge

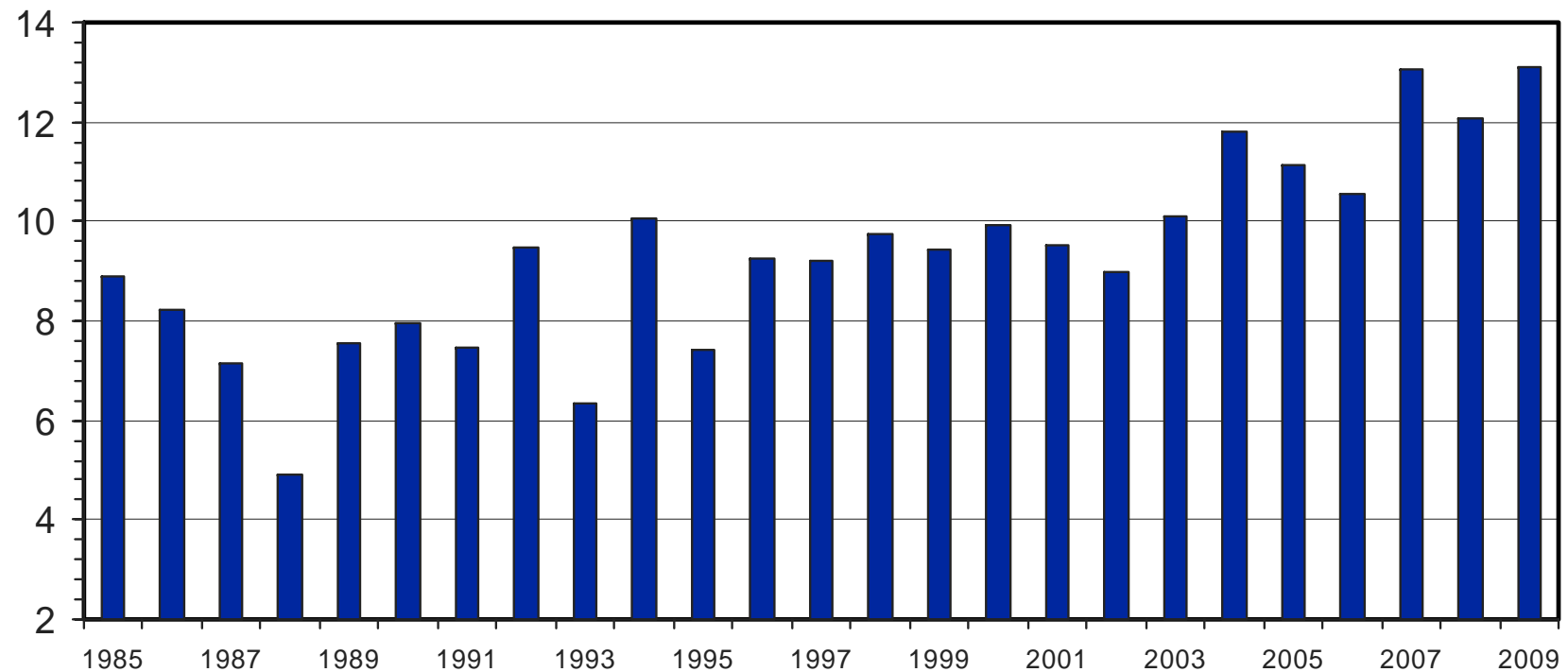


USDA now says we have a record corn crop ...

U S ANNUAL CORN PRODUCTION

Crop Year

Bil. Bushels



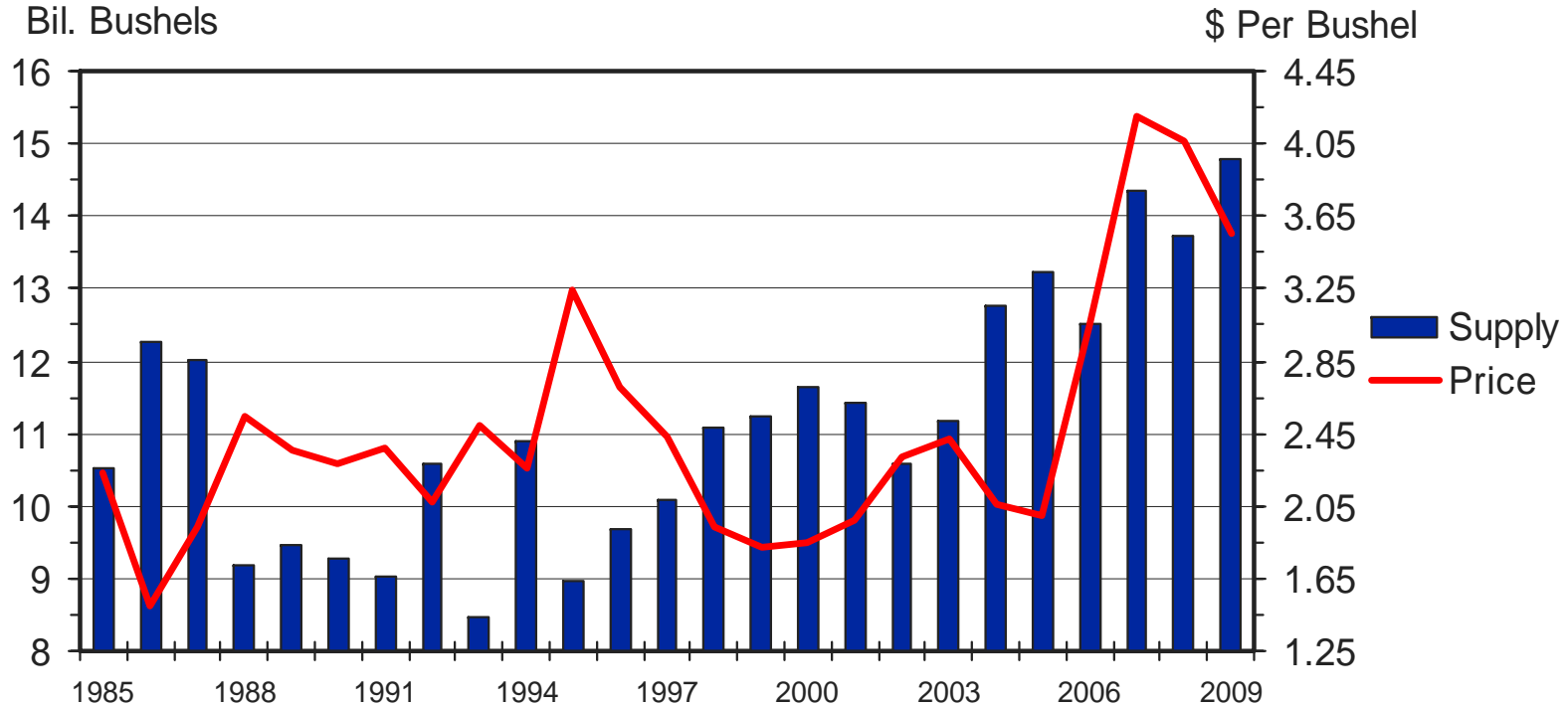
Paragon Economics, Inc.

From information, knowledge



Record-high availability, price down 19% but still near \$3.50/bu per USDA

U S TOTAL CORN SUPPLY AND PRICE Crop Year



Paragon Economics, Inc.

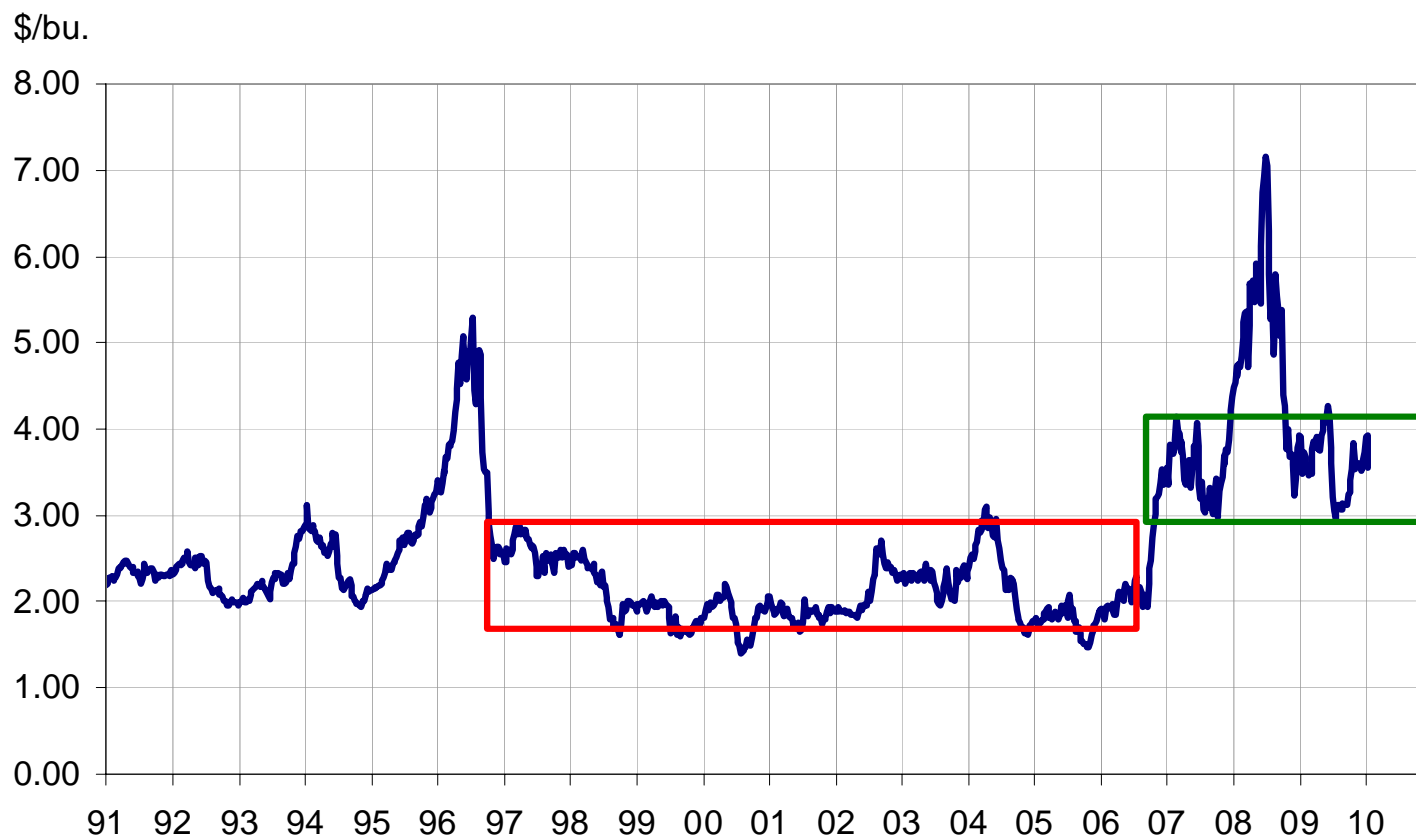
From information, knowledge



Cash corn remains in a new "normal" range ..

... But moved to the upper half since harvest

CASH CORN PRICE, OMAHA, WEEKLY



Source: USDA, Agricultural Marketing Service

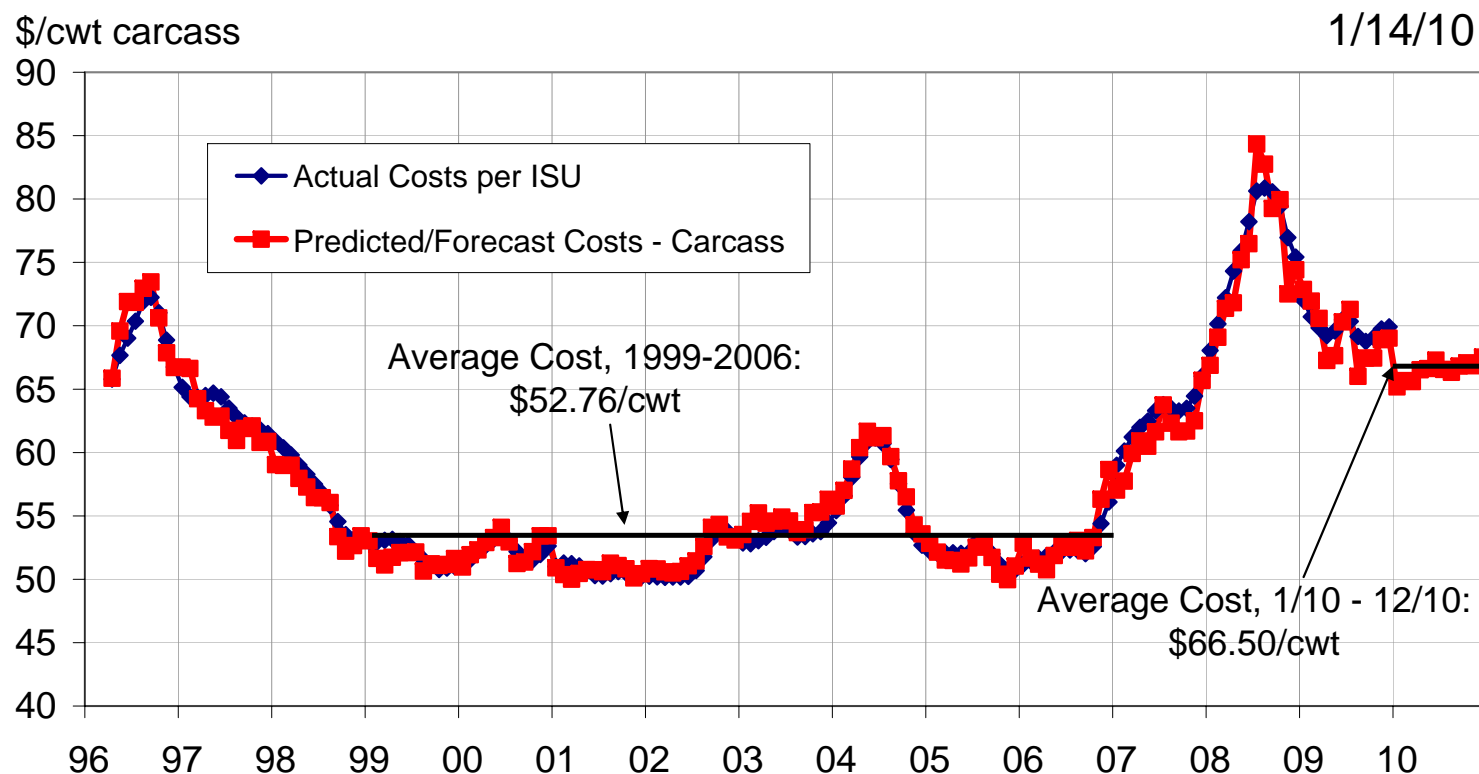
Paragon Economics, Inc.

From information, knowledge



Hog production costs, though below 2008 +26% from historical levels through 2010

ACTUAL & PREDICTED HOG PRODUCTION COSTS*



*Based on relationship between ISU Estimated Costs & Returns data and historic Omaha corn and Decatur soybean meal prices

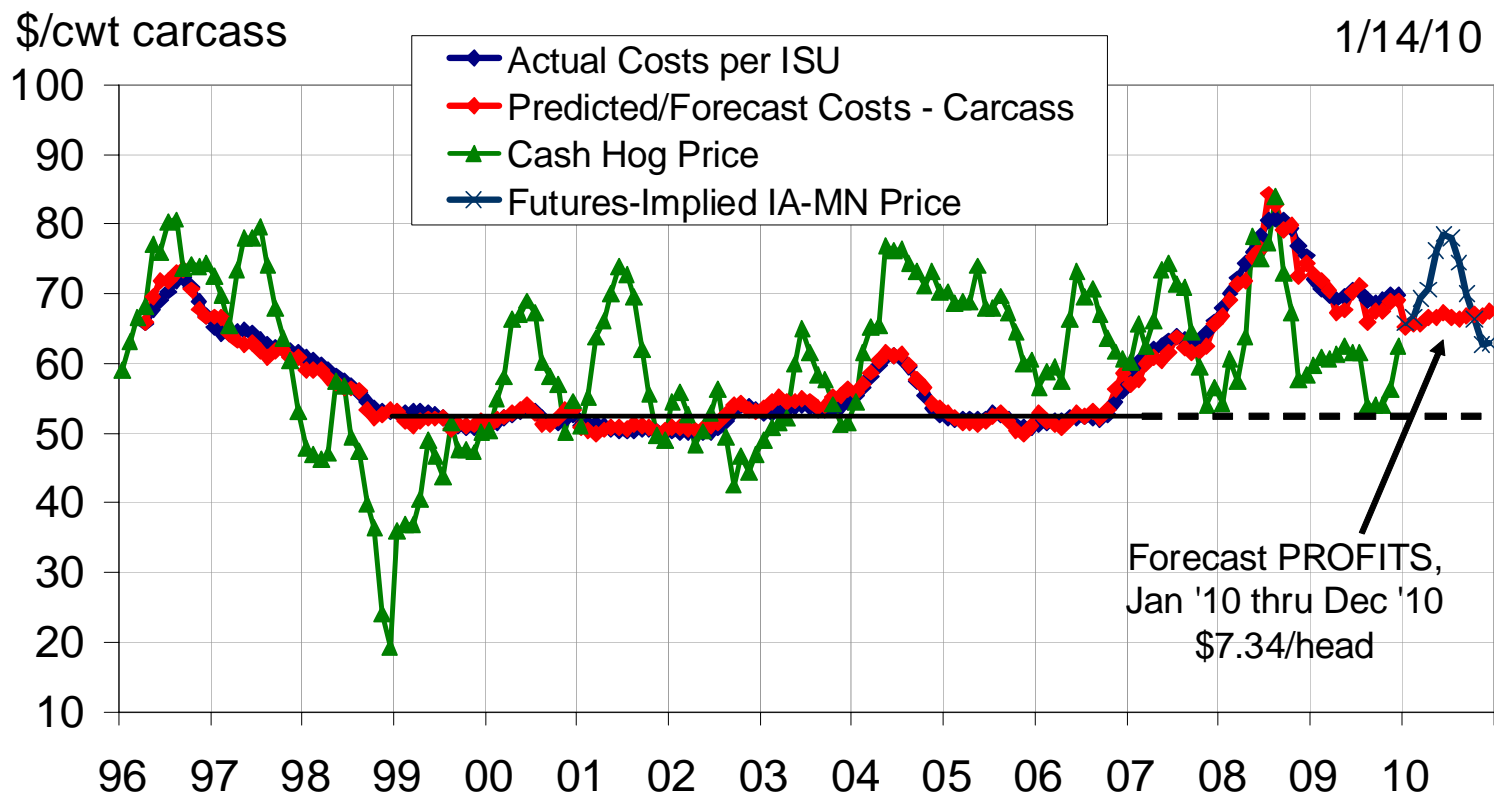
Paragon Economics, Inc.

From information, knowledge



We would have seen NO LOSSES thru '09 if not for 30% higher costs!

ACTUAL & PREDICTED HOG PRODUCTION COSTS* AND PRICES



*Based on relationship between ISU Estimated Costs & Returns data and historic Omaha com and Decatur soybean meal prices

Paragon Economics, Inc.

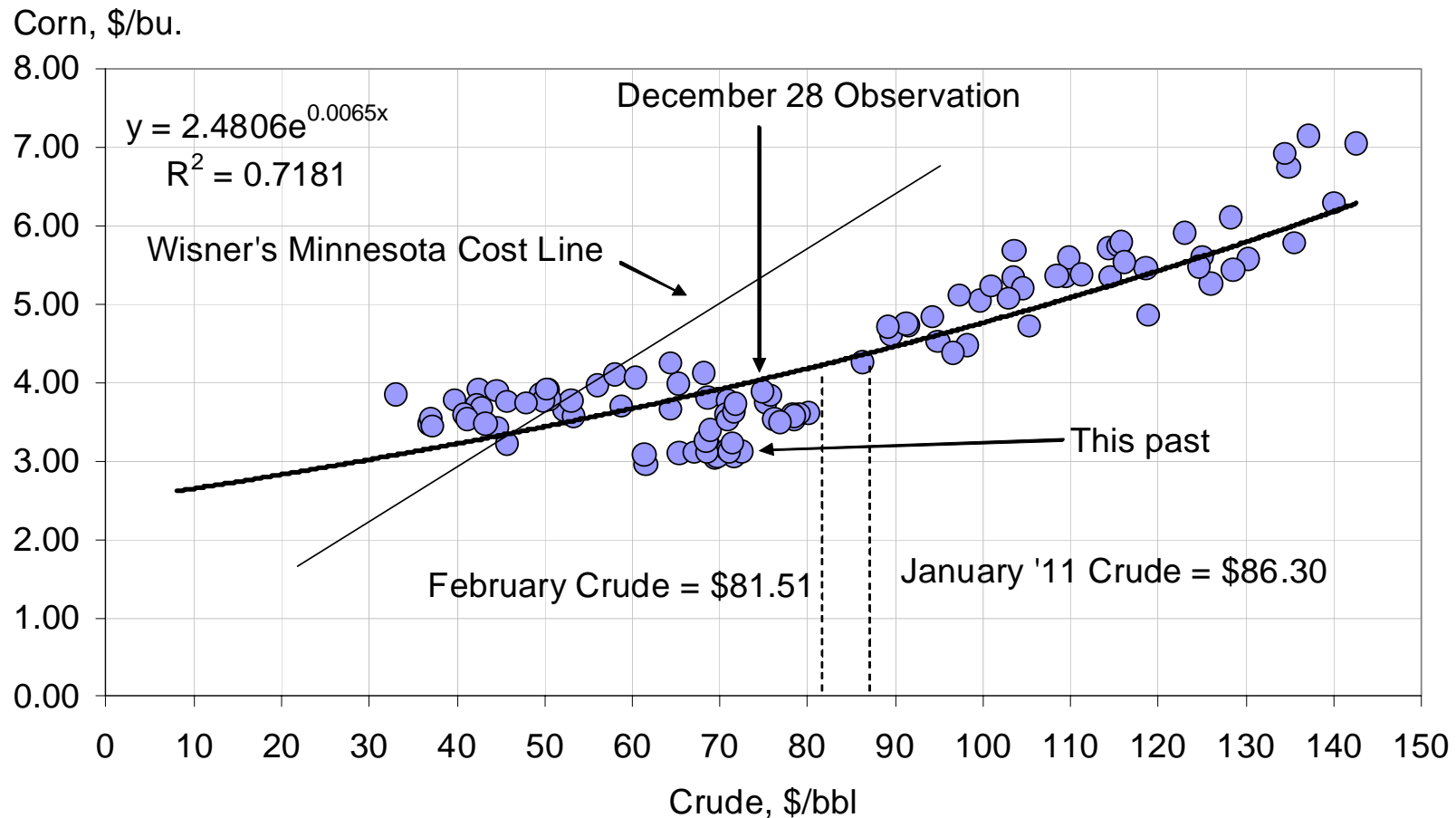
From information, knowledge



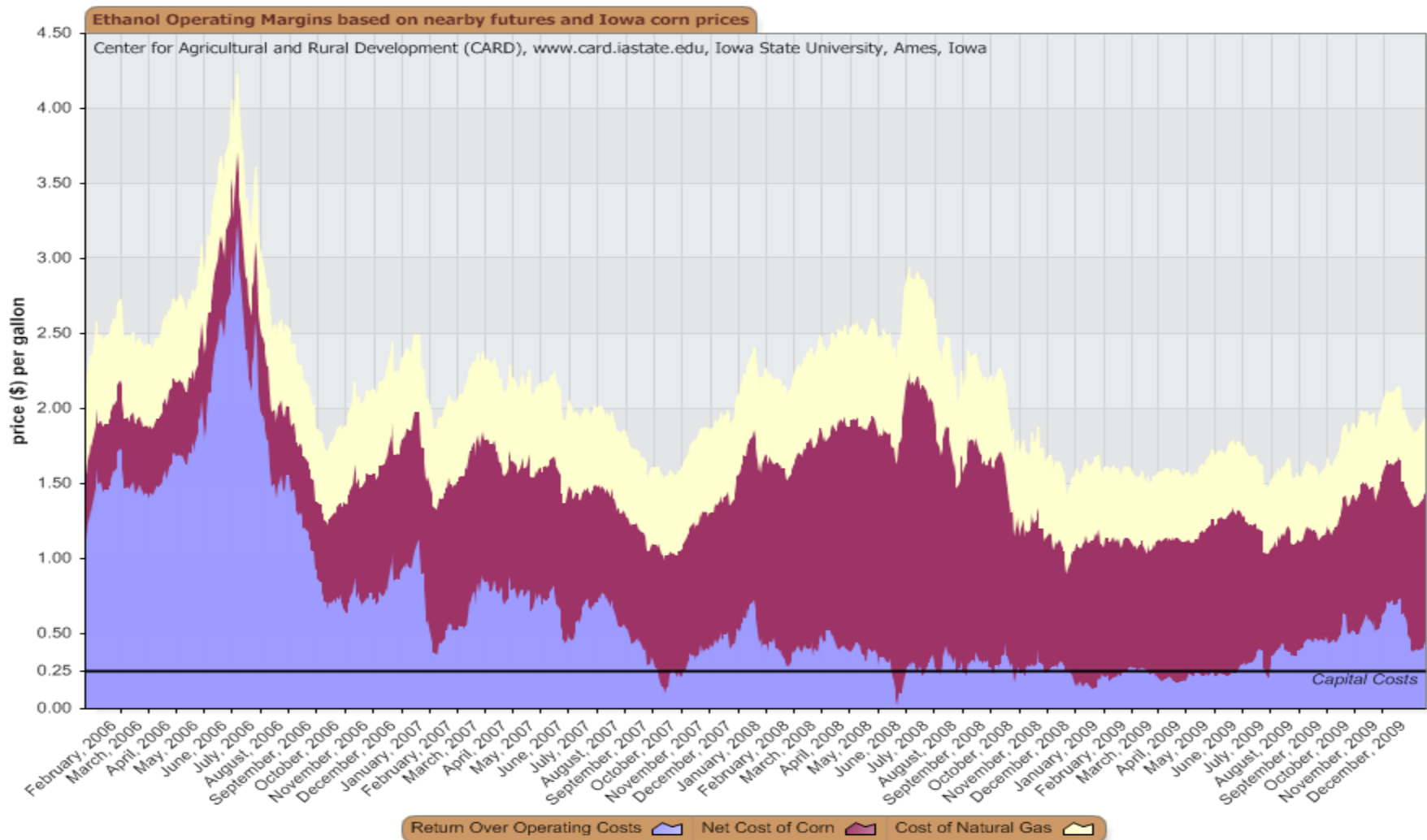
Corn:oil relationship implies \$4.10 to \$4.40

... So there is yet upside potential for corn

CASH CORN VS. CASH CRUDE



Positive ethanol margins will drive corn bids



Paragon Economics, Inc.

From information, knowledge



Ethanol production capacity is still growing

- As of October 22, 2009:
 - 193 plants operating -- capacity of 13.13 bil. gal./yr.
 - 13 more plants expanding or under construction – capacity of 1.43 bil. gal./yr.
- Current plants could use 4.66 bil. bushels -
 - All plants would use 5.2 bil. Bushels
- Already have enough to exceed E10 for all U.S. gasoline – thus the push for E15
 - RFS has promised more than the market can deliver!



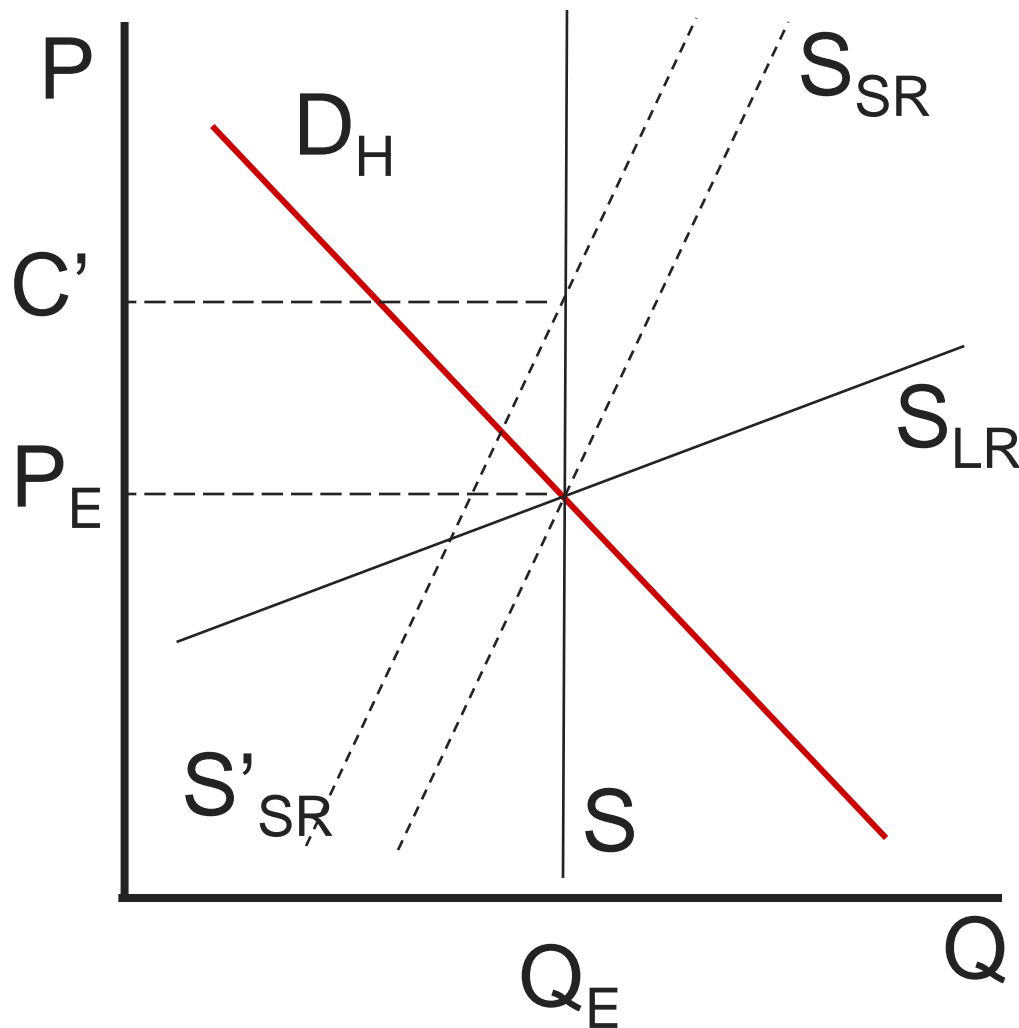
We can't "unring" the ethanol bell

- FAPRI/TAMU study – looked at 2011-2018
 - Removing the BTC lowers corn price 0.6%
 - Removing the tariff lowers corn price 2.8%
 - Removing the RFS lowers corn price 4.6%
 - Removing all three lowers corn price 13.1%
 - Will BTC & tariff be allowed to expire in '10?
- Bottom Line: The plants are in place – they will be operated by someone
- STILL NEED – an automatic RFS trigger for drought, especially if oil is cheap



If an input price rises – S_{LR} & S_{SR} shift ...

... But S cannot shift immediately



Revenue =

$$P_E * Q_E$$

Costs = $Q_E * C'$

Losses = $Q_E * (C' - P_E)$

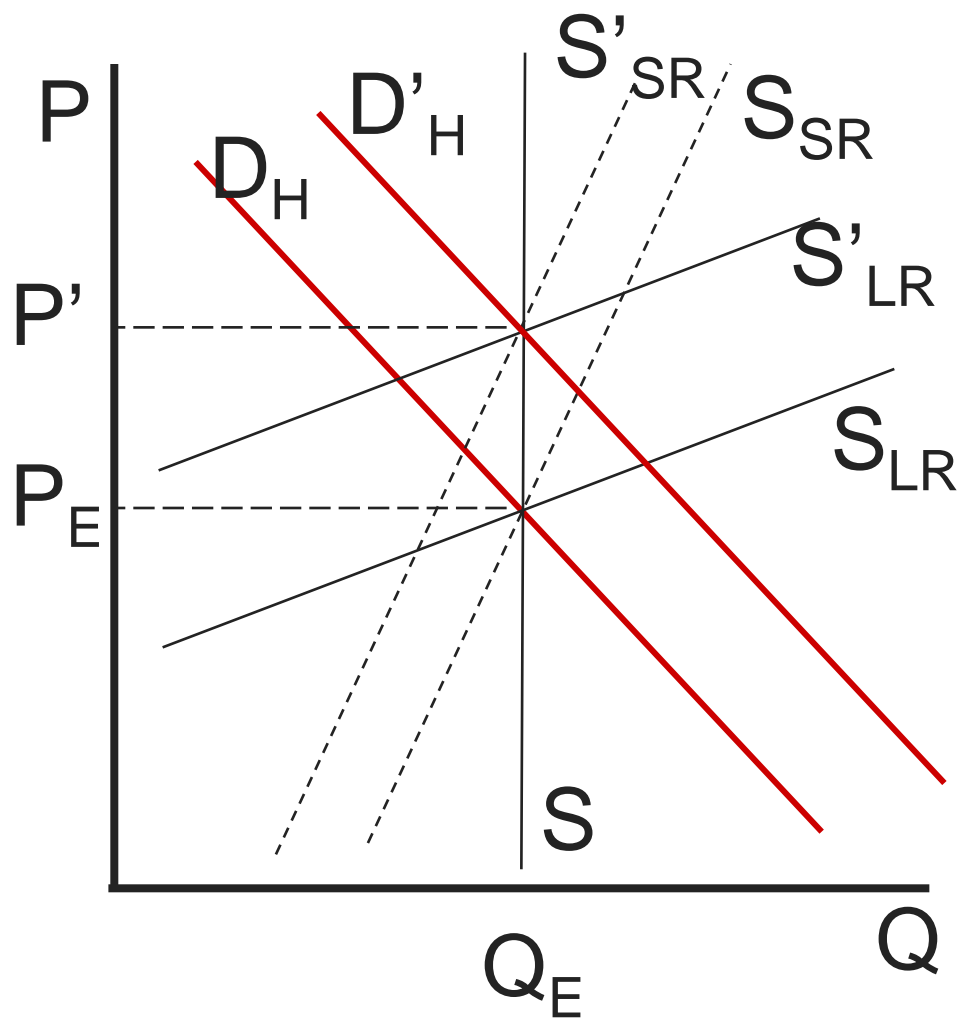
Paragon Economics, Inc.

From information, knowledge



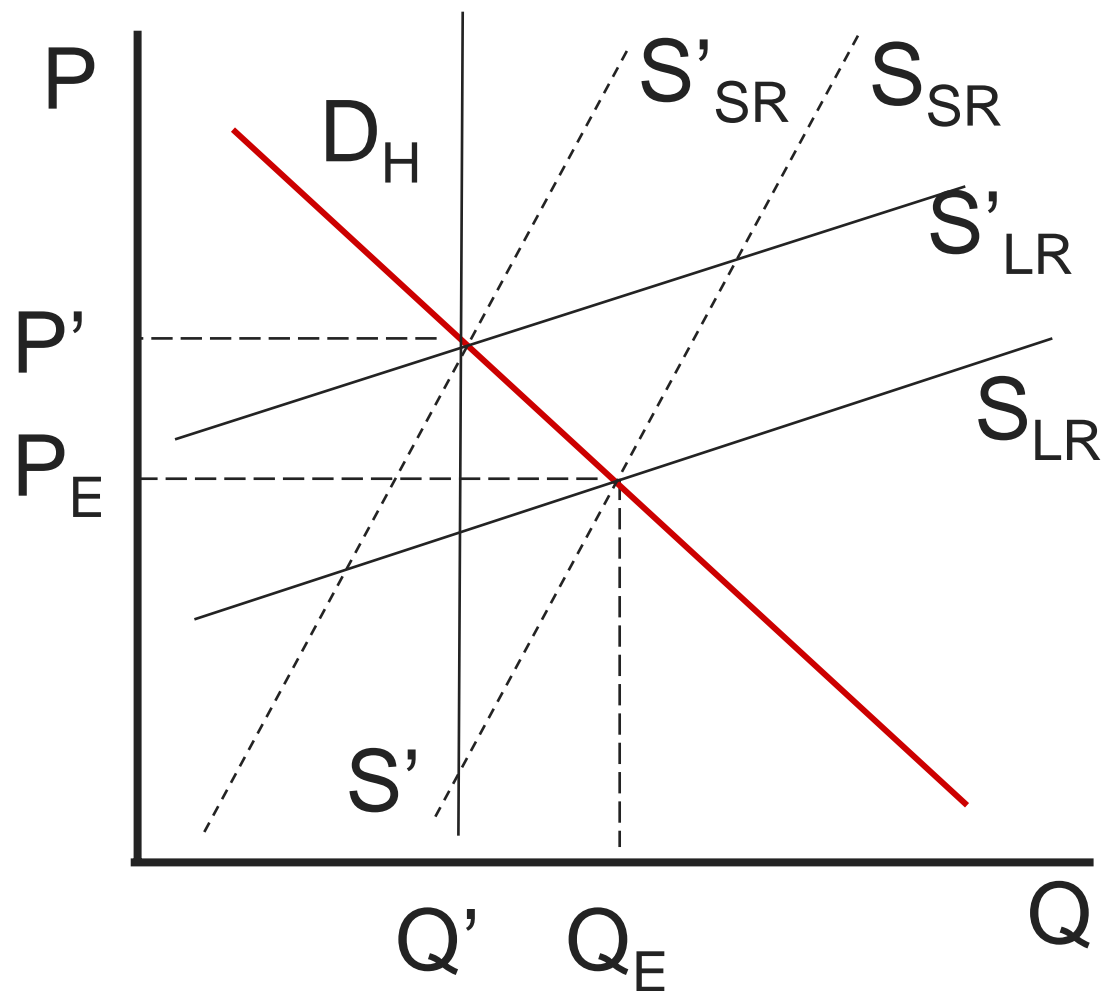
Solution 1: Raise demand

... but it is a SLOW process!



Solution 2: Reduce supply

.. Quicker but MUCH more painful



We are in the midst of that process now

- Chicken production is down 3.3% for '09
- Turkey production is down 6.0% for '09
- Pork production is down 1.8% for '09
- Beef production is down 2.7% for '09
- Chicken reductions are slowing and turkey will, too – shorter reaction time
- Pork reduction will get larger -- ??
- Beef reduction may not get larger but will last MUCH longer



So what can producers do about costs?

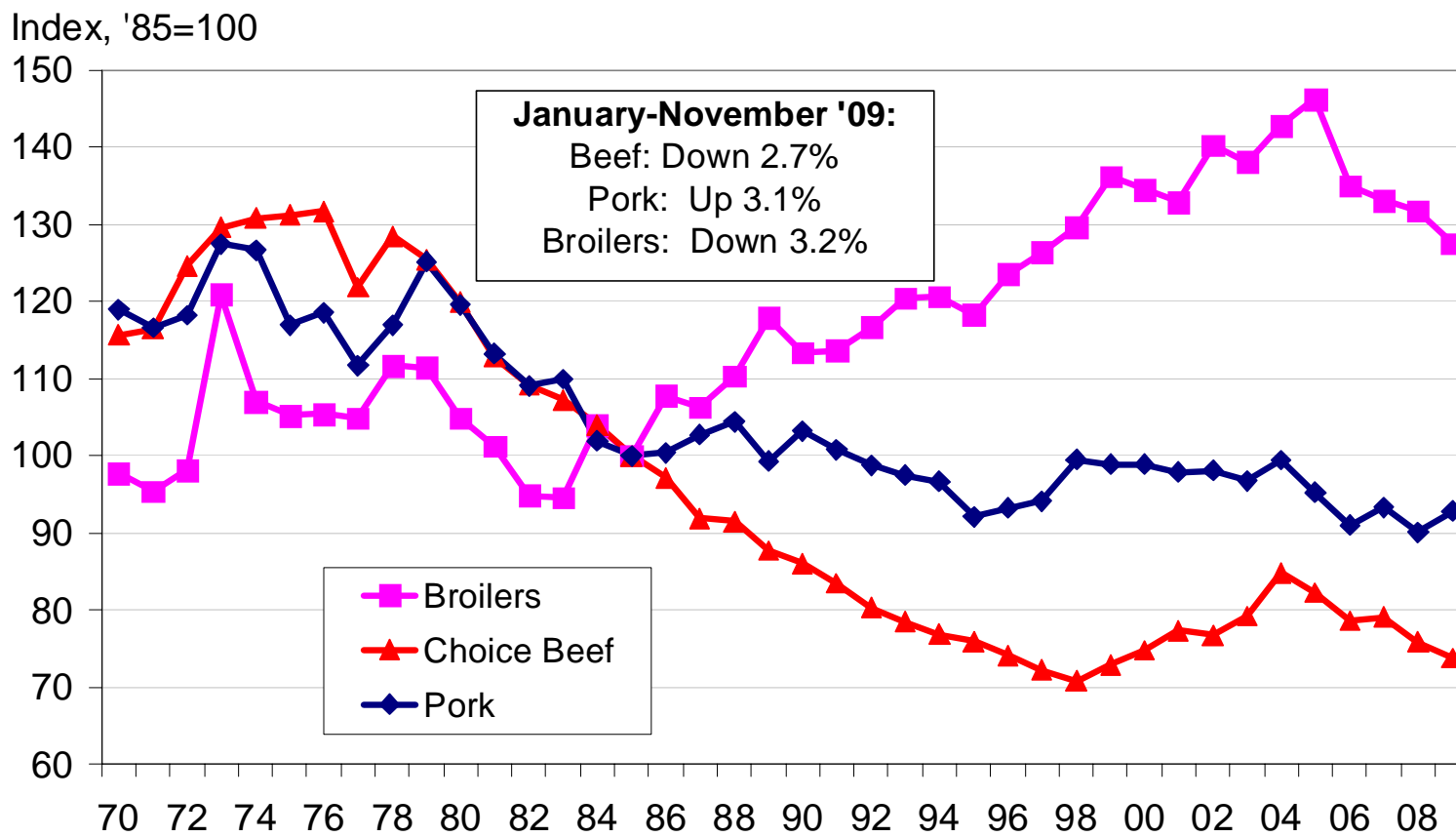
- Efficiency, efficiency, efficiency – Even higher incentives for productivity growth!
- Manage feed ingredient costs
 - Corn near \$3 will be CHEAP for next 5-8 yrs.
 - Ditto for meal <\$280 or \$290
- Backward integrate into grain production
 - go from specialized hogs to diversified
- Carry a “strategic reserve”
 - 2-3 months of corn to get through Aug & Sept some year – soon?
 - Soybean meal?



Domestic pork demand has grown in '09 ...

... But more important: The trends are BAD!

U.S. CONSUMER DEMAND INDEXES



Source: University of Missouri

Paragon Economics, Inc.

From information, knowledge



2008 exports: A confluence of positives...

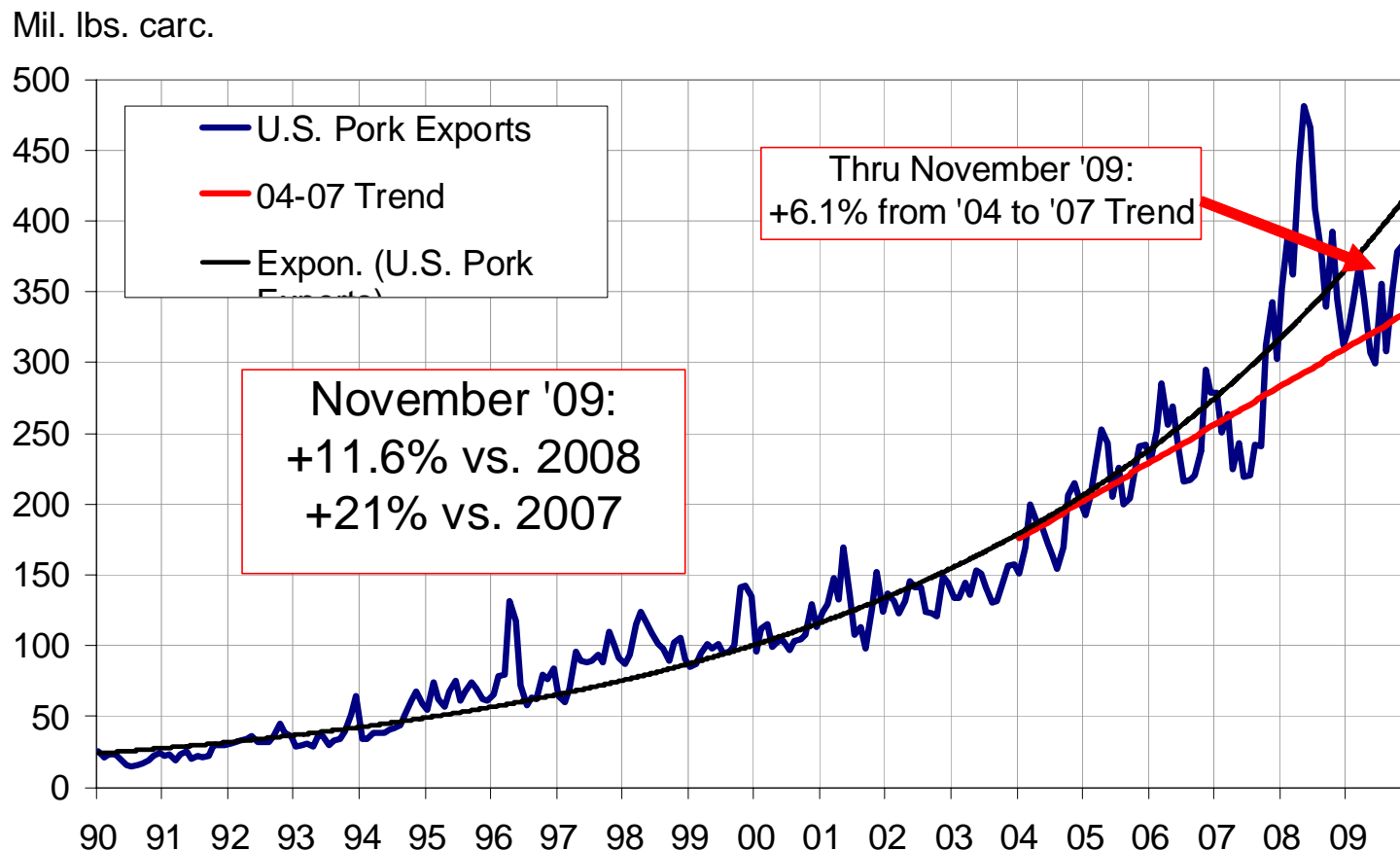
- Record-low U.S. dollar made U.S. product relatively cheap
- China/Hong Kong was the driver
 - Booming economy and rising middle class
 - Death losses in 2006-07 due to disease, earthquake, harsh winters = pork shortage
 - Olympic games
- Economic growth in other countries
- Strong Canadian dollar



Remarkably strong 2009 exports ...

... Given the obstacles we have faced!!!

U.S. PORK EXPORTS - MONTHLY



Paragon Economics, Inc.

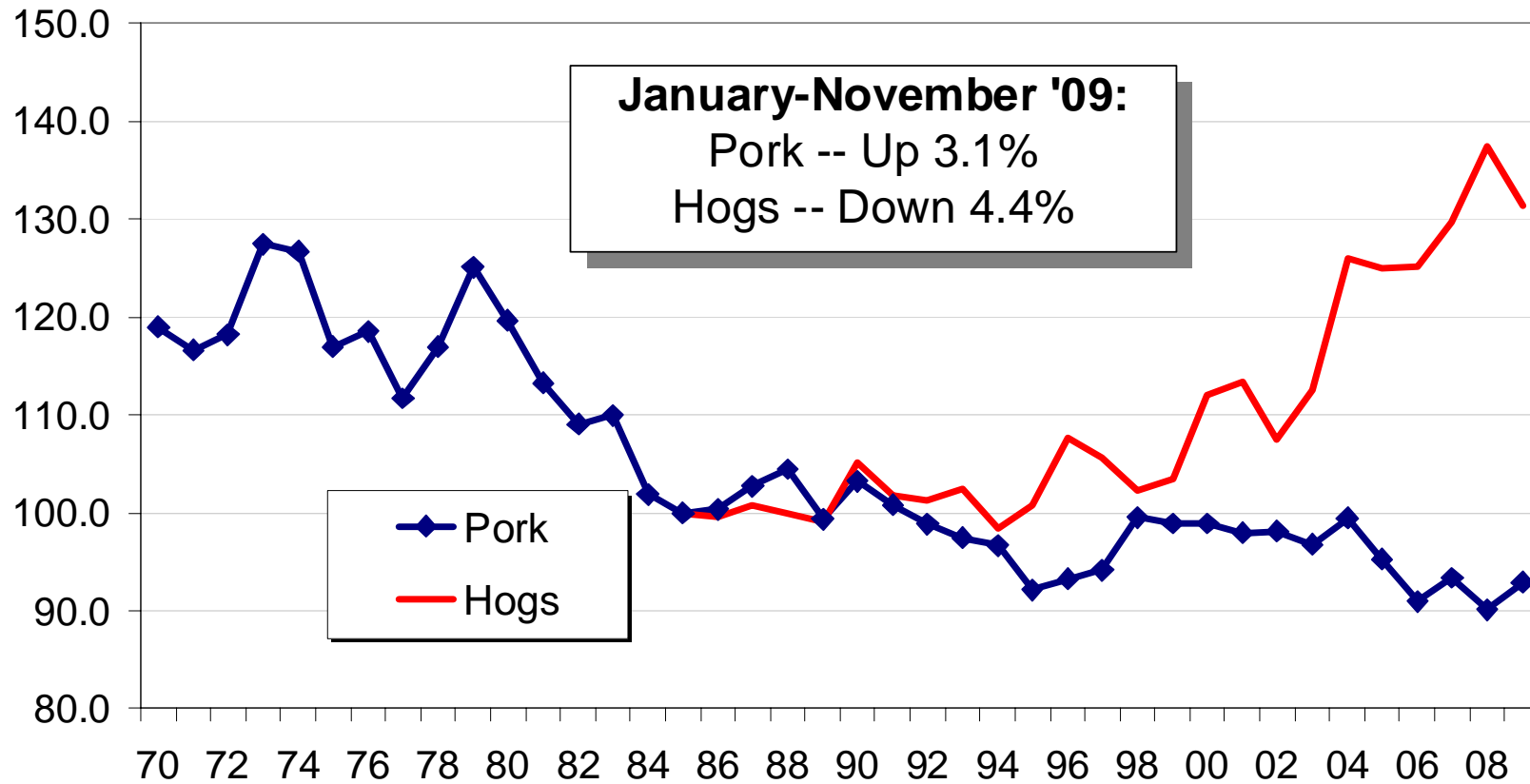
From information, knowledge



'09 exports pulled HOG demand down vs. '08

HOG & PORK DEMAND INDEXES

Index, '85=100



Source: University of Missouri

Paragon Economics, Inc.

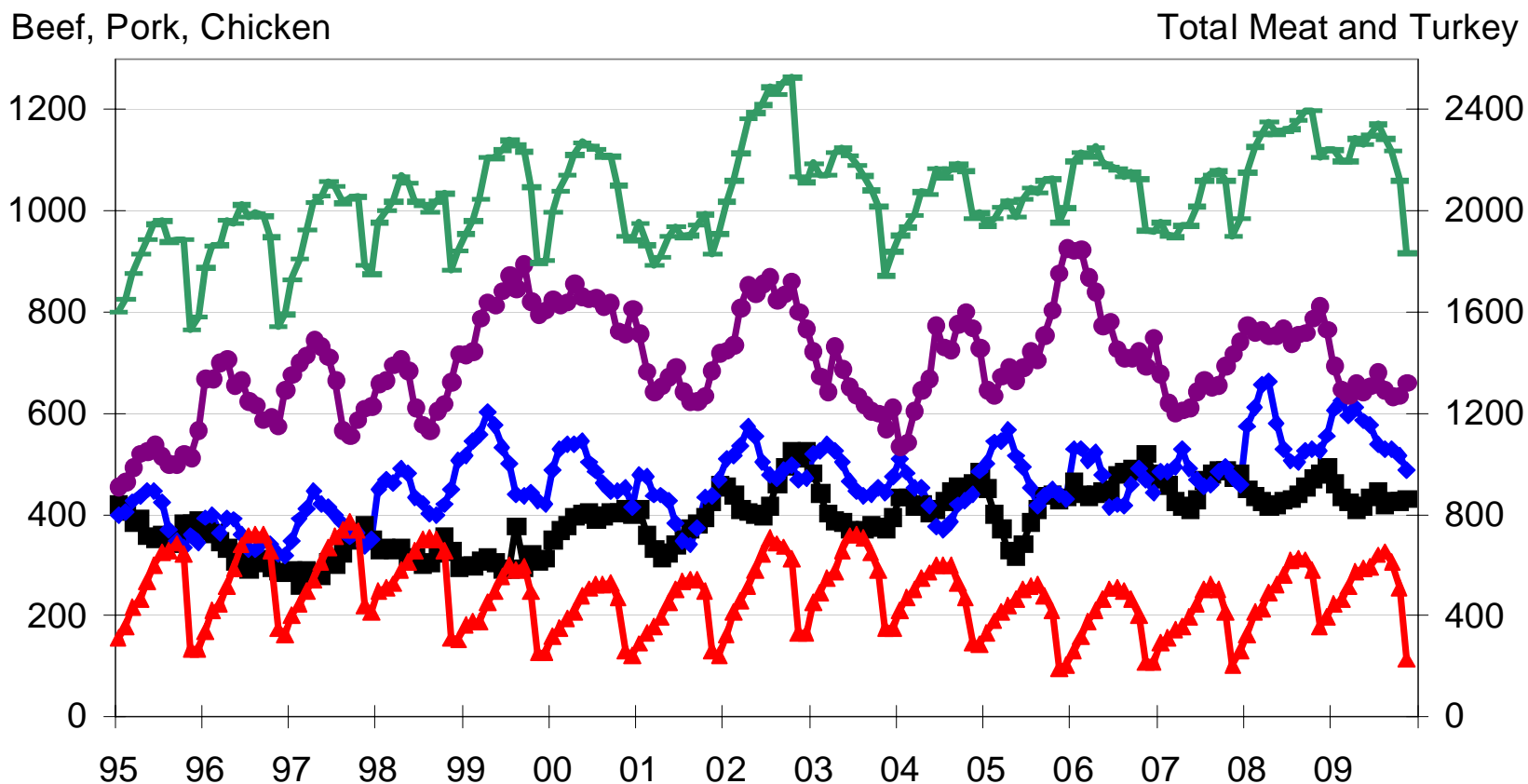
From information, knowledge



Frozen inventories have declined sharply!

MEAT IN COLD STORAGE

Million Lbs., Product Weight



Paragon Economics, Inc.

From information, knowledge



FP and MH imports are down sharply ...

... But are equal to the levels I expected

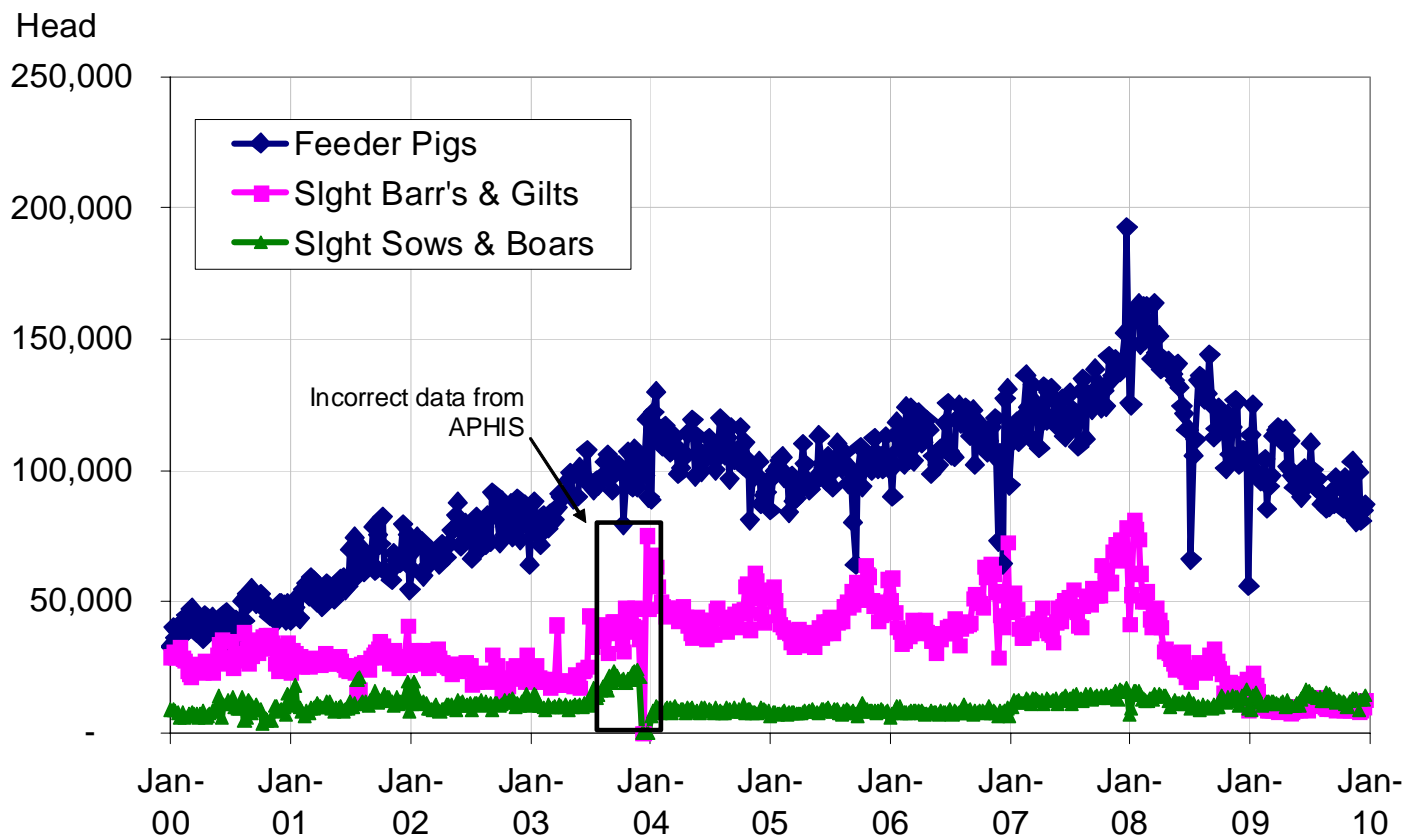
LIVE HOG IMPORTS FROM CANADA

MH: -68%

FP: -25%

SB: -0.6%

All: -31%



Paragon Economics, Inc.

From information, knowledge



Sept Hogs & Pigs was about as expected ...

...Evidence of turning the corner?

USDA Quarterly Hogs and Pigs Report

September 25, 2009

Category	2008	2009	2009 as Pct of 2008	Pre-Report Estimates	Actual - Estimate
Inventories on September 1 ¹					
All hogs and pigs	68,196	66,626	97.7	98.2	-0.5
Kept for breeding	6,061	5,874	96.9	97.4	-0.5
Kept for market	62,135	60,752	97.8	98.3	-0.5
Under 60 lbs.	22,683	21,837	96.3	98.3	-2.0
60-119 lbs.	15,397	15,078	97.9	98.3	-0.4
120-179 lbs.	12,855	12,674	98.6	98.8	-0.2
180 lbs. and over	11,201	11,163	99.7	99.0	0.7
Farrowings ²					
June-Aug sows farrowed	3,075	2,966	96.5	96.8	-0.3
Sep-Nov Intentions	3,028	2,935	96.9	97.3	-0.4
Dec-Feb Intentions	3,024	2,930	96.9	96.9	0.0
June-Aug Pig Crop ¹	29,240	28,772	98.4	98.1	0.3
June-Aug pigs saved per litter	9.51	9.70	102.0	101.4	0.6

¹Thousand head

²Thousand litters

Paragon Economics, Inc.

From information, knowledge



Then came December's report ...

USDA Quarterly Hogs and Pigs Report

December 30, 2009

Category	2008	2009	2009 as Pct of 2008	Pre-Report Estimates	Actual - Estimate
Inventories on December 1 ¹					
All hogs and pigs	67,148	65,807	98.0	97.6	0.4
Kept for breeding	6,062	5,850	96.5	96.6	-0.1
Kept for market	61,087	59,957	98.2	97.7	0.5
Under 50 lbs.	19,428	19,085	98.2	98.1	0.1
50-119 lbs.	17,396	17,062	98.1	97.9	0.2
120-179 lbs.	12,731	12,529	98.4	97.7	0.7
180 lbs. and over	11,533	11,282	97.8	97.7	0.1
Farrowings ²					
Sep-Nov sows farrowed	3,028	2,974	98.2	96.9	1.3
Dec-Feb Intentions	3,011	2,954	98.1	96.8	1.3
Mar-May Intentions	3,018	2,935	97.2	97.0	0.2
Sep-Nov Pig Crop1	28,771	28,833	100.2	98.8	1.4
Sep-Nov pigs saved per litter	9.50	9.70	102.1	101.9	0.2

¹Thousand head

²Thousand litters

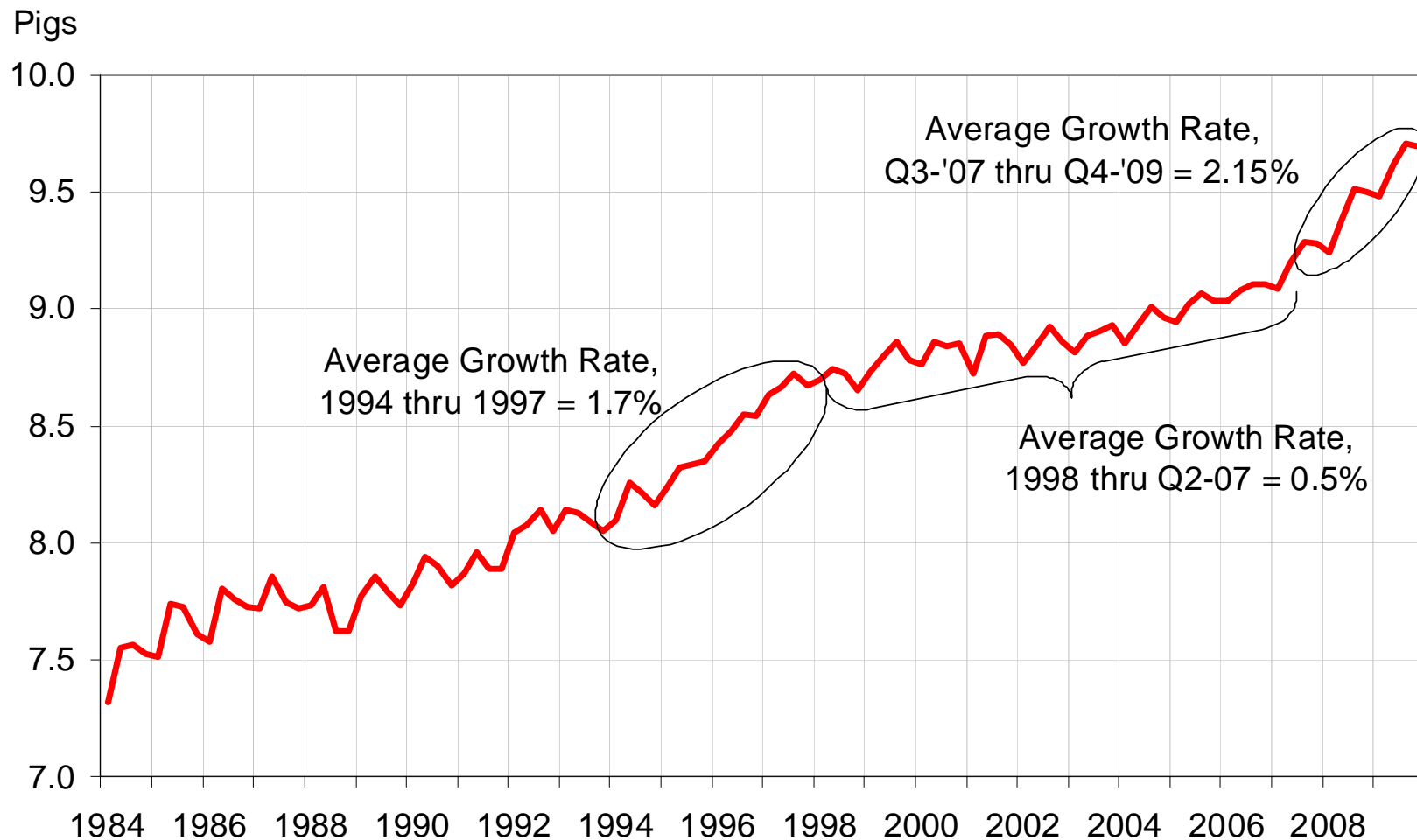
Paragon Economics, Inc.

From information, knowledge



How long can productivity growth continue?

PIGS SAVED PER LITTER, U.S.



Paragon Economics, Inc.

From information, knowledge

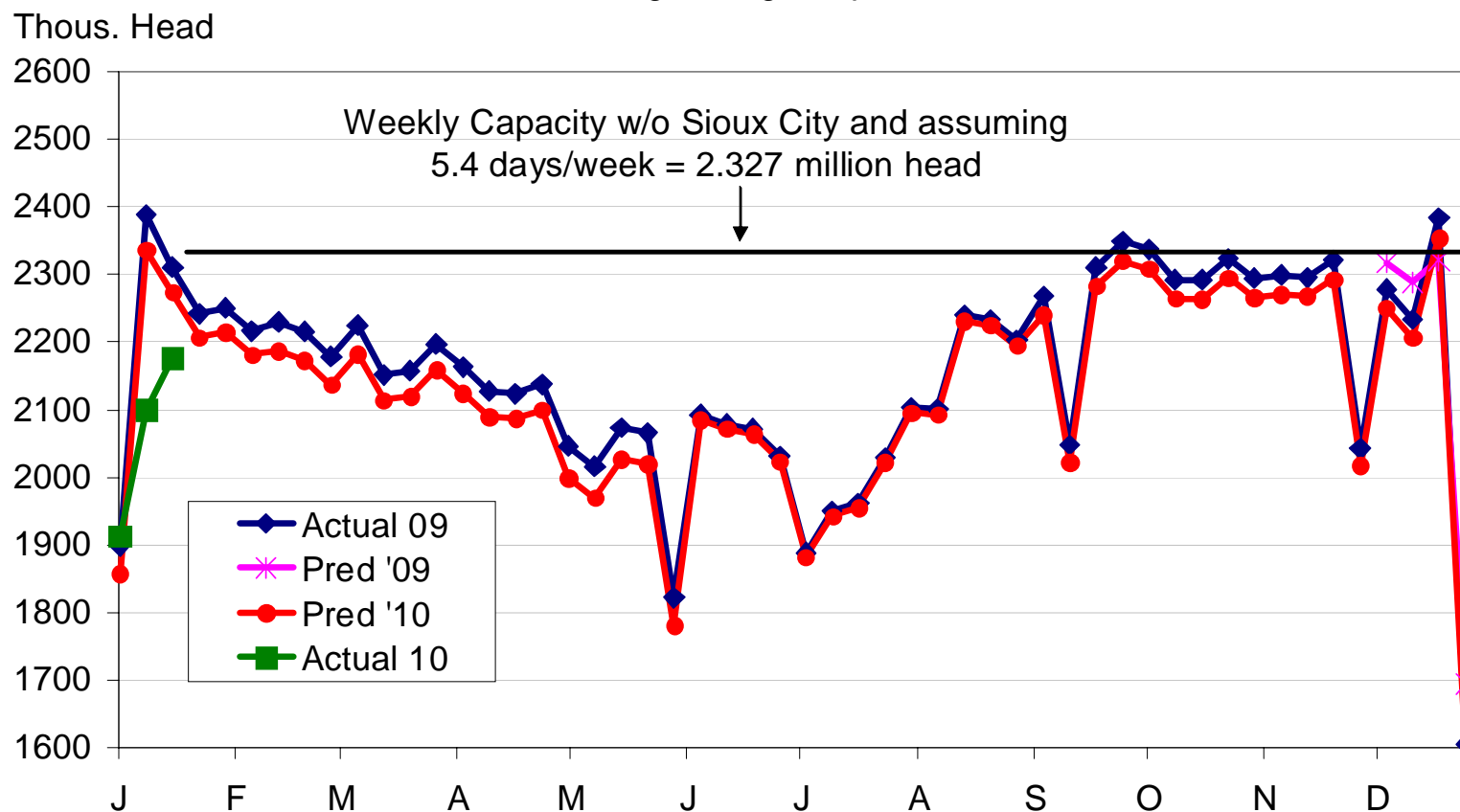


September H&P says '10 supplies ...

... Will be VERY close to '09 supplies

FI HOG SLAUGHTER, WEEKLY

Based on USDA Hogs & Pigs Report, December '09



Paragon Economics, Inc.

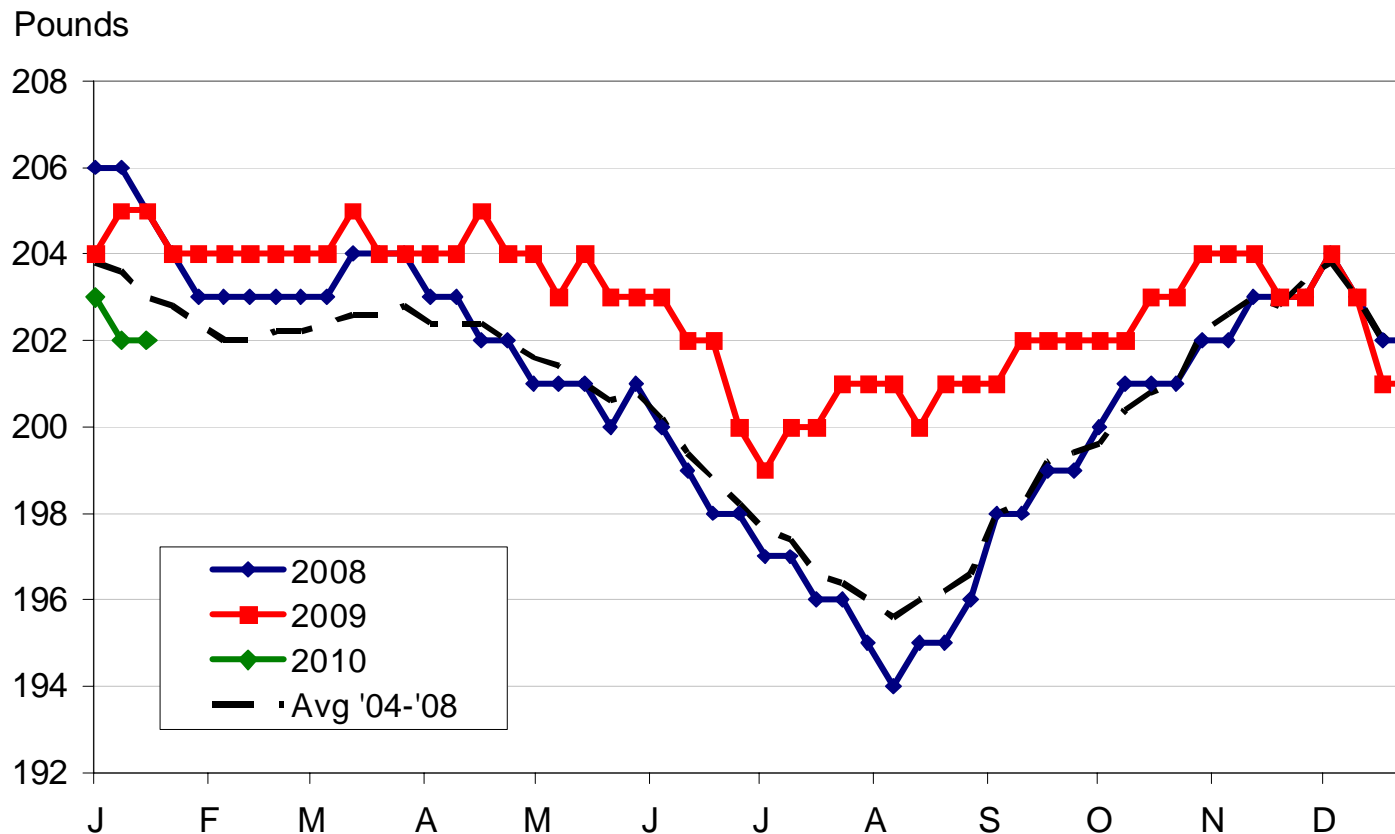
From information, knowledge



High weights added 1% to '09 prod ...

... But I expect 2010 weights to be LOWER

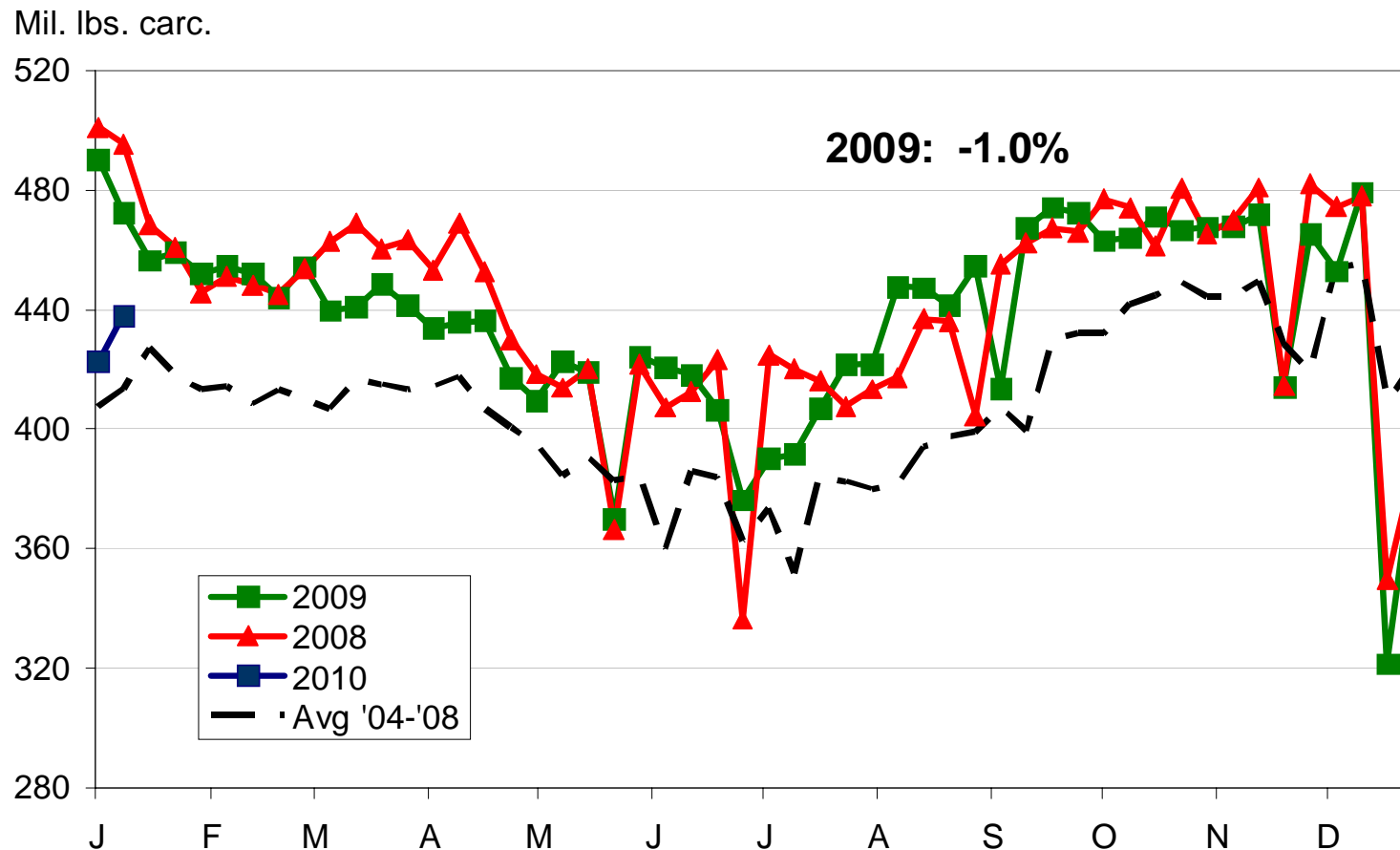
FI CARCASS WEIGHTS, HOGS



Net result: '09 pork prod only 0.9% lower

... And YTD '10 is down over 10%

FI PORK PRODUCTION, WEEKLY



Paragon Economics, Inc.

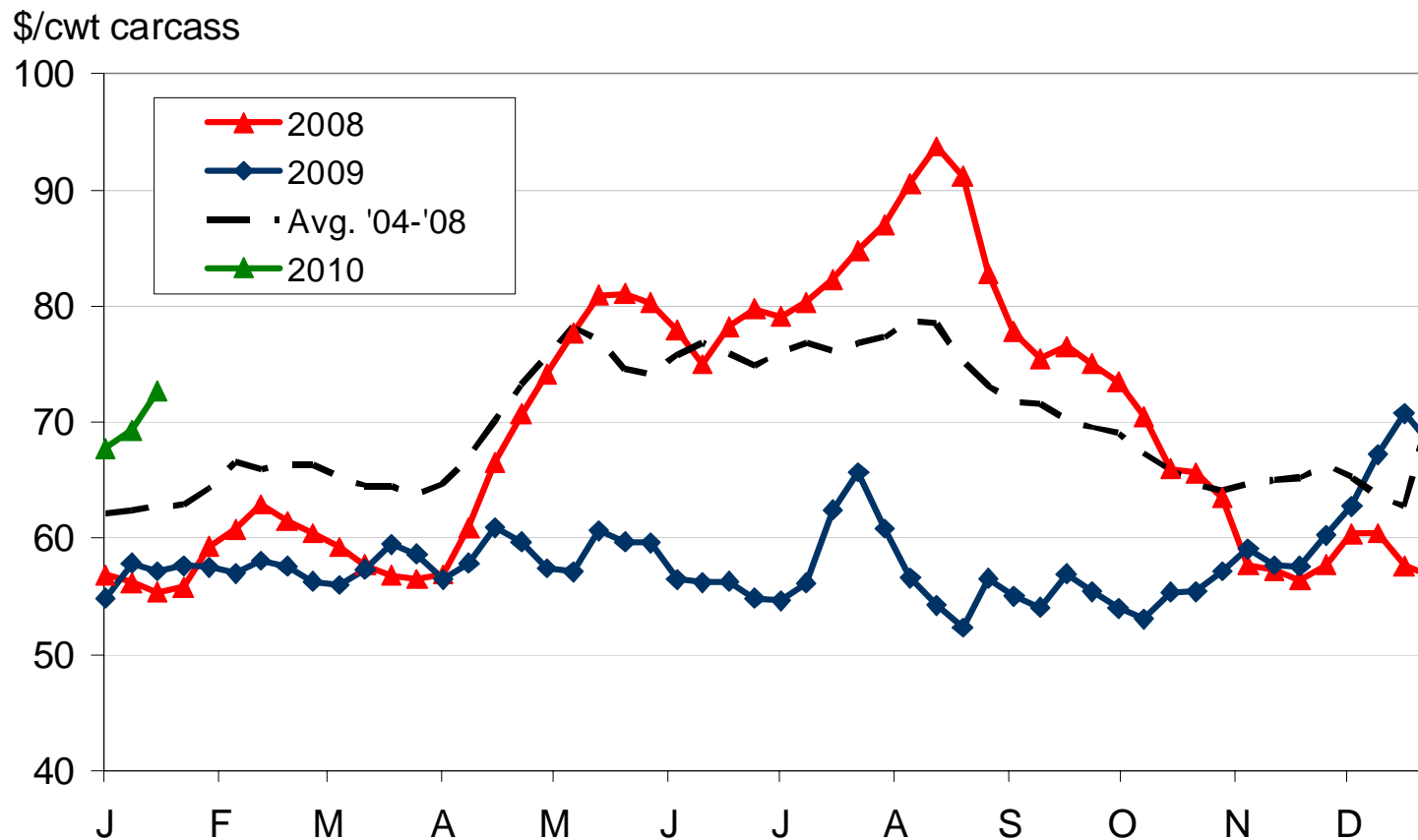
From information, knowledge



First cutout rally in Oct-Nov since '98 ...

... A gain of nearly \$18/cwt in Q4-09!

51-52% LEAN, PORK CUTOUT VALUE



Paragon Economics, Inc.

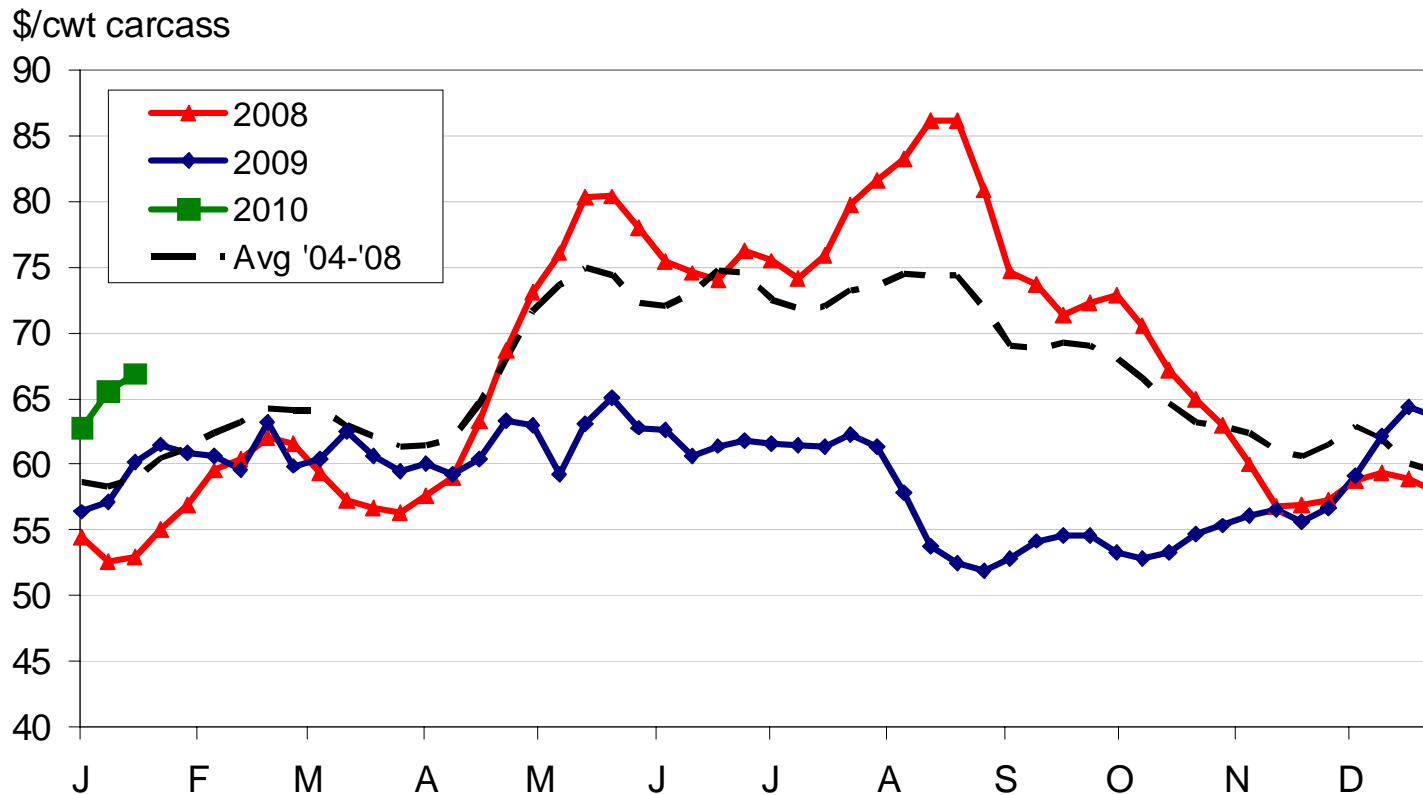
From information, knowledge



New packer discipline (??) means ...

... Hog price changes have matched cutout

NATIONAL WTD. AVG. NET PRICE
ALL PURCHASE METHODS



Paragon Economics, Inc.

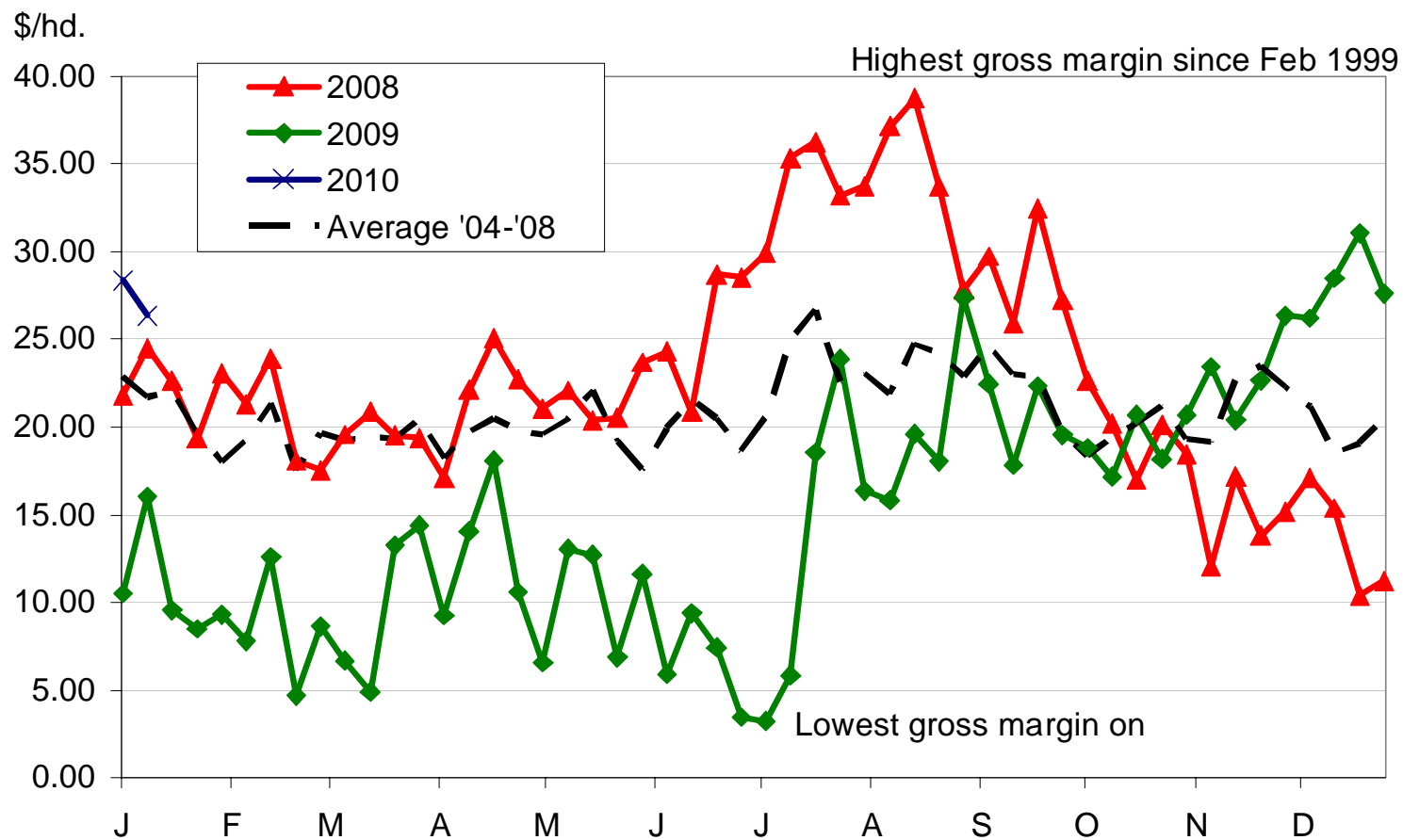
From information, knowledge



Packer margins: Very good in December ..

... And should support higher hog prices

PORK PACKERS' EST'D GROSS MARGIN



Paragon Economics, Inc.

From information, knowledge

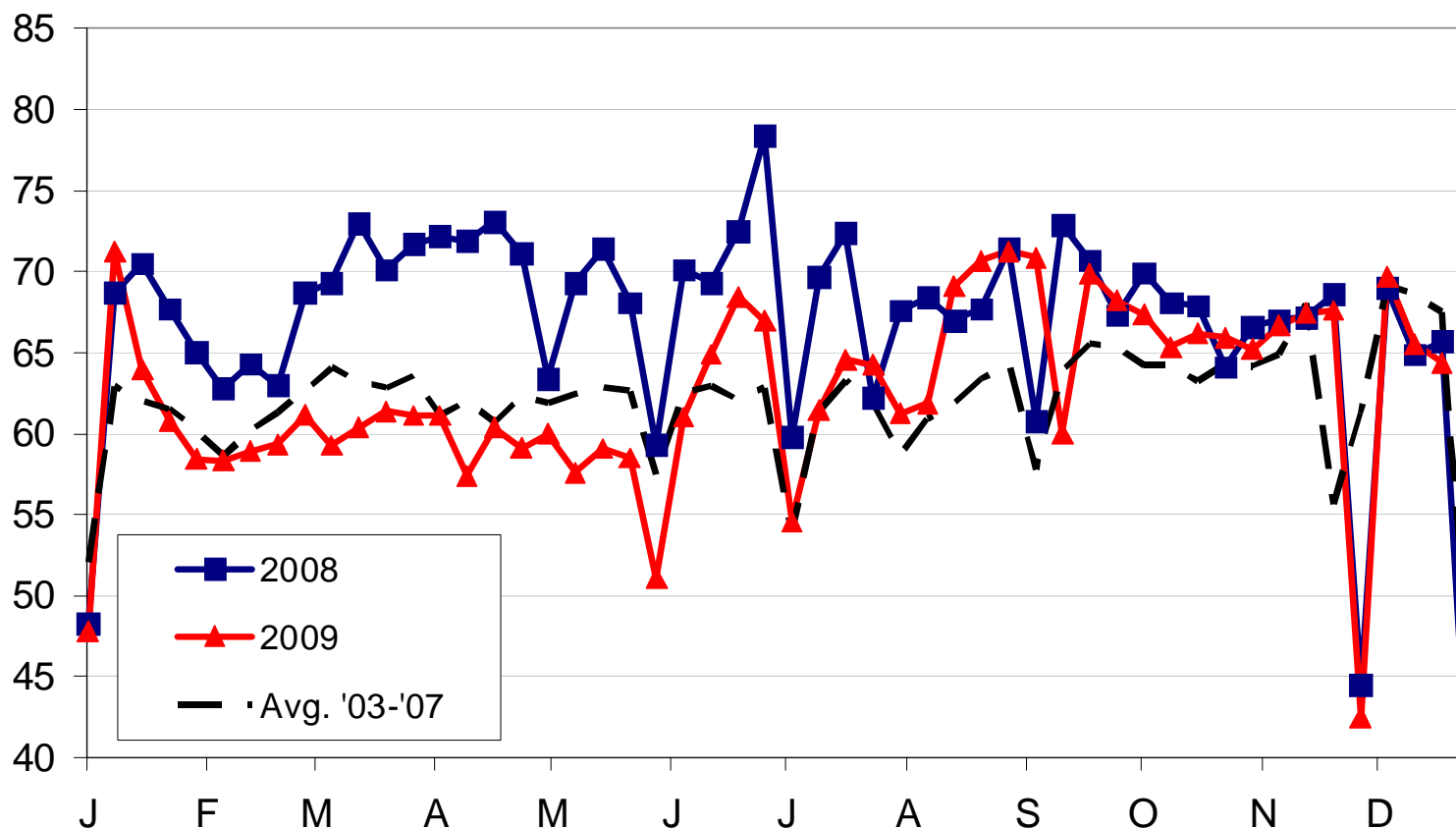


Sow slaughter back below 70k/wk....

... Though a higher percent are U.S. sows

U.S. SOW SLAUGHTER

Thousand Hd.



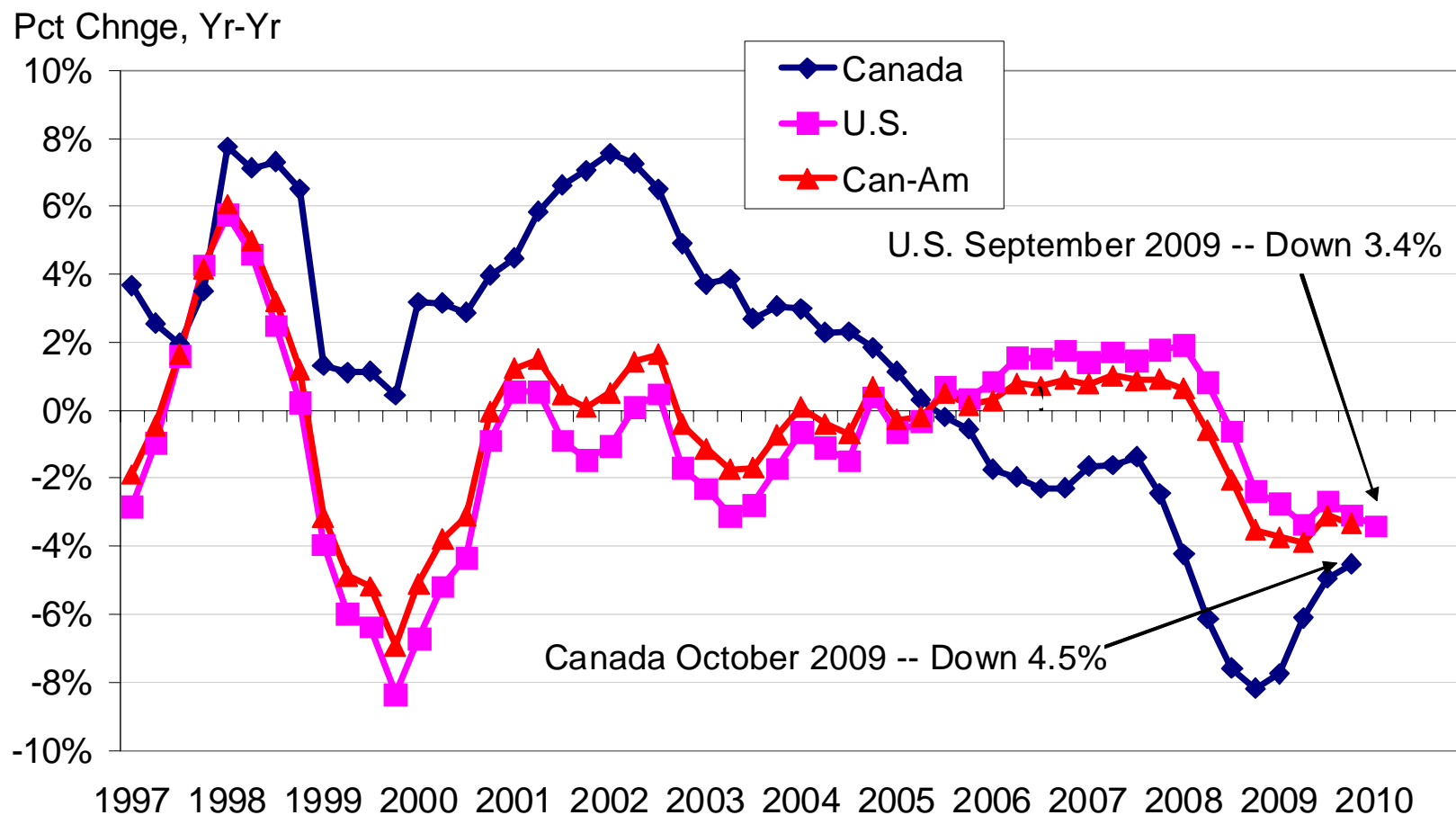
Paragon Economics, Inc.

From information, knowledge



U.S. herd reduction sped up a bit in Dec ...

SWINE BREEDING HERDS -- US & Canada



How much of a reduction do we need?

- We have to make up for:
 - ~7-8% productivity increase of circo vac's
 - 20-30% higher costs.
- Need a 12% reduction of the US/Canada sow herd from Oct '07 peak of 7.752 mil.
 - Would put US/Canada at 6.82 million head
 - Canada is already at 1.38 million and will cut farther – to 1.2 mil. or so
 - U.S. needs to go to **5.5 to 5.6 million**
- Dec 1: 5.856 million, down 6.1% vs. '07

Paragon Economics, Inc.

From information, knowledge



Why such a slow reaction?

- Producers WANT to be in this business – it has been good to them!
- Producers believed 2008 was the new reality???

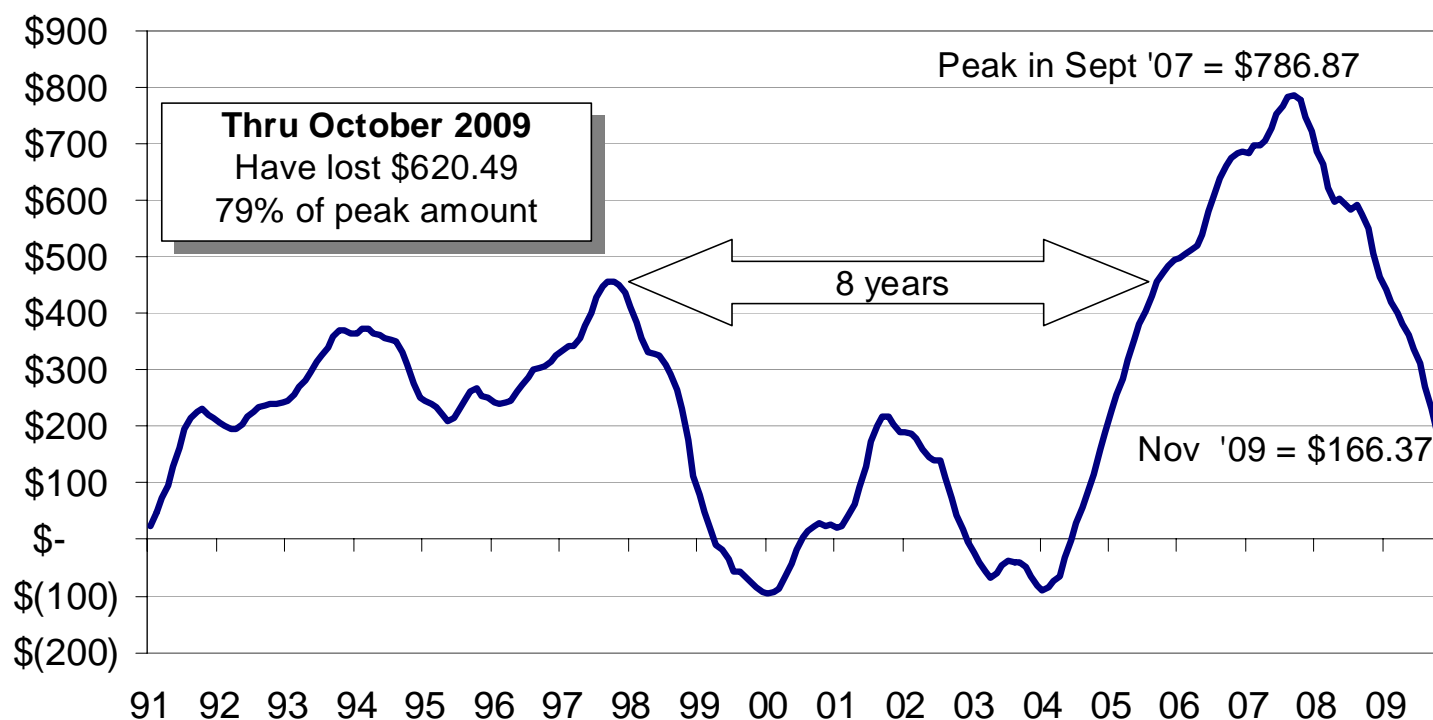


Producer equity was record high in '07 ...

... but is now down by two-thirds!

ACCUMULATED PROFITS IOWA FARROW-TO-FINISH OPERATIONS

(Sum of the profits from selling one pig per month since January 1991)



Source: Paragon Economics, Inc. using data from Estimated Costs and Returns, Dr. John Lawrence, Department of Economics, Iowa State University

Paragon Economics, Inc.

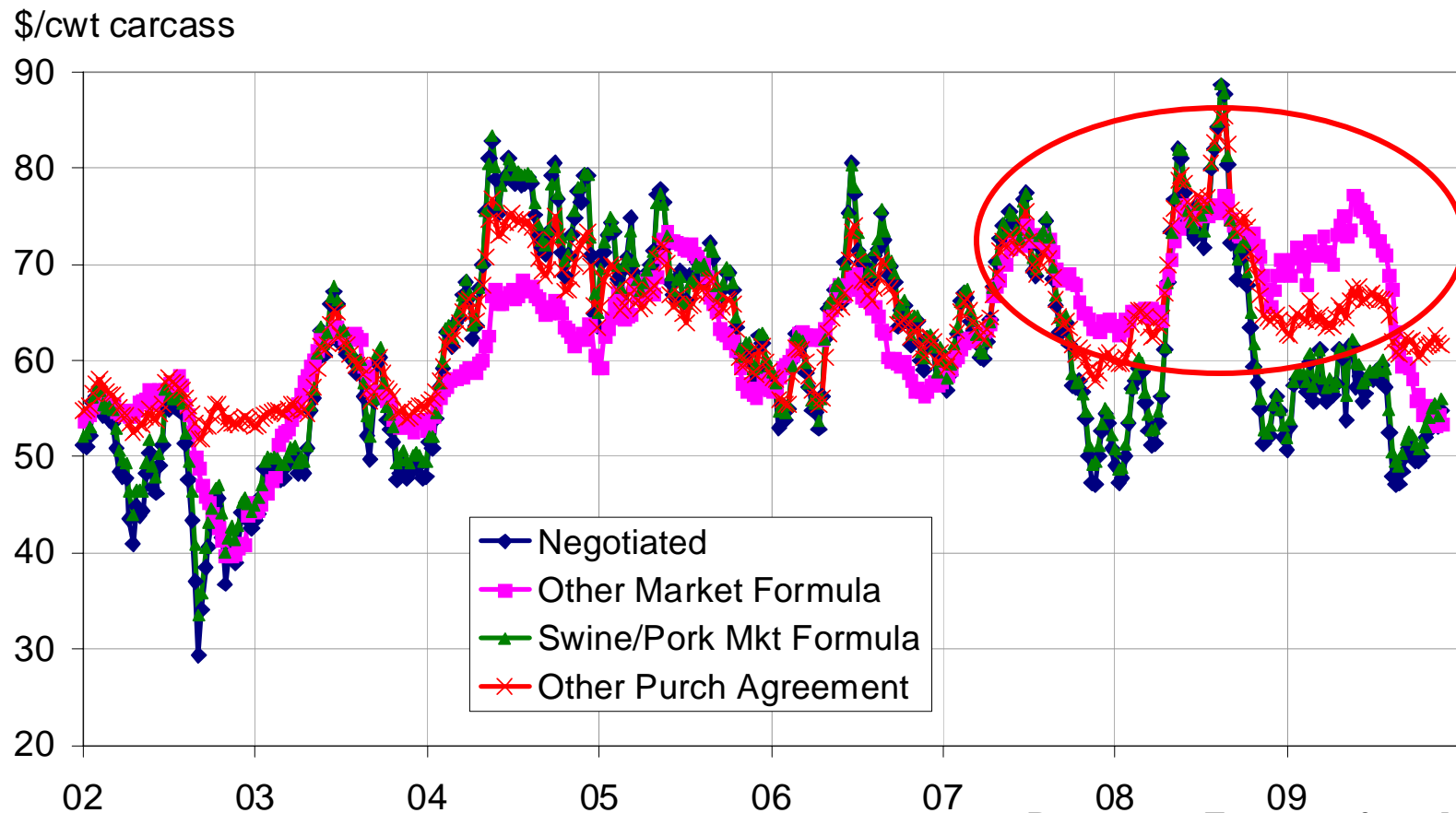
From information, knowledge



Futures: \$10-\$15 advantage many weeks ...

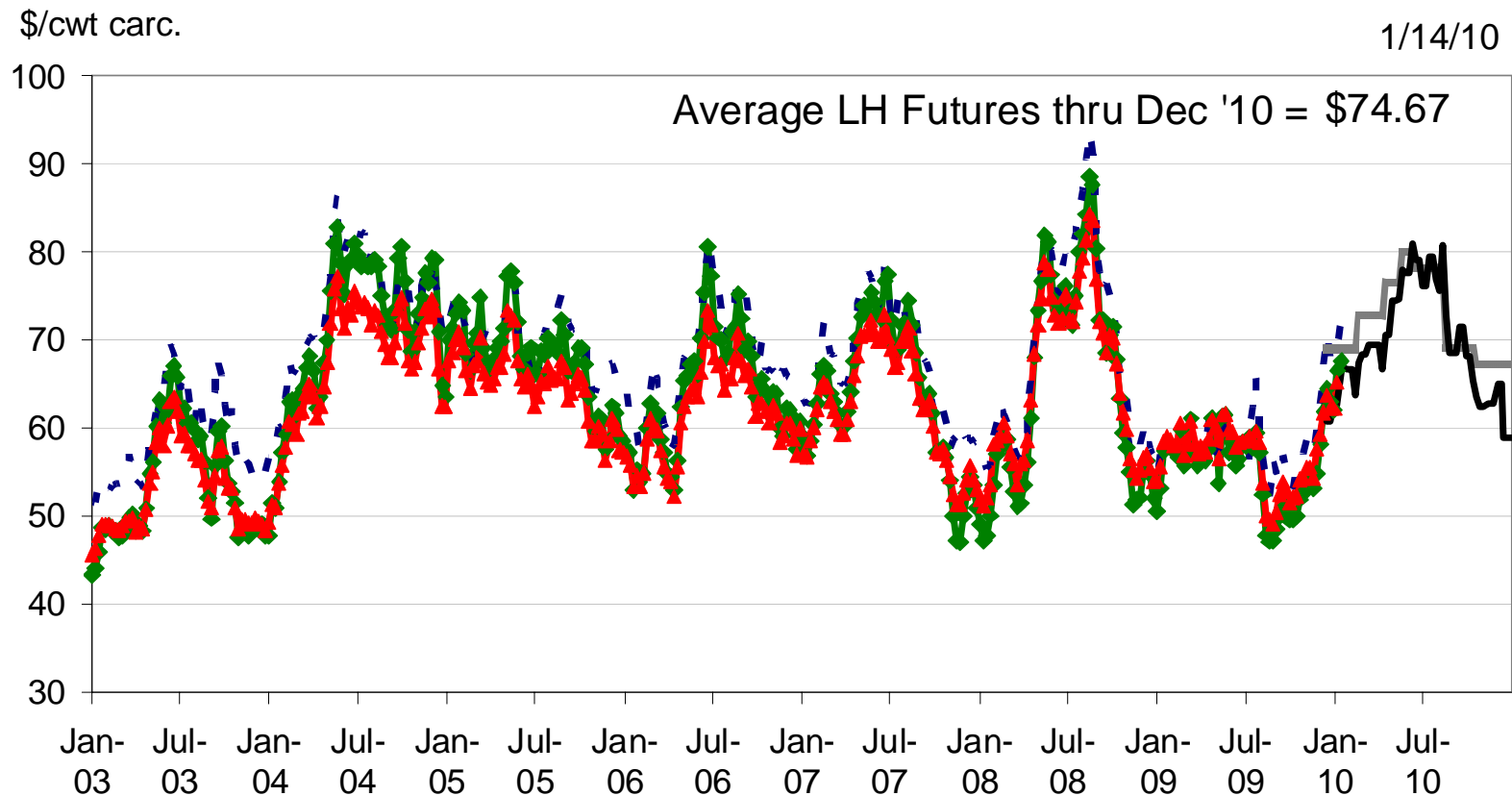
... and OMF (feed prices) had advantage, too

MARKET HOG PRICES BY PRICING METHOD



The LH futures "carrot" is good again!

U.S. HOG PRICES, WEEKLY



Paragon Economics, Inc.

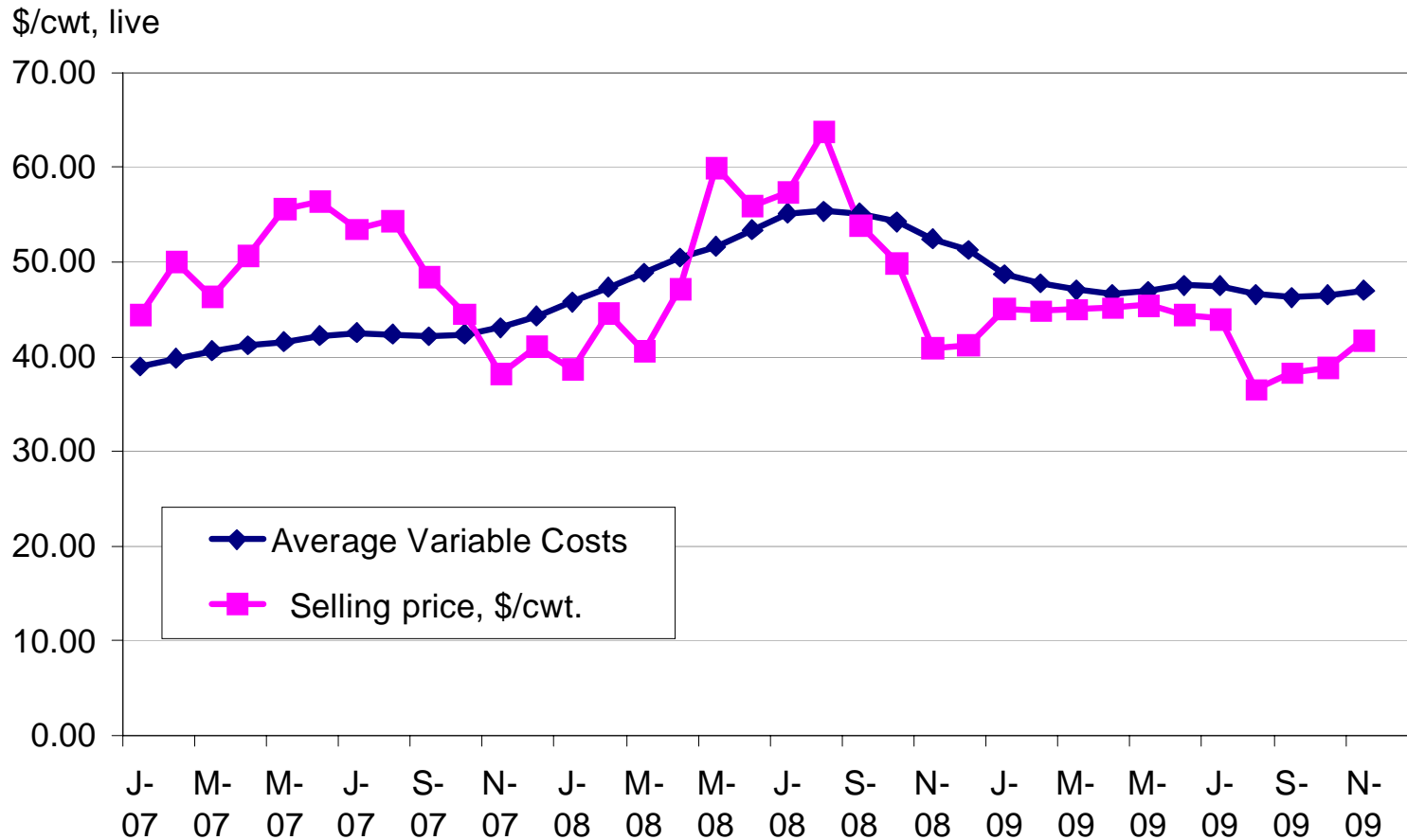
From information, knowledge



Prices have been close to AVC ...

... Except in Q4-08 and Aug-Nov '09

HOG PRICE VS. AVG. VARIABLE COSTS



Paragon Economics, Inc.

From information, knowledge



Supply forecasts

December 2009 Commercial Slaughter Forecasts

		Mizzou		ISU		LMIC		Meyer	
		Mil. Hd	% Chnge	Mil. Hd	% Chnge	Mil. Hd	% Chnge	Mil. Hd	% Chnge
2008	Year	116.452	6.7%						
2009	Q1	28.488	-3.8%	28.488	-3.8%	28.488	-3.8%	28.488	-3.8%
	Q2	27.063	-3.1%	27.063	-3.1%	27.063	-3.1%	27.063	-3.1%
	Q3	28.419	-1.0%	28.419	-1.0%	28.419	-1.0%	28.419	-1.0%
	Q4	29.670	-1.8%	29.912	-1.0%	29.607	-2.0%	29.489	-2.4%
	Year	113.640	-2.4%	113.882	-2.2%	113.577	-2.5%	113.459	-2.6%
2010	Q1	27.775	-2.5%	28.203	-1.0%	28.179	-1.1%	28.422	-0.2%
	Q2	26.520	-2.0%	27.776	-2.5%	26.792	-1.0%	26.706	-1.3%
	Q3	27.850	-2.0%	28.061	-1.5%	28.124	-1.0%	27.784	-2.2%
	Q4	28.900	-2.4%	27.776	-2.5%	29.238	-1.3%	28.916	-1.9%
	Year	111.045	-2.2%	111.815	-1.8%	112.332	-1.1%	111.828	-1.4%

Green figures are actual data from USDA. Red figures are based on partial USDA data.

12/30/09

Paragon Economics, Inc.

From information, knowledge



Price forecasts – Look at futures!

December 2009 Hogs & Pigs Price Forecasts

		Missouri	ISU	LMIC	Meyer	CME
		51-52% Lean, Live ¹	Ia-S. Mn. Live Price ¹	National Wtd Avg. Base Price	National Net Neg'd Price, Wtd. Avg.	CME Lean Hog Futures
2008	Q1	\$52.85	\$53.05	\$55.27	\$53.40	\$54.26**
	Q2	\$70.01	\$73.80	\$69.92	\$71.66	\$71.66**
	Q3	\$76.36	\$80.02	\$75.60	\$77.48	\$78.45**
	Q4	\$55.89	\$57.25	\$59.00	\$56.70	\$58.51**
	Year	\$63.78	\$66.03	\$64.95	\$64.81	\$65.72**
2009	Q1	56.15	56.80	58.11	57.22	\$58.14**
	Q2	57.67	58.48	59.45	58.18	\$59.03**
	Q3	53.84	58.93	54.01	52.39	\$54.18**
	Q4	53.95*	53.85*	56.61*	55.54*	\$56.27**
	Year	55.95*	57.04*	57.05*	55.83*	\$56.91**
2010	Q1	59 - 63	62 - 66	56 - 59	58 - 62	65.86
	Q2	63 - 67	70 - 74	61 - 64	68 - 72	74.62
	Q3	66 - 70	69 - 73	65 - 68	66 - 70	76.34
	Q4	61 - 62	64 - 68	63 - 67	60 - 64	67.53
	Year	62 - 66	66 - 70	61 - 65	63 - 67	71.09

¹Converted to carcass using a yield of 75% *Partial USDA data

**Average of CME Lean Hog Index

Paragon Economics, Inc.

From information, knowledge



How do producers survive and prosper?

- Manage their MARGIN!
 - Feed costs
 - Hog prices
- Manage risk relative to your risk-bearing capacity
 - Right now – probably not high=hedge!
 - Future – maybe you can take more risk
- Most cannot afford to gamble on getting the highest price or margin!
- Financial management – Cash & credit



What does all of this mean
for the future?

Paragon Economics, Inc.

From information, knowledge



Where will we be in 2011 and beyond?

- The U.S. animal protein business will be smaller – a logical, predictable consequence of policy decisions.
 - Fewer processors needed – probably will NOT lose a plant in 2010, but 2011 and on??
 - Fewer suppliers
 - Fewer support service providers
- More scrutinized and regulated
- More dependent on international markets



Domestic forces – almost all NEGATIVE

- Political climate favors intervention and regulation
- Protectionism – perhaps cooling now
- Political and cultural forces that are definitely anti-meat – diet, ethics (?), etc.
- Cultural climate that elevates nature and animals to “God” status
- Economic downturn – What spending patterns will emerge?



International issues – almost all positive!

- 96% of the world's population lives outside the U.S.
- The U.S. will remain a competitive supplier of fed beef, pork and chicken
- The U.S. will remain a grain exporter – key to competitive feed costs
- Major economies (China, India, Indonesia) are recovering faster and still growing
- A cheaper U.S. dollar (probability near 1.0) will make us ultra-competitive



After the dust settles ...

- There will be viable, competitive U.S. animal protein sectors – they will NOT disappear!
- They will be smaller than before '07
- Participants will have to be VERY good!
- Many operational choices will be limited – higher costs
- U.S. consumers will be forced to pay more for animal proteins in particular and food in general – Will they stand for it?



Two other sources for my work:

CME's Daily Livestock Report

www.dailylivestockreport.com

National Hog Farmer's Weekly Preview

www.nationalhogfarmer.com

