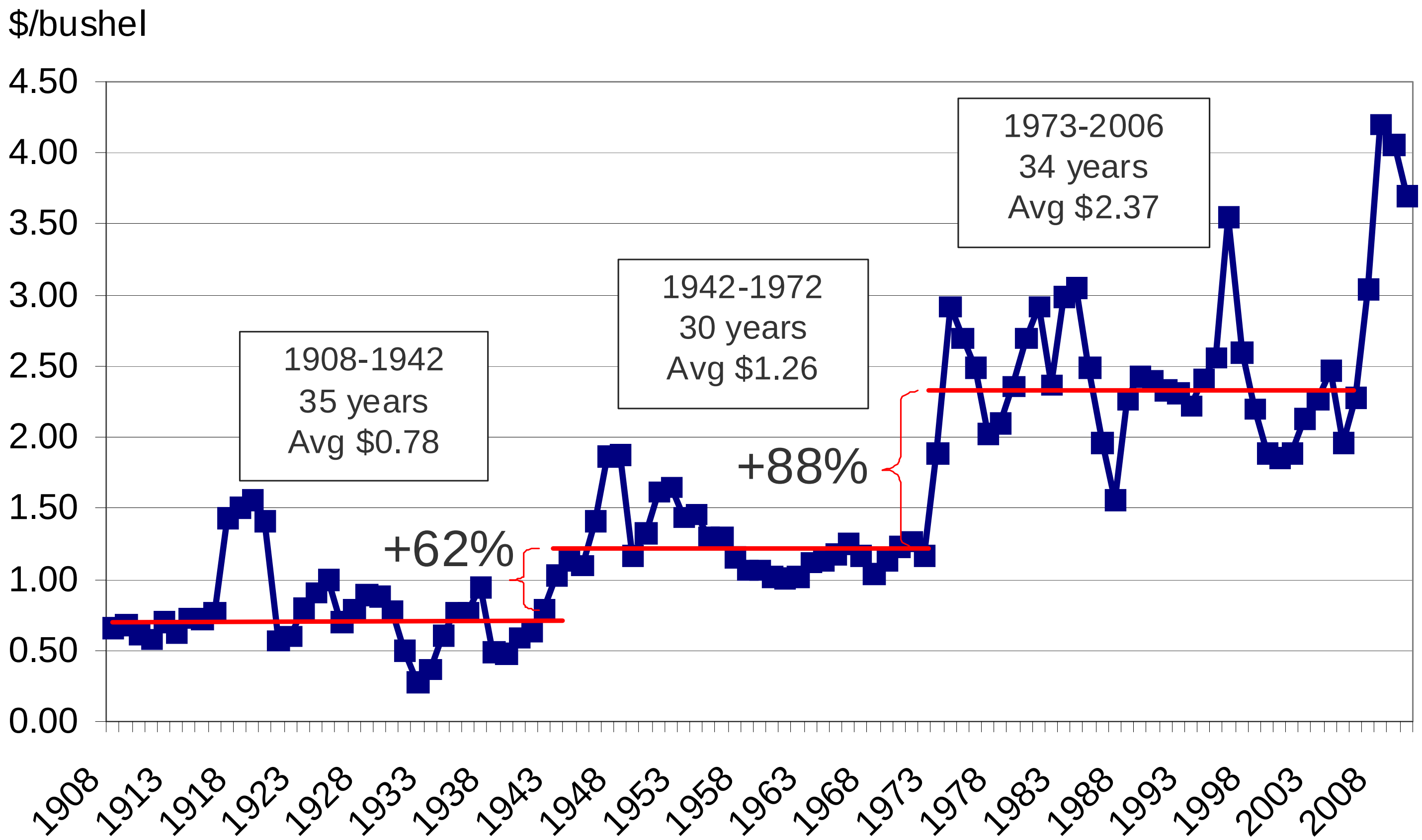
After The Dust Settles: The North American Pork Industry in 2010 and Beyond?

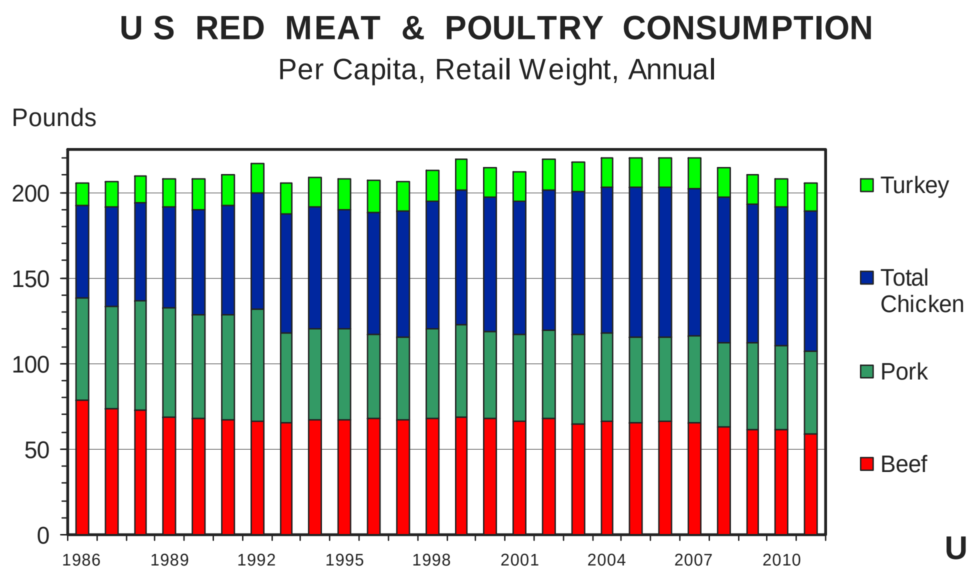
How did we get here?

- A long history of low-priced grain

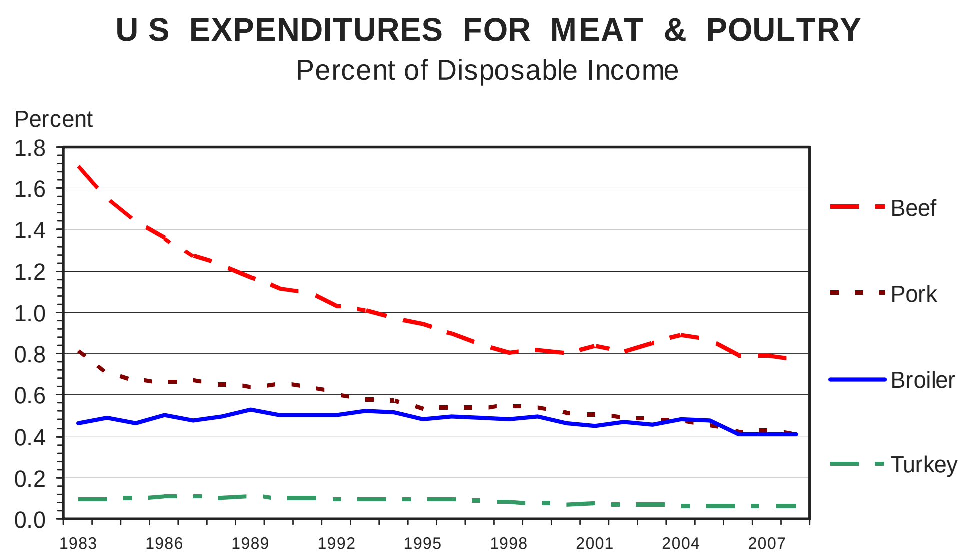
ANNUAL AVERAGE CORN PRICE, 1908-2009



Result 1: More meat at lower cost



Higher consumption: +23 lbs. from 1986 to 2007



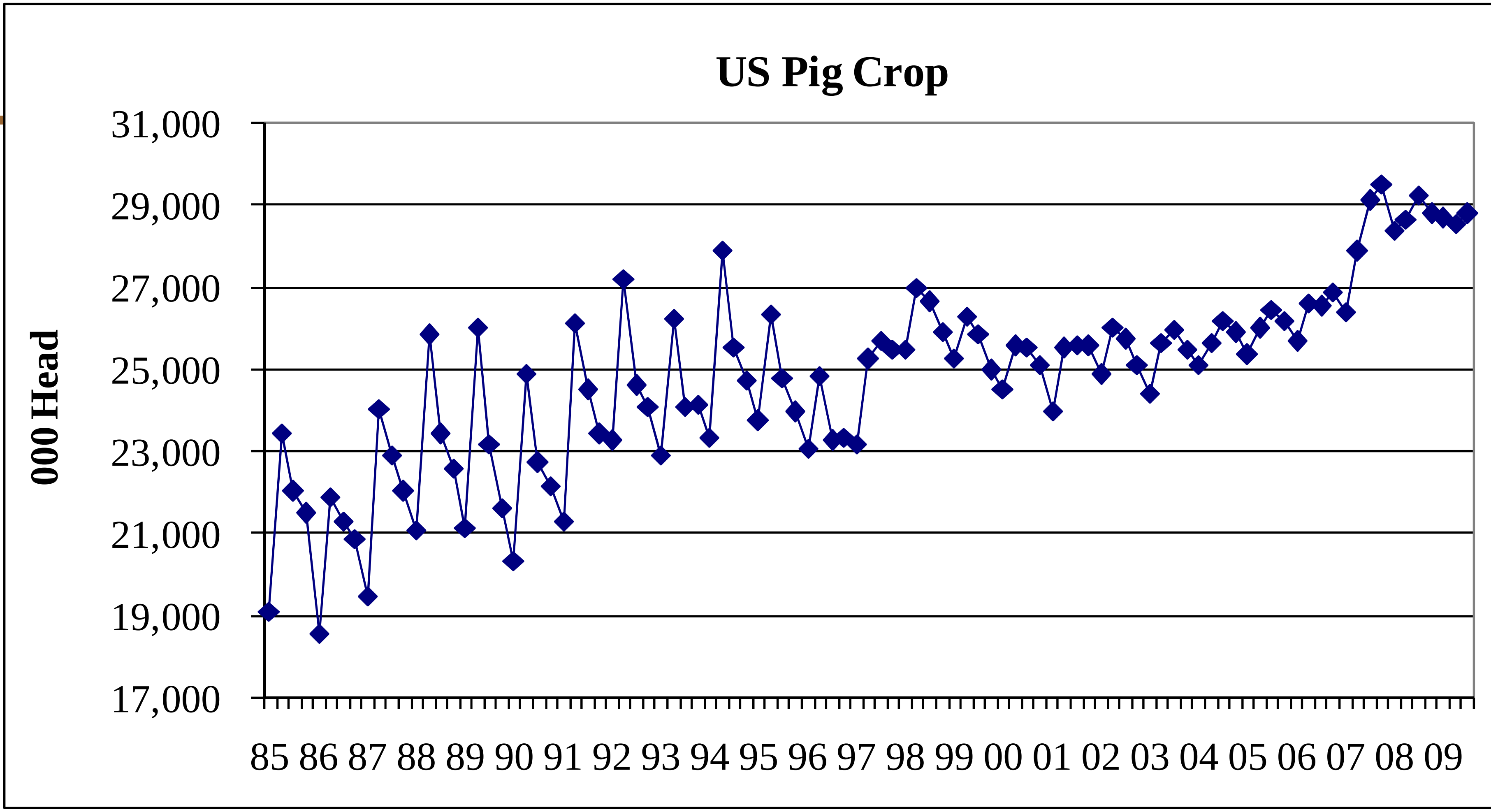
Lower consumer cost as a percent of income: - 1.3% from 1983 to 2008

Result 2: Specialization and consolidation

U.S. MARKETINGS BY PRODUCER SIZE

Number Marketed	1988	1991	1994	1997	2000	2003	2006
Under 1,000	32%	23%	17%	5%	2%	1%	1%
1,000 - 1,999	19	20	17	12	7	8	5
2,000 - 2,999	11	13	12	10	5		
3,000 - 4,999	10	12	12	10	7	4	3
5,000 - 9,999	9	10	12	11	10	9	6
10,000 - 49,999	12	13	13	17	18	19	21
50,000+	7	9	17	36	51	59	65

Source: 2007 Pork Industry Study (National Pork Board, PIC, Land O' Lakes, Monsanto Choice Genetics,Univ. of Mo., Iowa State Univ., Pork magazine)



- The trend in the pig crop pre and post 98/99 tell an interesting story about the industry structure

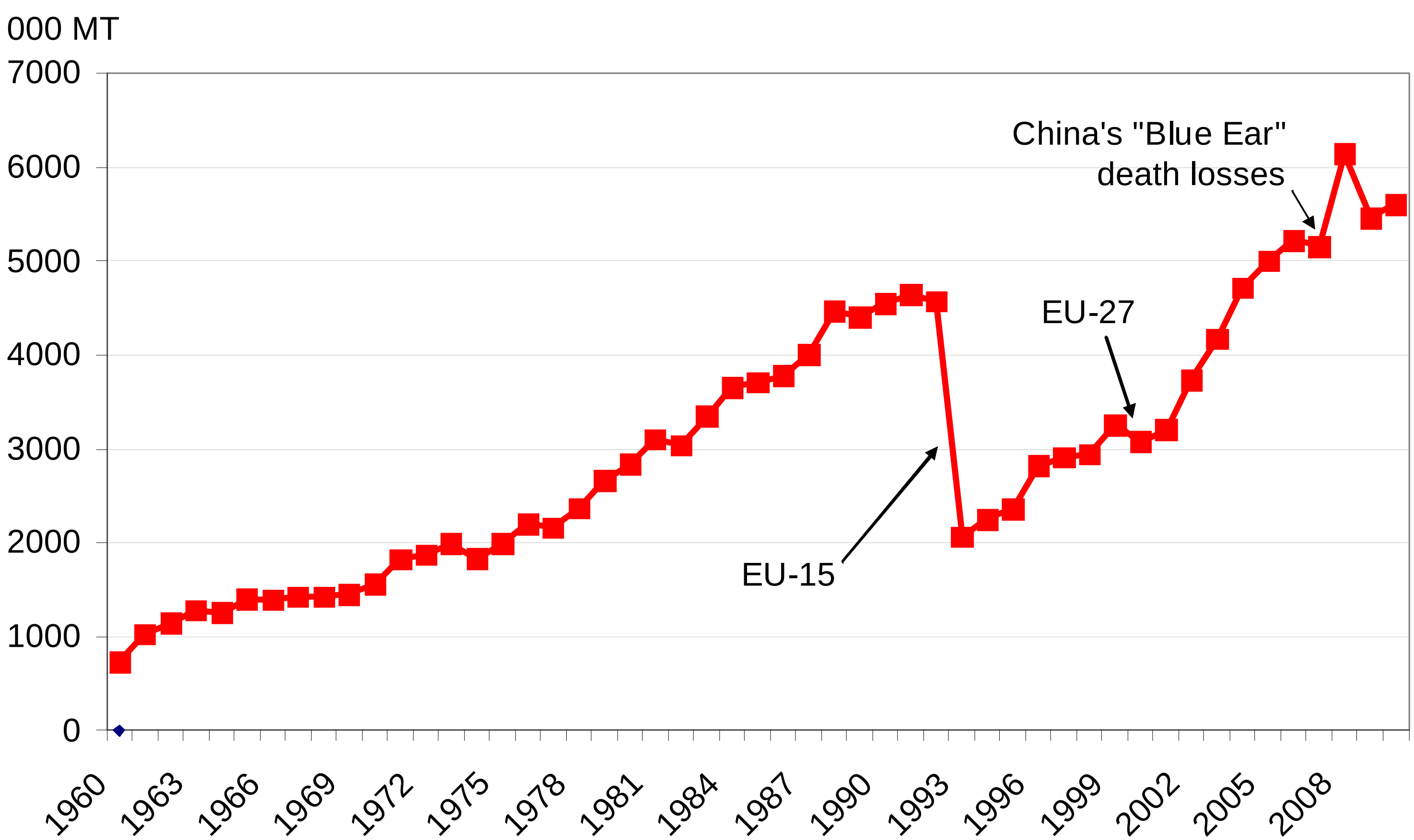
How did we get here? -- Continued

- Significant technology developments
  - Segregation and disease control
  - 1000-head finishing barns – X2 for split-sex, X8 for labor optmization
  - Artificial insemination – primarily an education effort
  - Improved information technology – allowed control by “bean counters” and managers
- Early-adopters -- many in NC – thrived and GREW while laggards went broke

How did we get here? -- Continued

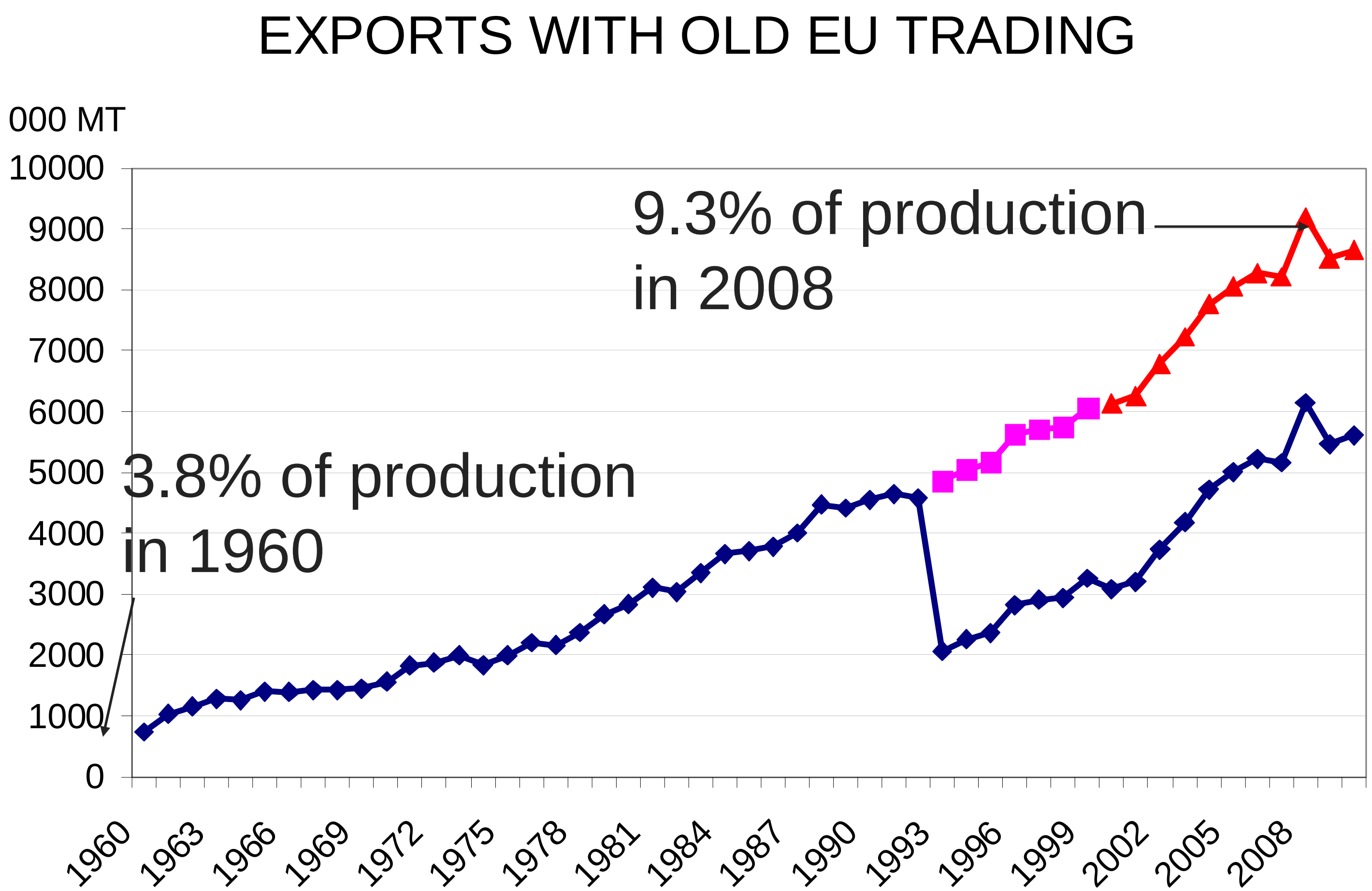
- Globalization

TOTAL WORLD PORK EXPORTS

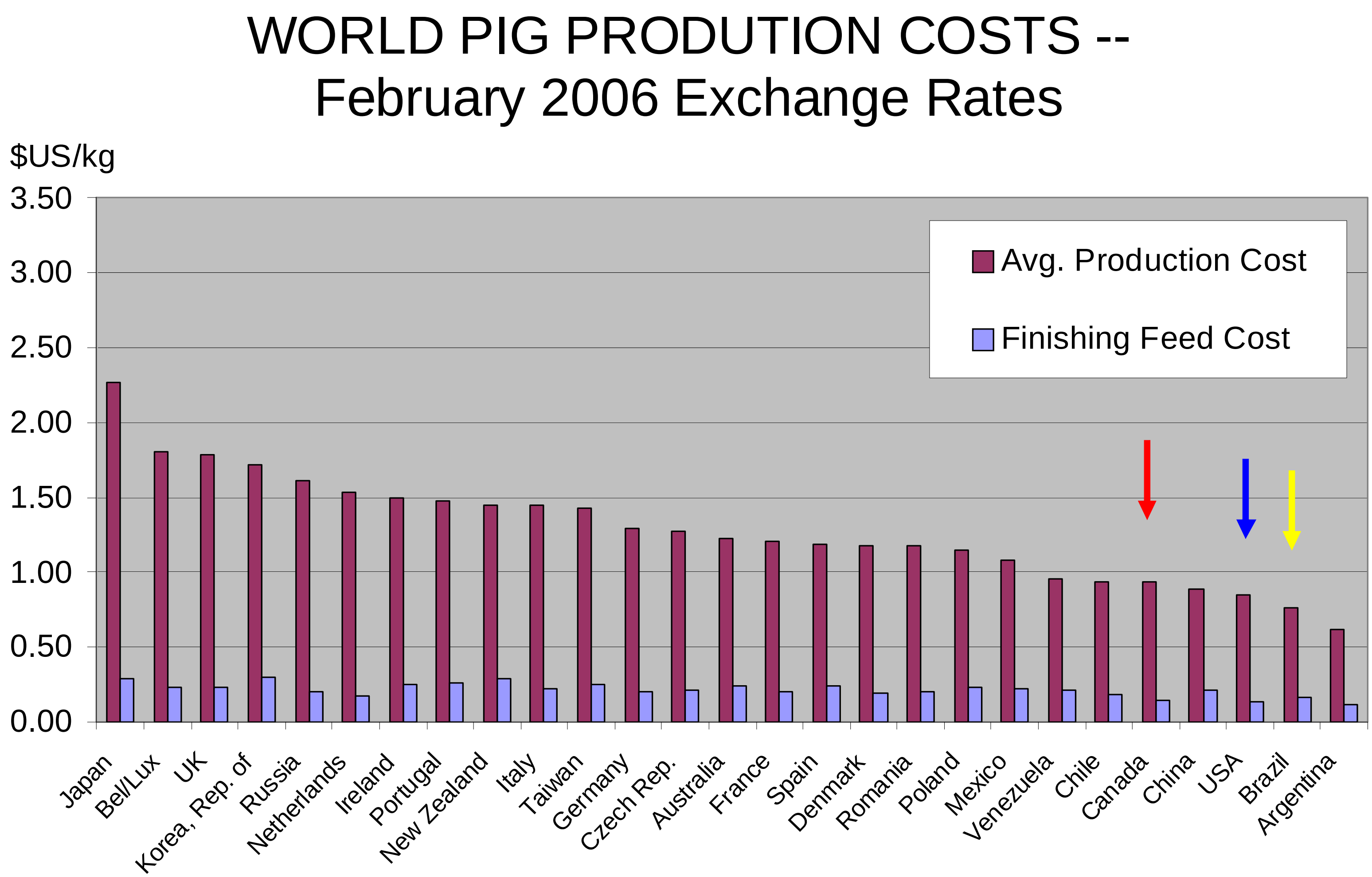


How did we get here? -- Continued

- A better view without EU internalization

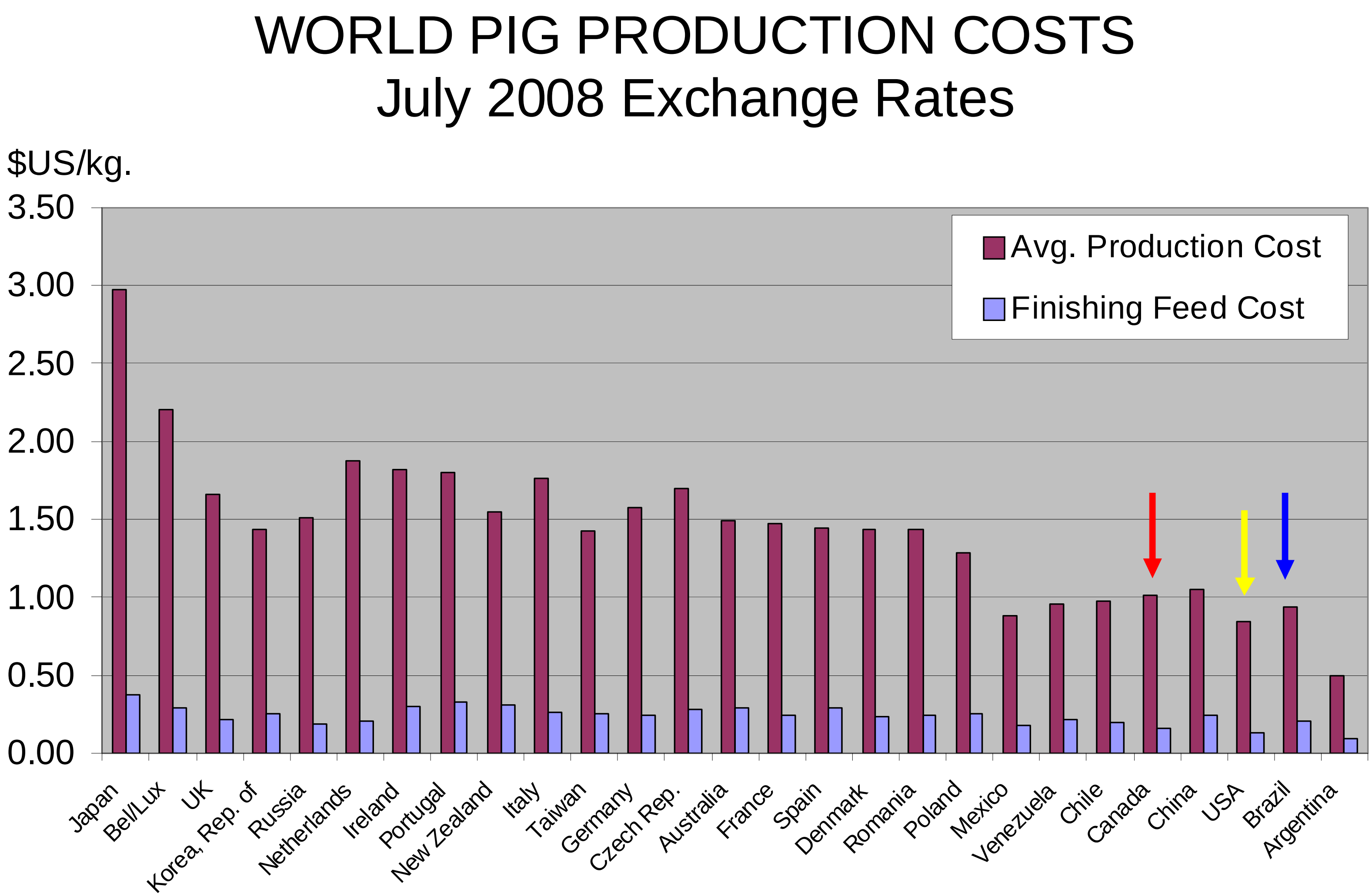


Who is competitive on a global scale?



Source: PIC Worldwide Survey, Feb. 2006

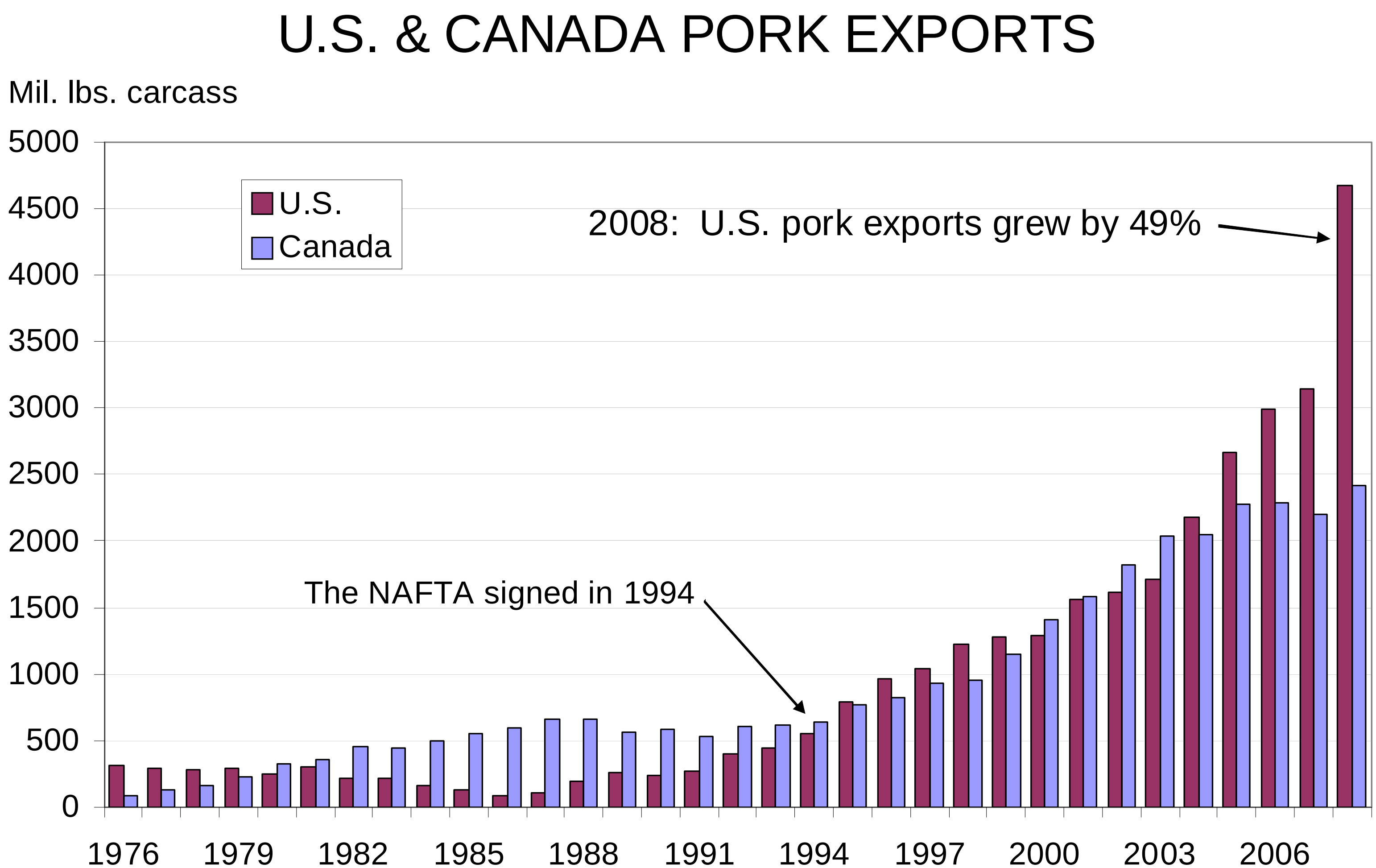
Currency values change the picture -- some



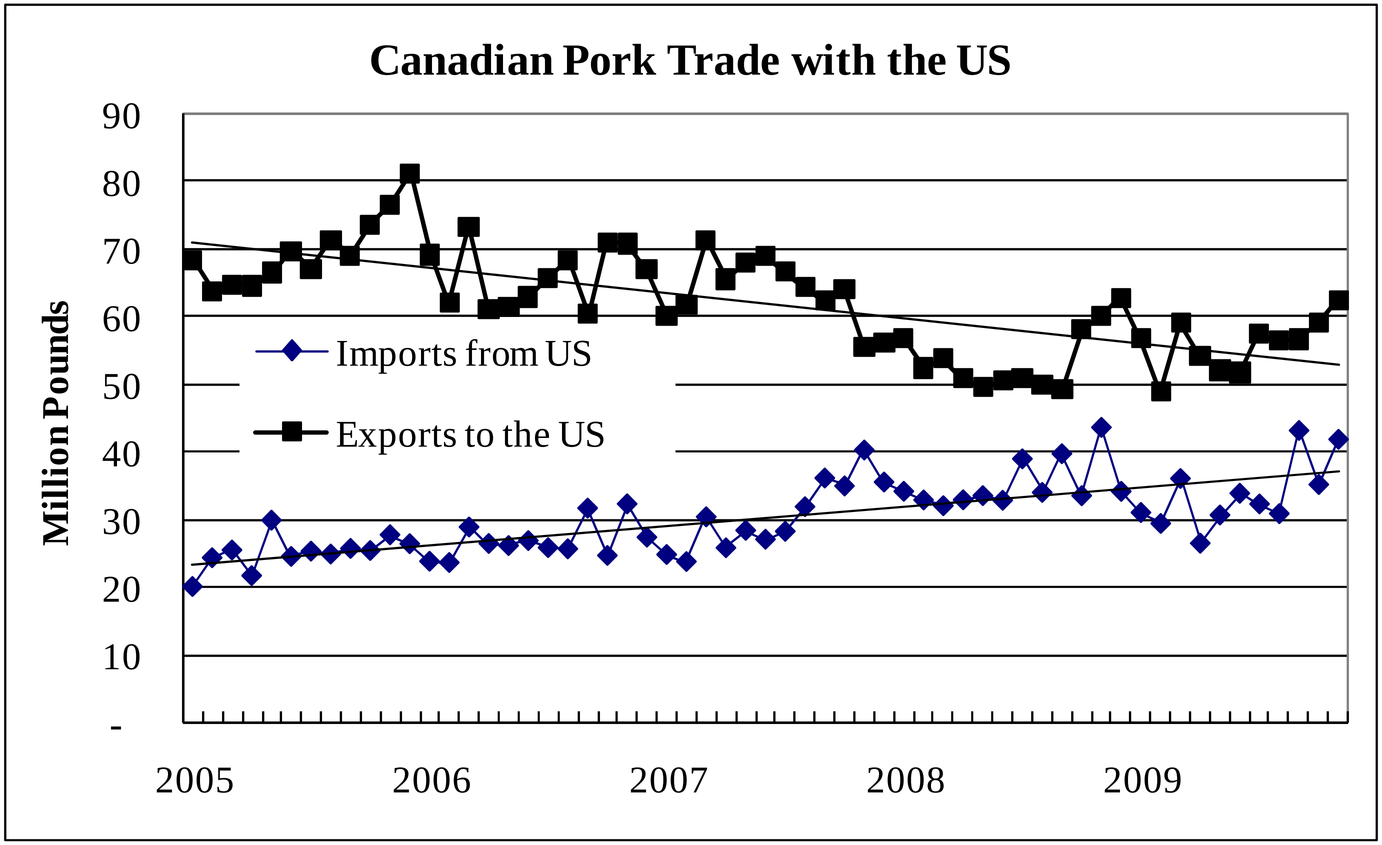
Source: PIC Worldwide Survey, Feb. 2006

Both countries have benefitted . . .

. . . from trade and competitiveness



The US is making serious inroads in Canada

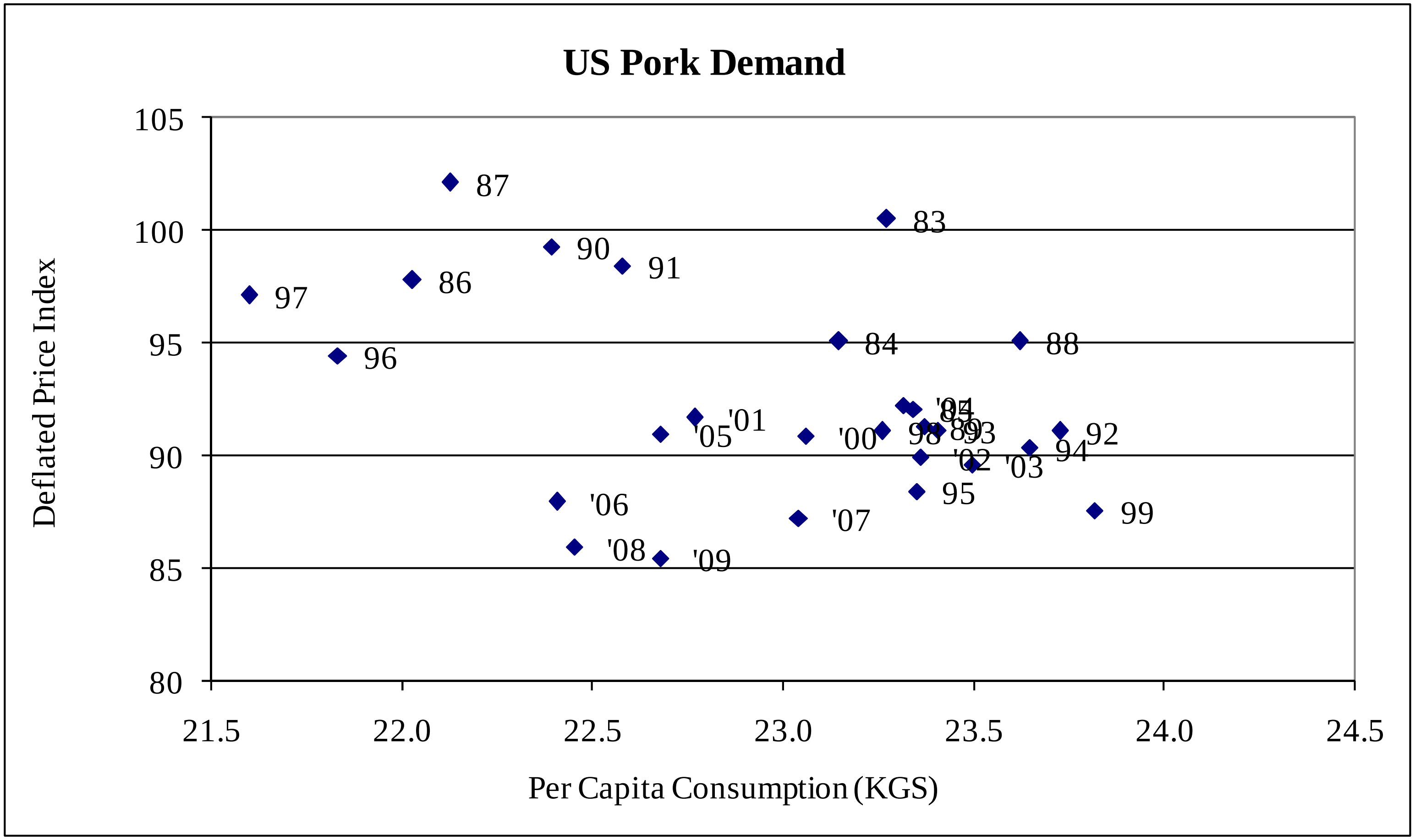


- Cdn imports are nearly all from the US
- Imports: 20% of consumption vs 6% ten years ago

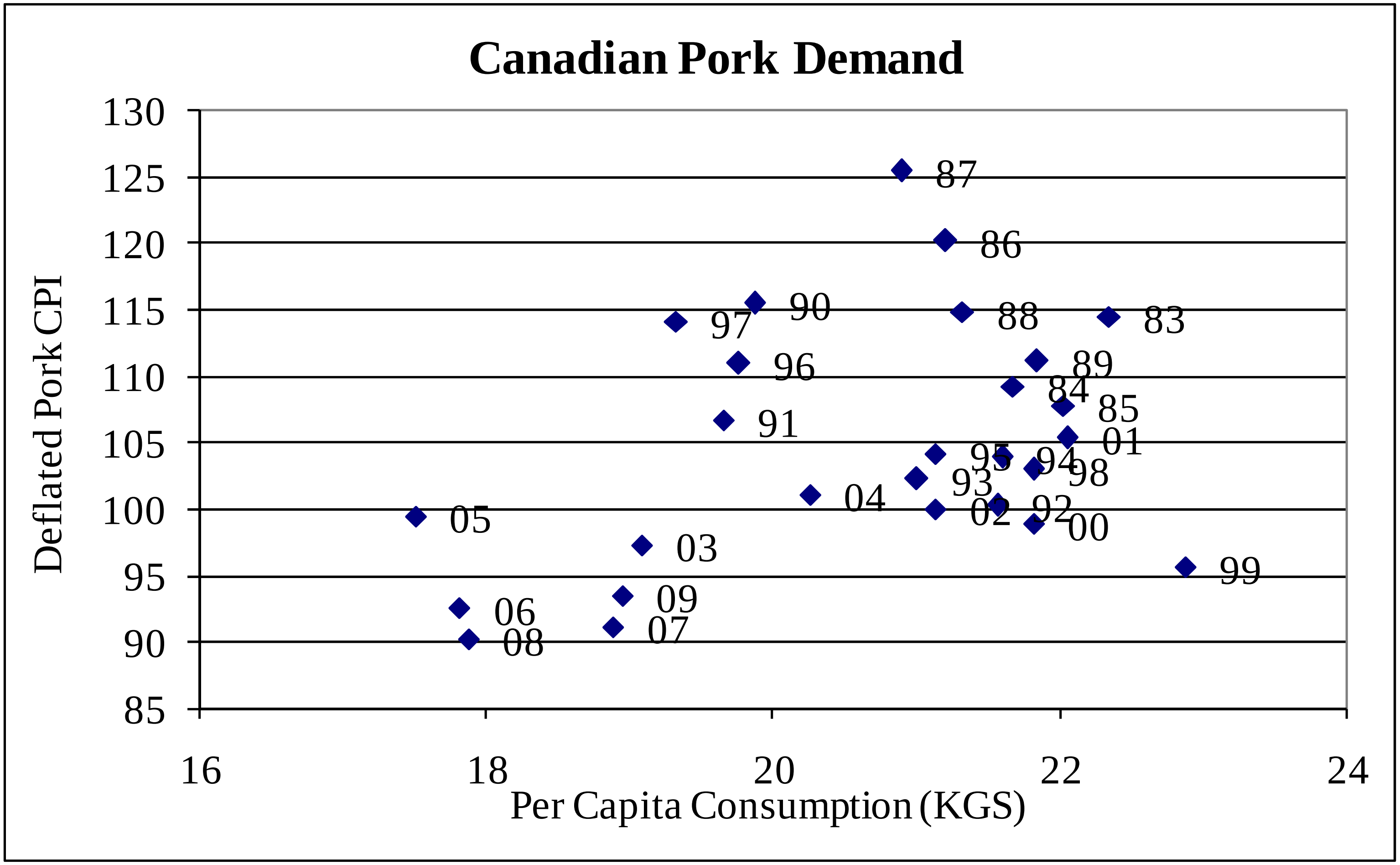
Canada's imports are a function of competitiveness...or lack thereof

- Packer challenges
  - Packer costs versus US...led to restructuring...still work to do.
  - Scale economies...still work to do
- Plus ongoing downsizing
- Relative feed cost challenges
- ...means loss of domestic market share

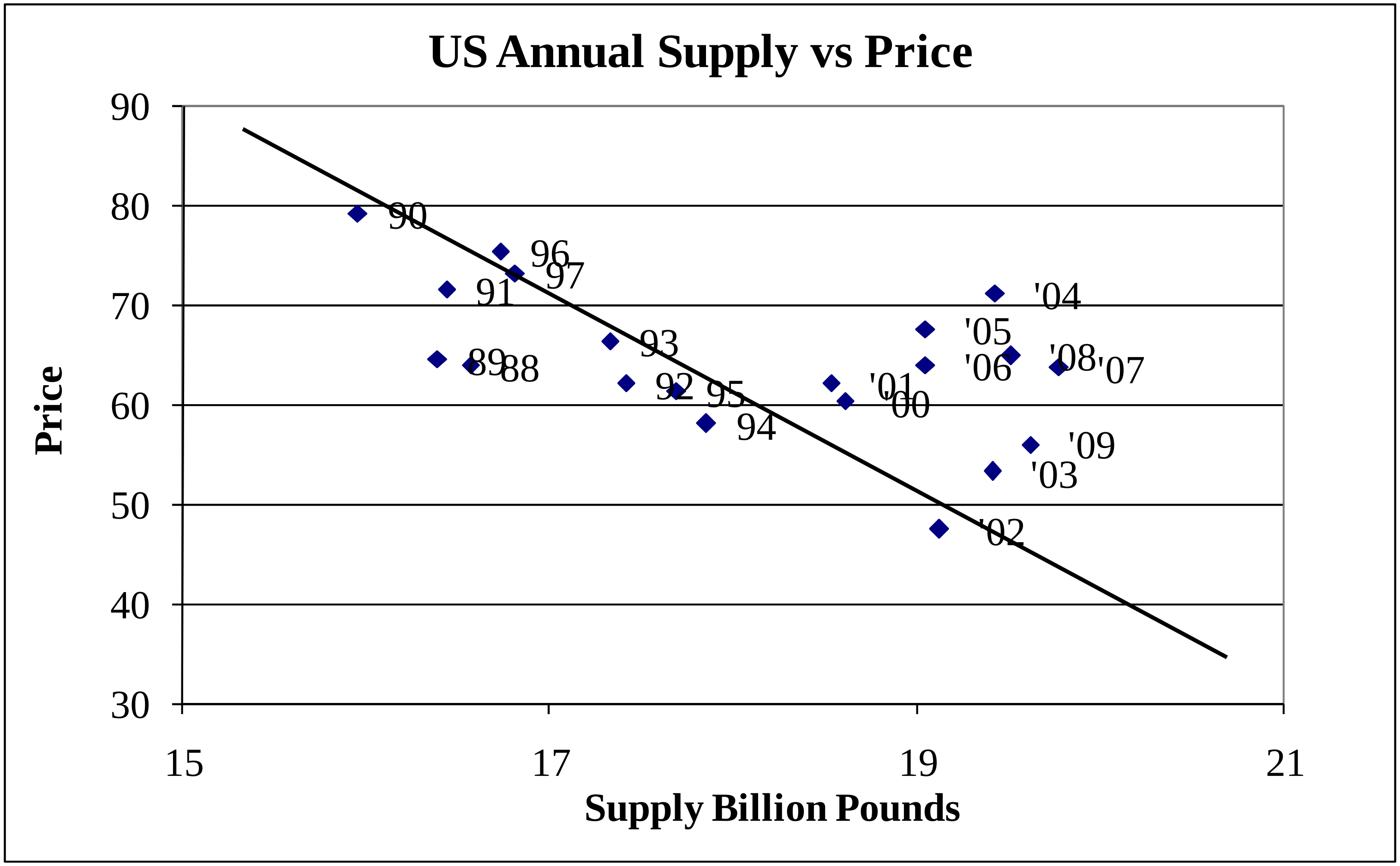
Domestic Demand has been a different story...not as positive as export...by far



US and Canadian pork demand have not been supportive



Exports are the reason for the higher pricing plateau in the 2000's

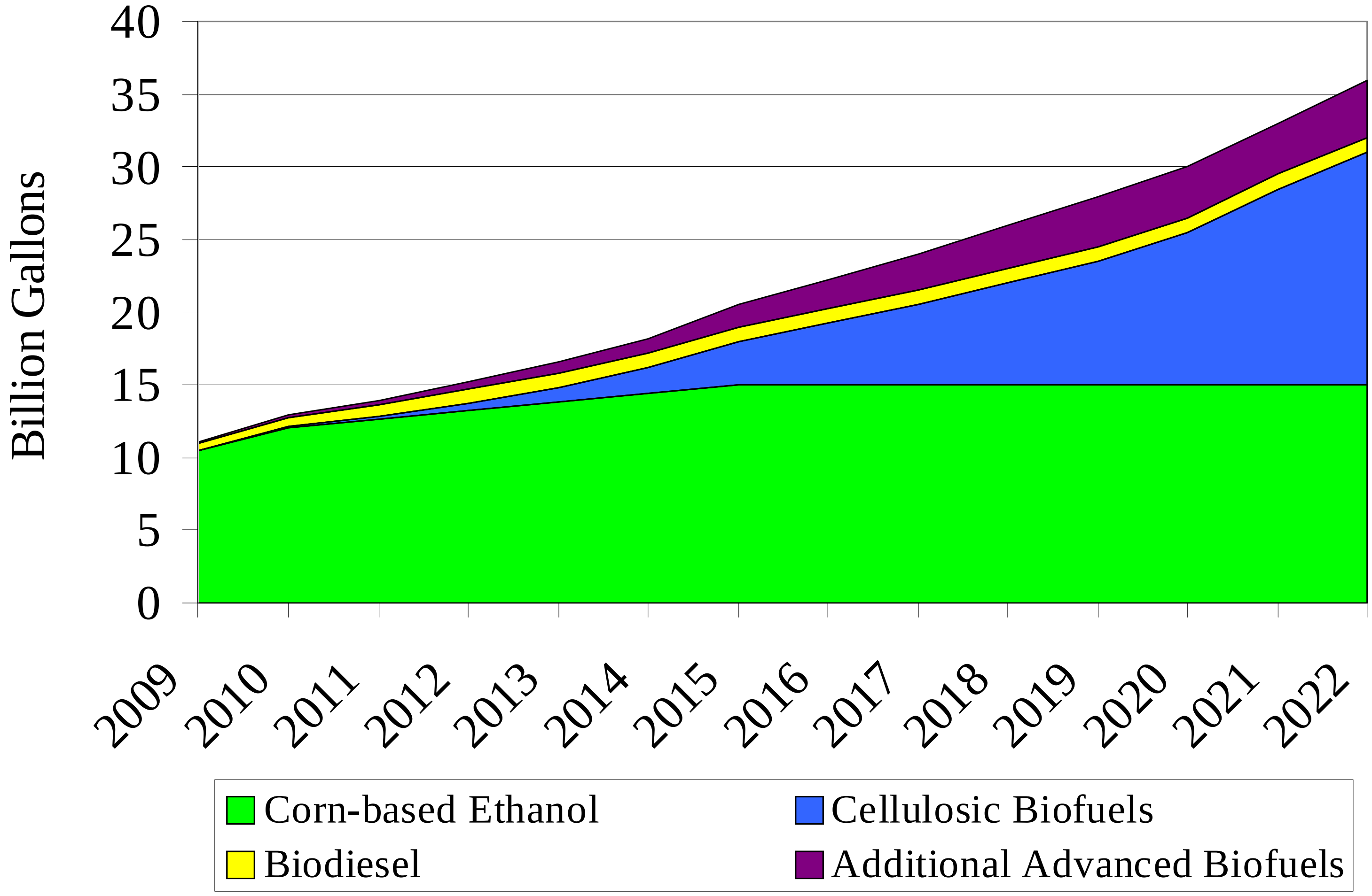


Biofuels: Primary driver but changes afoot

- Blenders' tax credit and import tariff – subsidized and protected distillers
- **BOTH OF THESE ARE DUE TO EXPIRE 12/31/10**
  - CBO is asking why were are still subsidizing
  - Budget deficits = high interest in tax dollars

Renewable Fuels Standard . . .

Corn Ethanol: 10.5 bil. in '09, 12 in '10, 15 in '15



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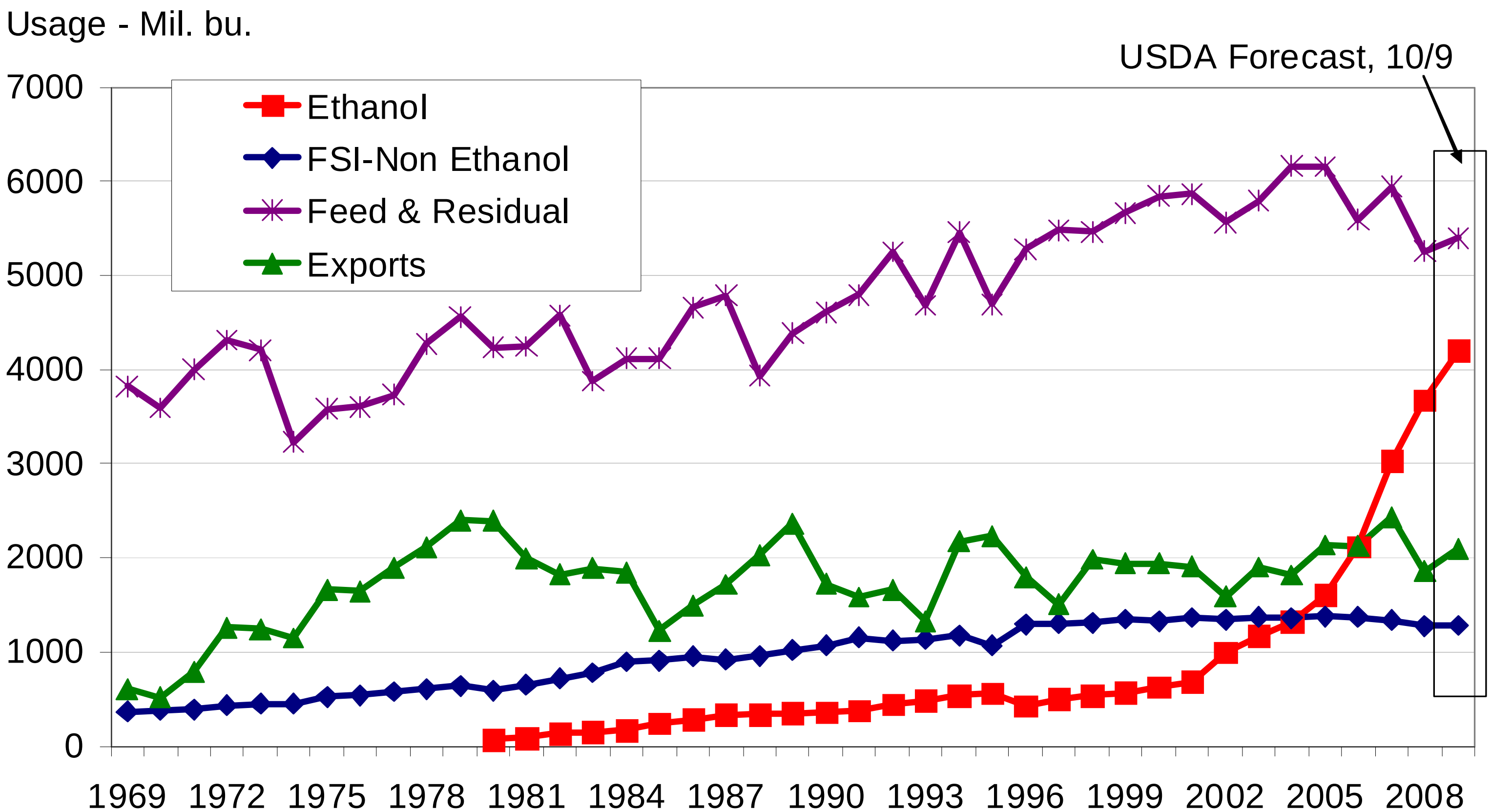
  - CBO is asking why were are still subsidizing
  - Budget deficits = high interest in tax dollars
- 193 current plants (13.3 bil. gal.) with 13 more (1.4 bil.) being built or expanded
- Current plants are operating at 89.6%

’09/’10 corn usage for ethanol = 4.2 bil. bu. . . .

. . . +14.3% vs. ’08; 300+ mil. bu. more in ‘10

U.S. CORN PRODUCTION & USAGE BY CATEGORY



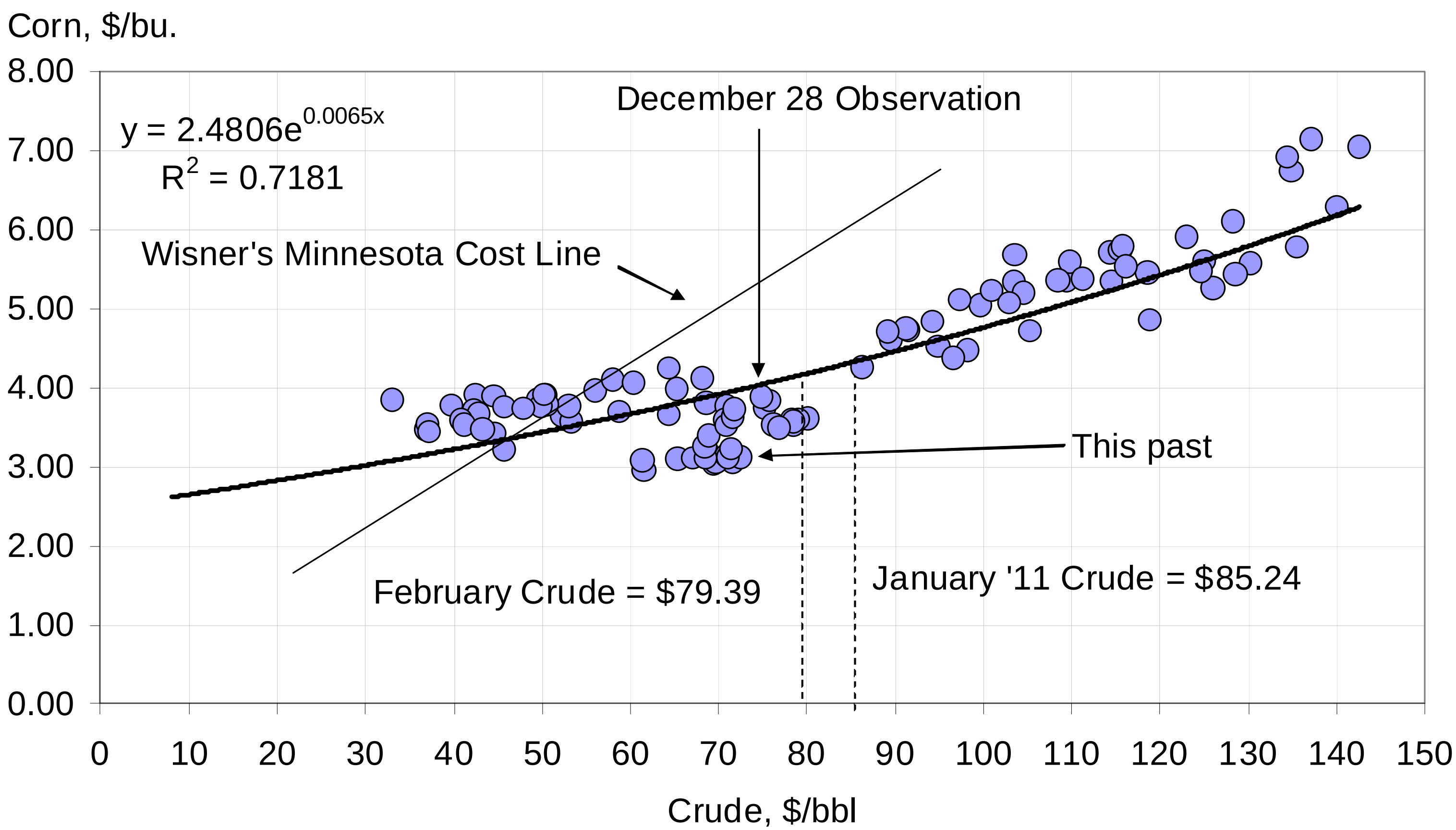
Paragon Economics, Inc.

From information, knowledge

Corn is now directly tied to oil . . .

. . . Relationship now implies $4.10 to $4.30

CASH CORN VS. CASH CRUDE



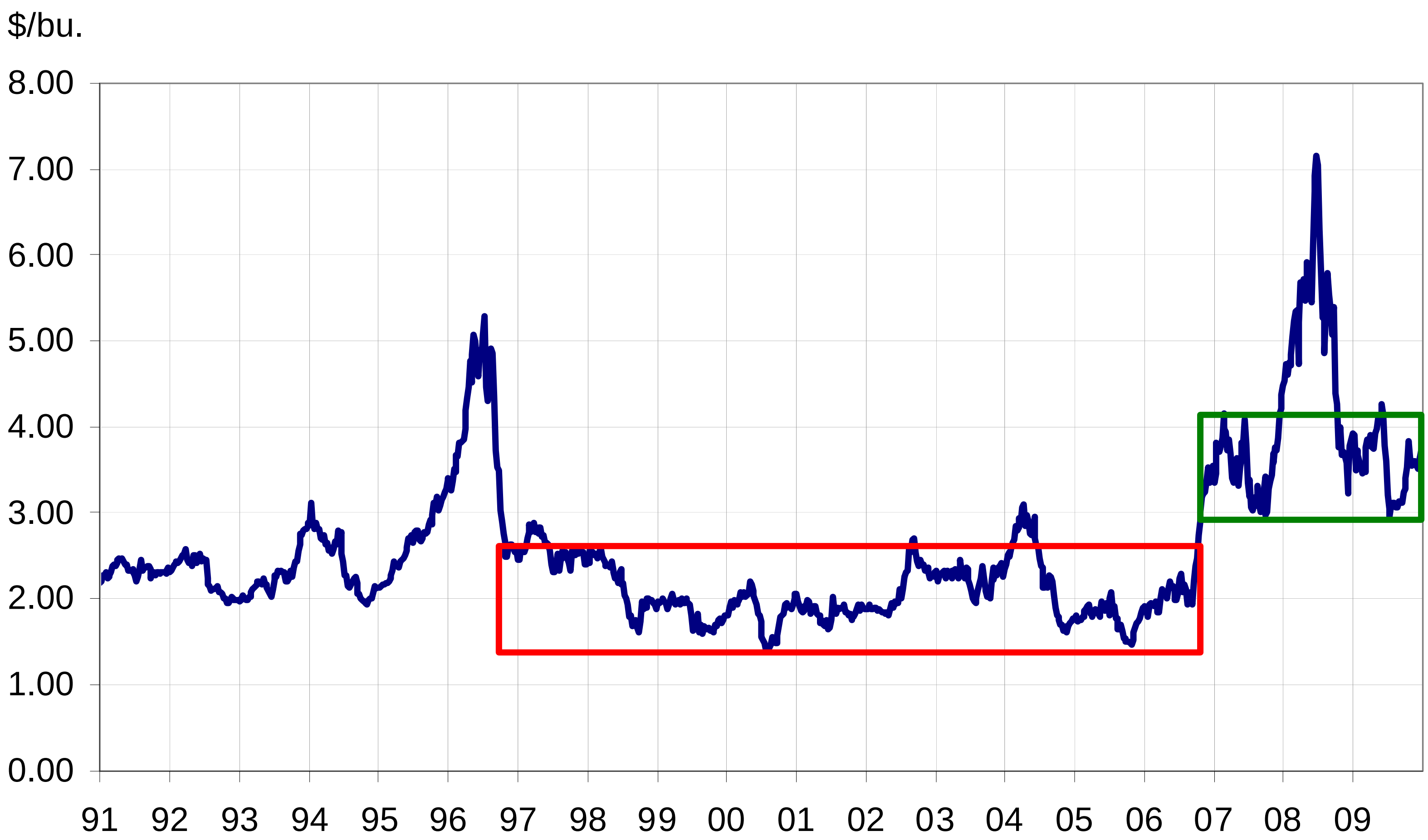
We can't "unring" the ethanol bell

- The plants are in place – they will be operated by someone
- 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?
- NEED – an automatic trigger for situation where oil is cheap and we have a drought

Cash corn has new “normal” range . . .

. . . $3.50 would be +48% from ’73-’06 level

CASH CORN PRICE, OMAHA, WEEKLY



Source: USDA, Agricultural Marketing Service

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

Ethanol Will be Particularly Threatening to Canada (esp Ontario)

- Regional advantage is quantified in the relative spread or basis.
- Lower grain spread leads to higher feeder spread and vice versa
- Which leads to growth (or decline) in feeder numbers in the region
- Its all about the spread or basis

- Yes...the US market drives grain prices in Canada...
- Unprecedented ethanol usage caused unprecedented grain price increases across all of NA and the World...including Canada

- But...what matters is the relative regional impact in Canada...the local/regional spread or basis
- If all prices rose equally....the Cdn livestock industry wouldn't care.

A Budding Ontario Ethanol Industry

- Small but growing ***relatively large***
- Versus the US:
  - Ontario: Projected: **303 gal/corn acre**
  - US (2008): **145.9 gal/corn acre**
- Ontario goes import basis? US always export basis.

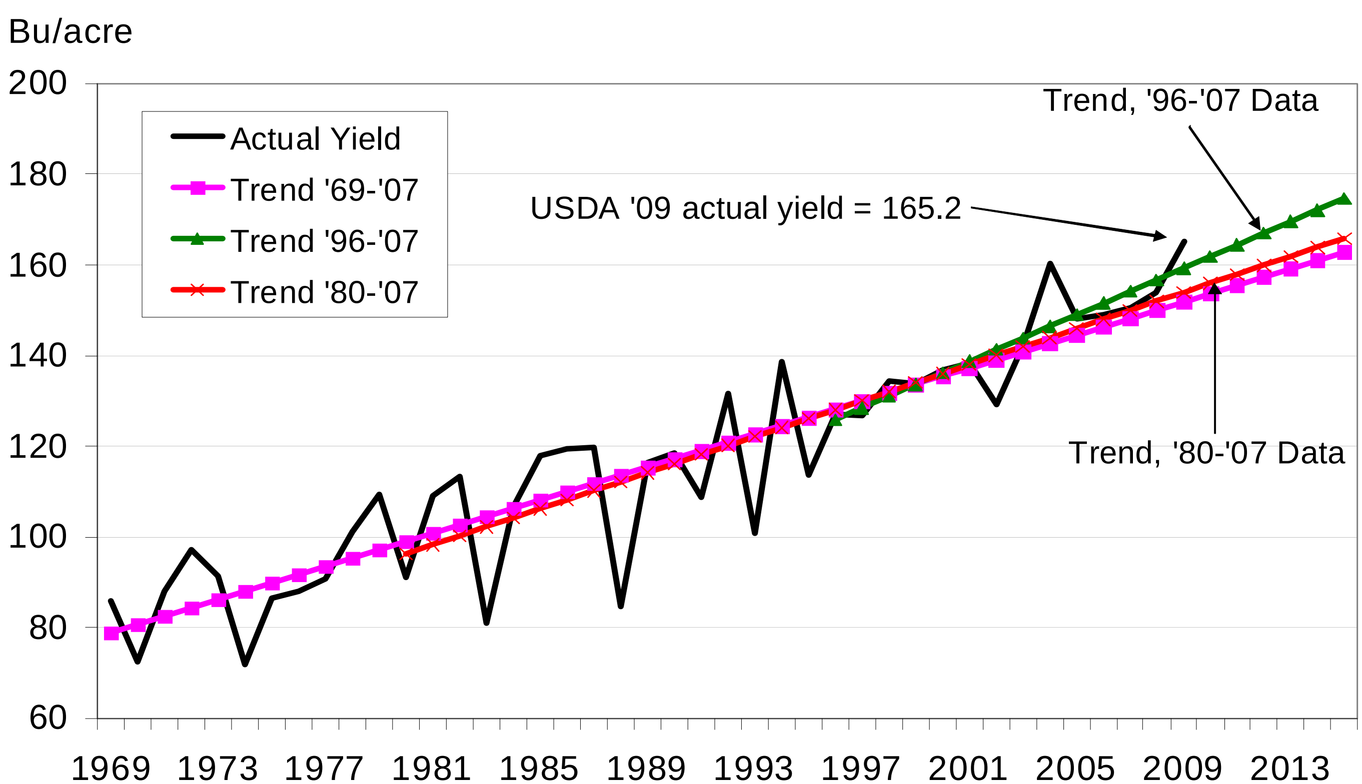
Ethanol Summary

- Ethanol development in Canada:
  - Strengthened the feed grain basis
  - Reduces feeder prices
  - Weakens demand for feeder animals
  - Livestock to be fed elsewhere
  - Will induce shrink in Cdn sow herd

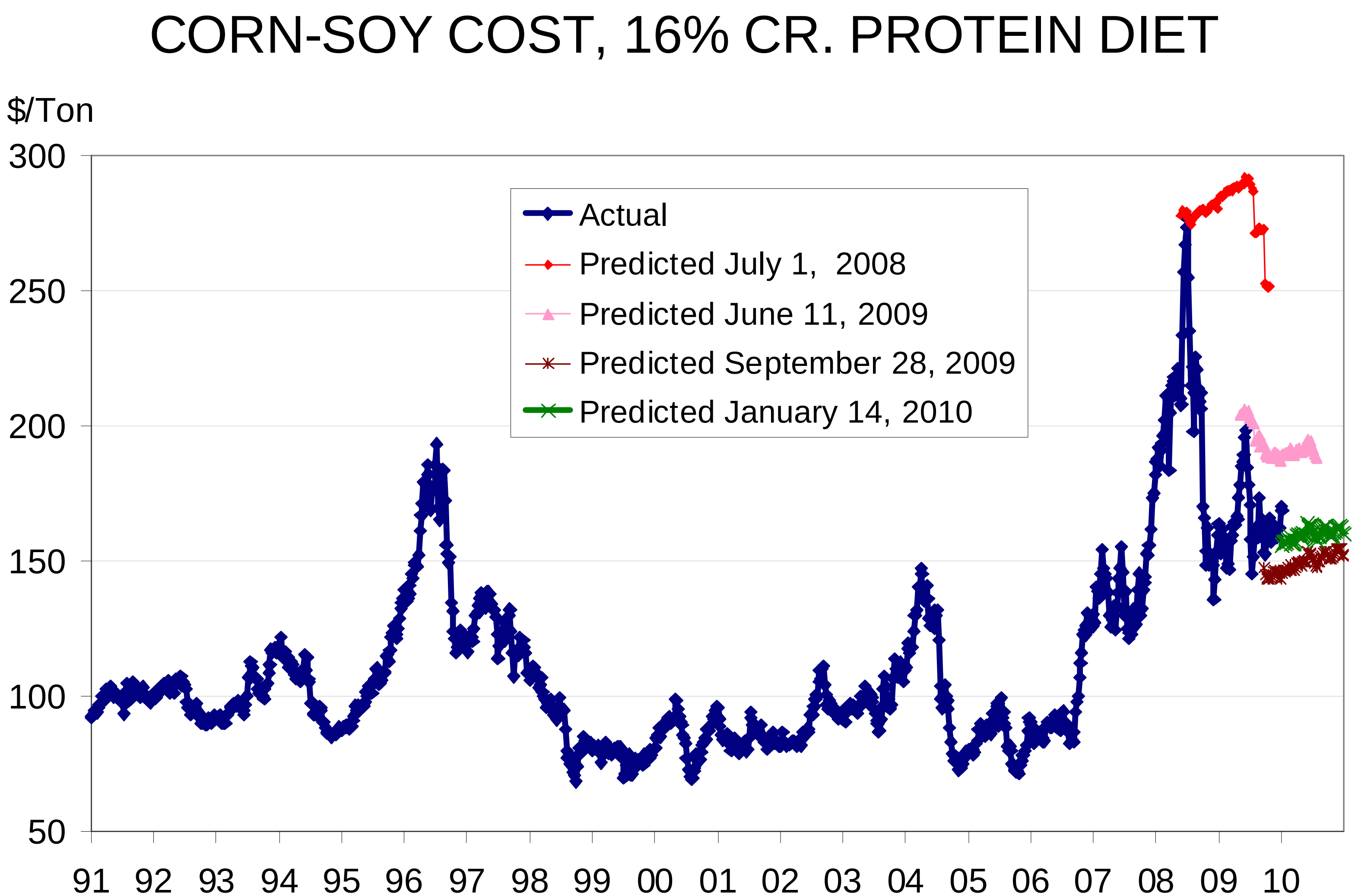
The situation will not get better QUICKLY . . .

- Corn yields are the only significant miti-gating factor

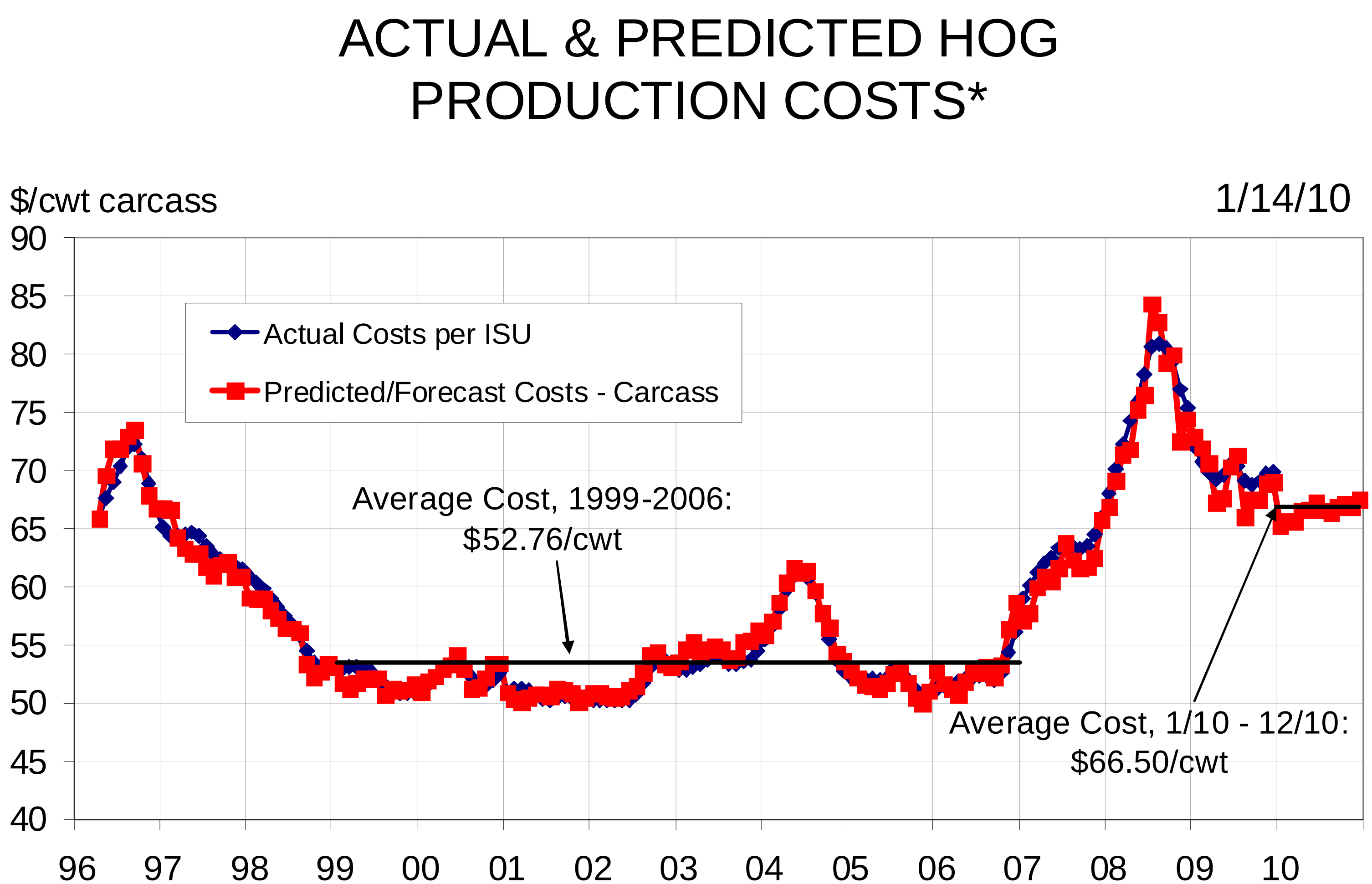
ACTUAL & PROJECTED CORN YIELDS



Feed prices: Lower but still 2X history

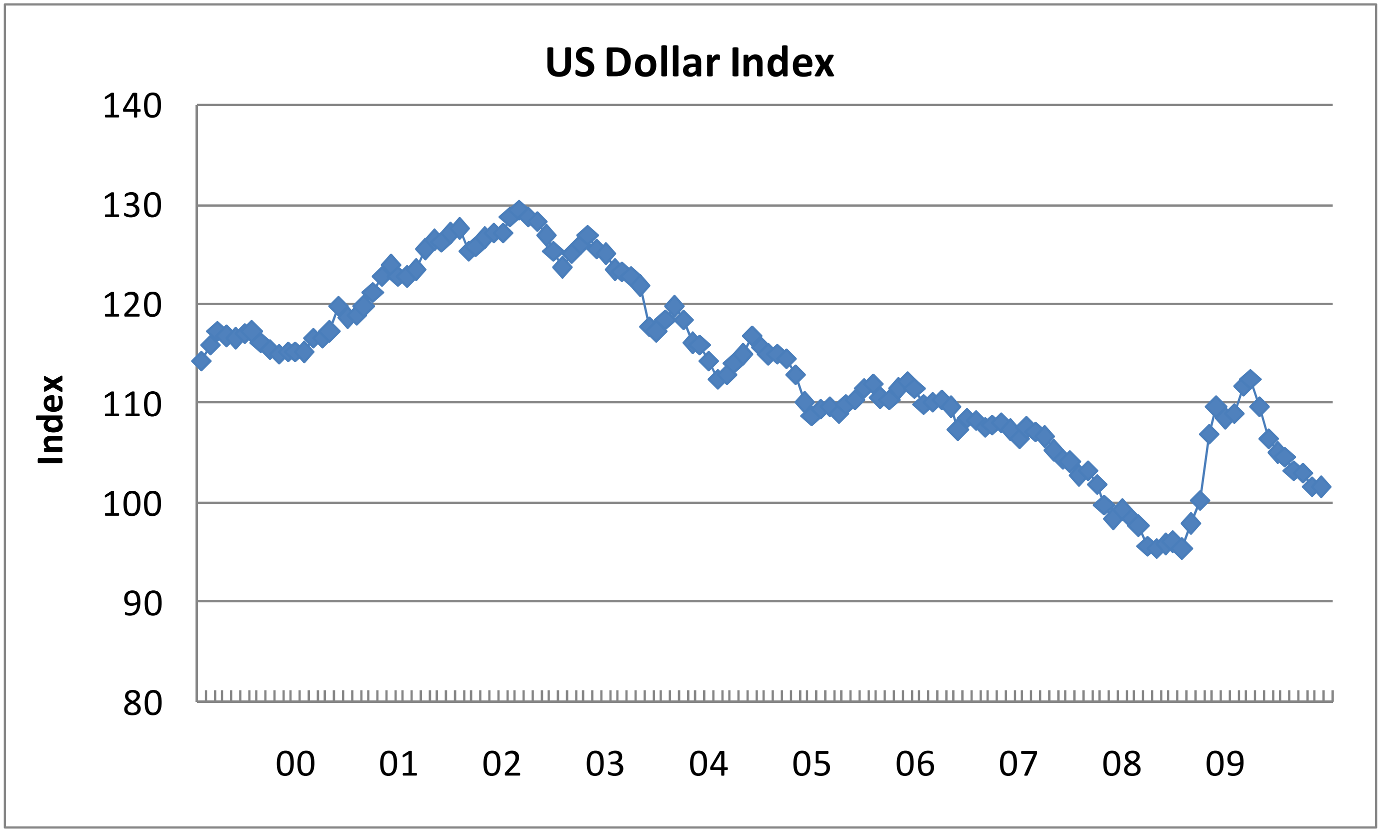


Projected '10 costs are +26% from history



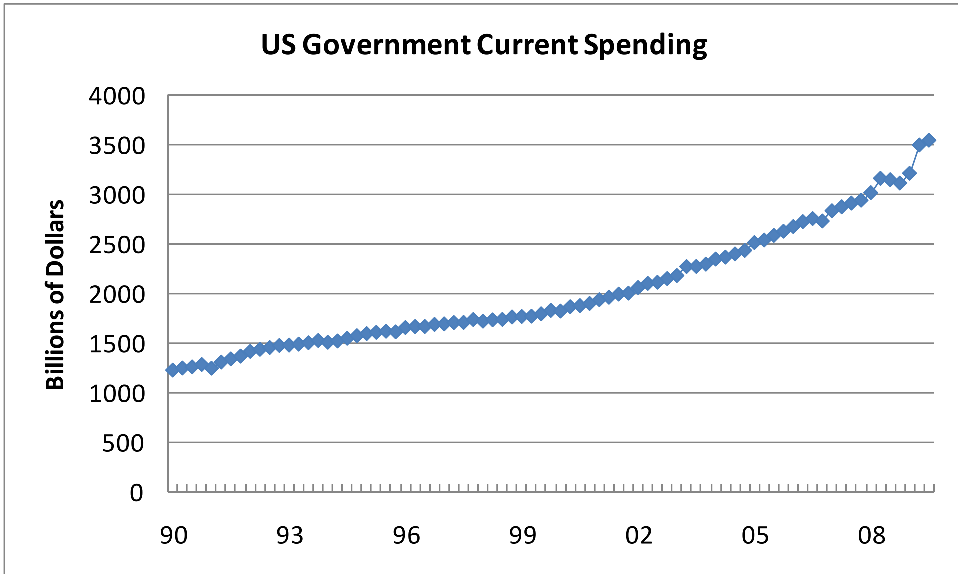
*Based on relationsip between ISU Estimated Costs & Returns data and historic Omaha corn and Decatur soybean meal prices

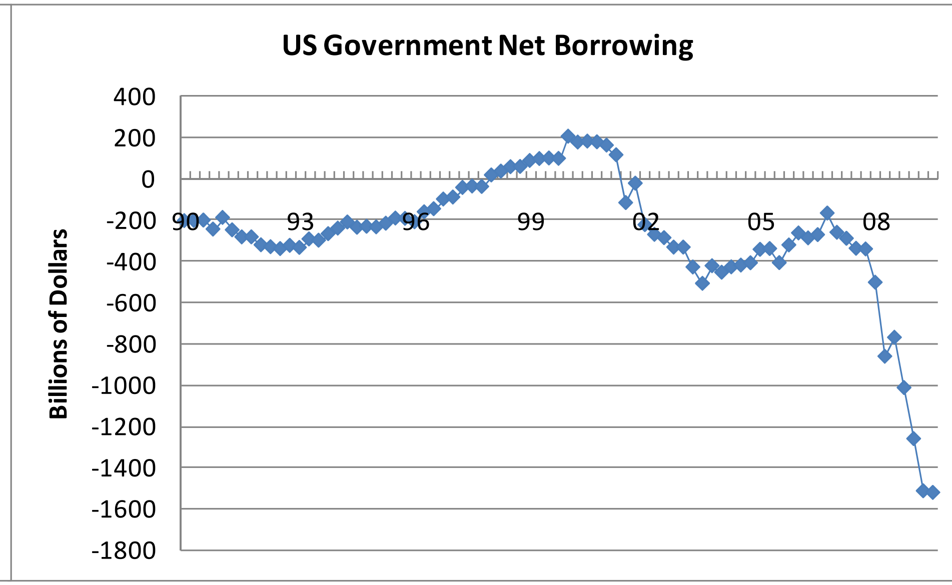
Exchange Rates: Two stories for the same year



- C$ appreciation since 2003 is due to US depreciation
- Rapid appreciation in late 2008…"safe haven"???
- Depreciation due to fiscal and monetary policies…not so "safe"

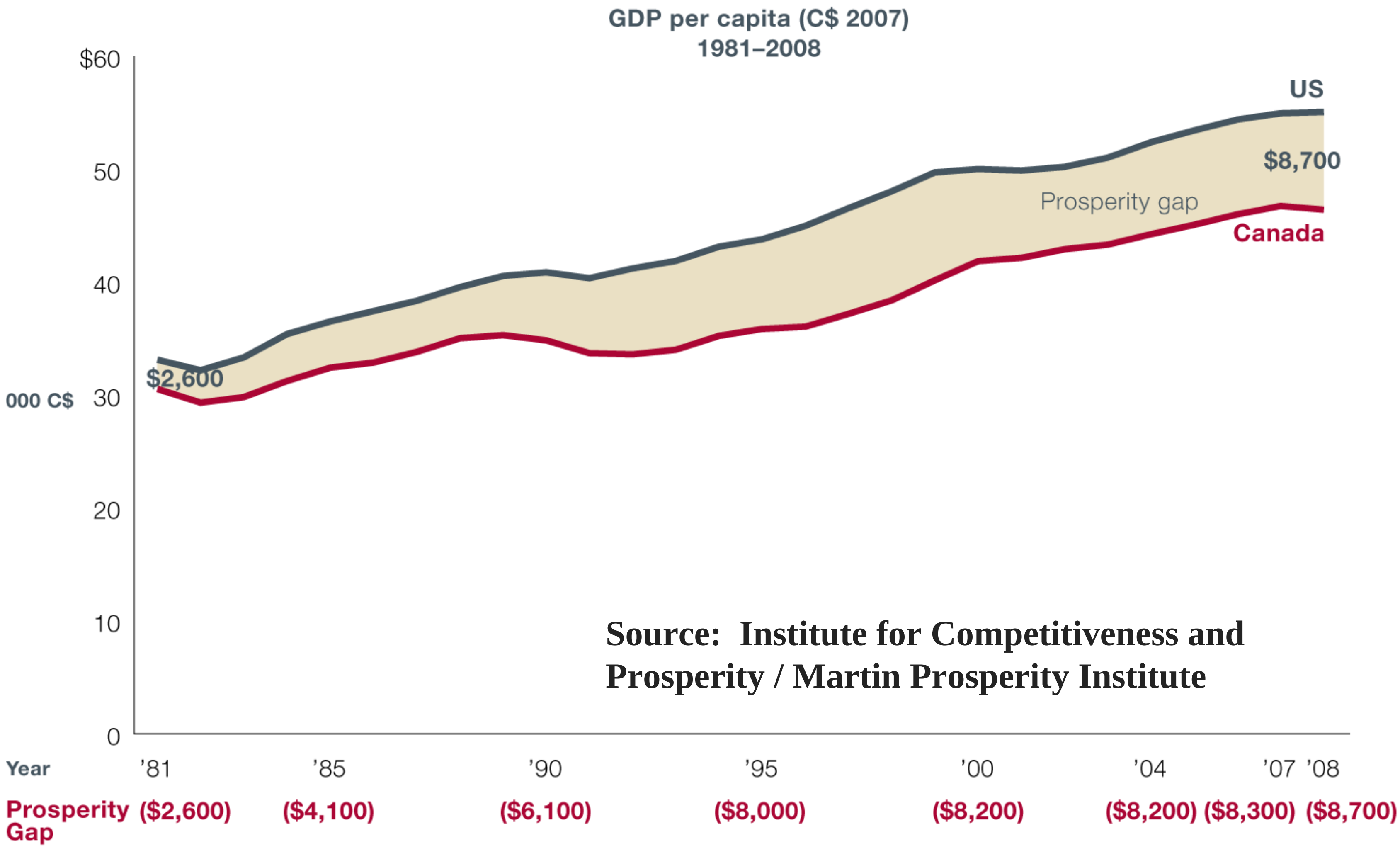
Government Spending Like Never Before





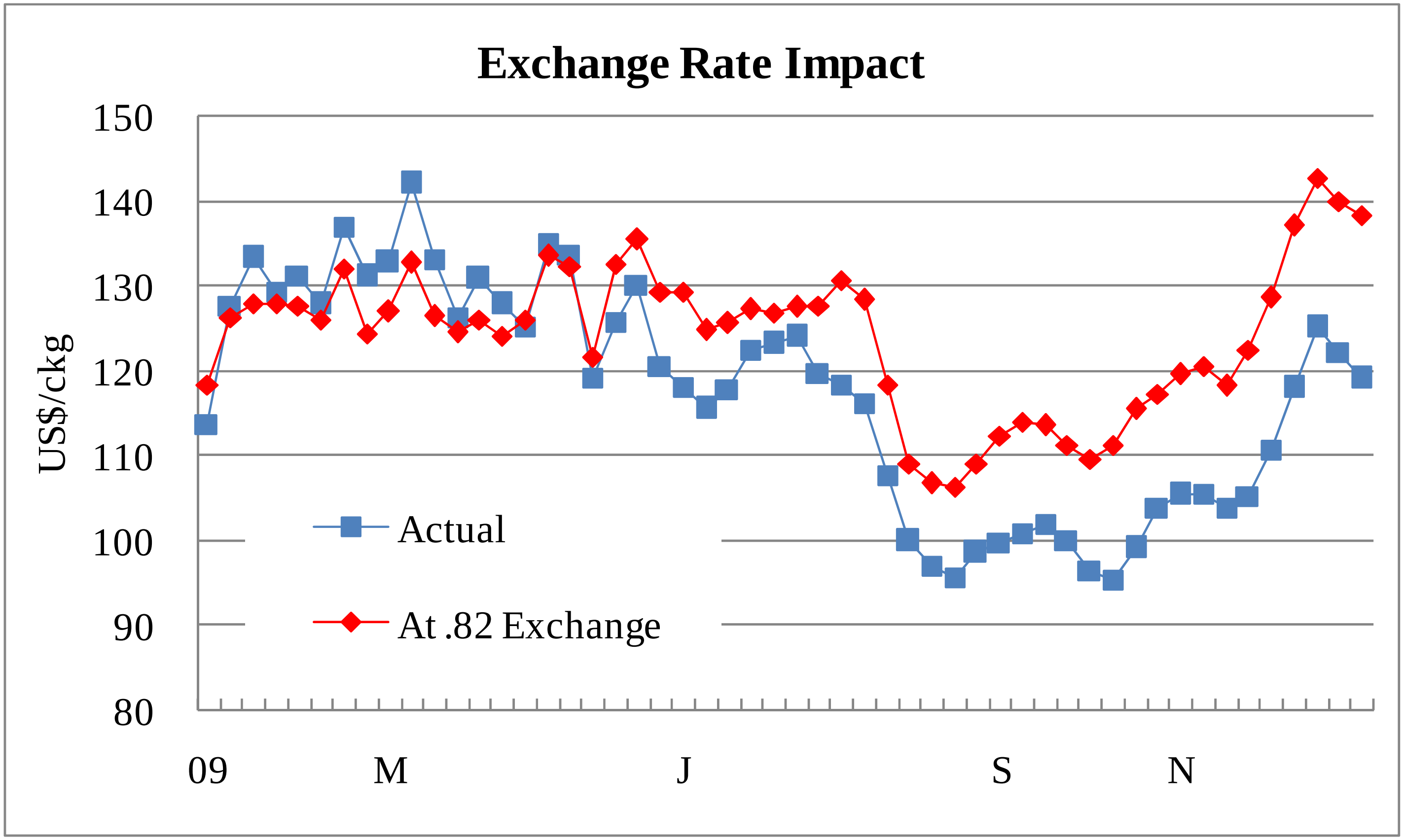
- Ramifications:
  - Crowding out private borrowing and investment
  - Nervous international dollar holders (China)
  - Ongoing USD weakness...?
  - Cdn banks expecting parity or more in 2010

Canada Trails The U.S. In GDP Per Capita



Source: Institute for Competitiveness and Prosperity / Martin Prosperity Institute

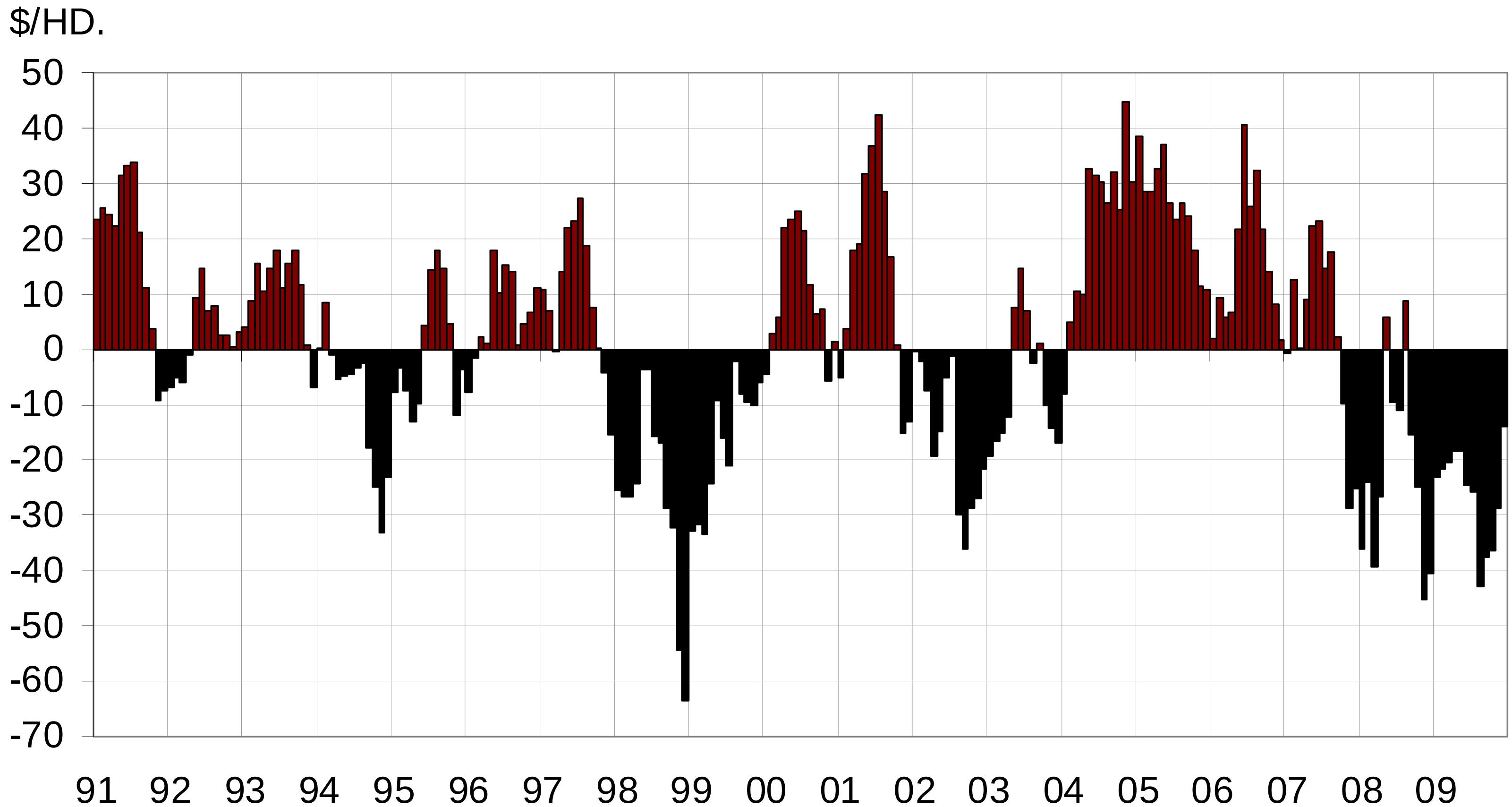
Huge pricing impact



- 2009 C$ appreciation cost producers $15-20/head

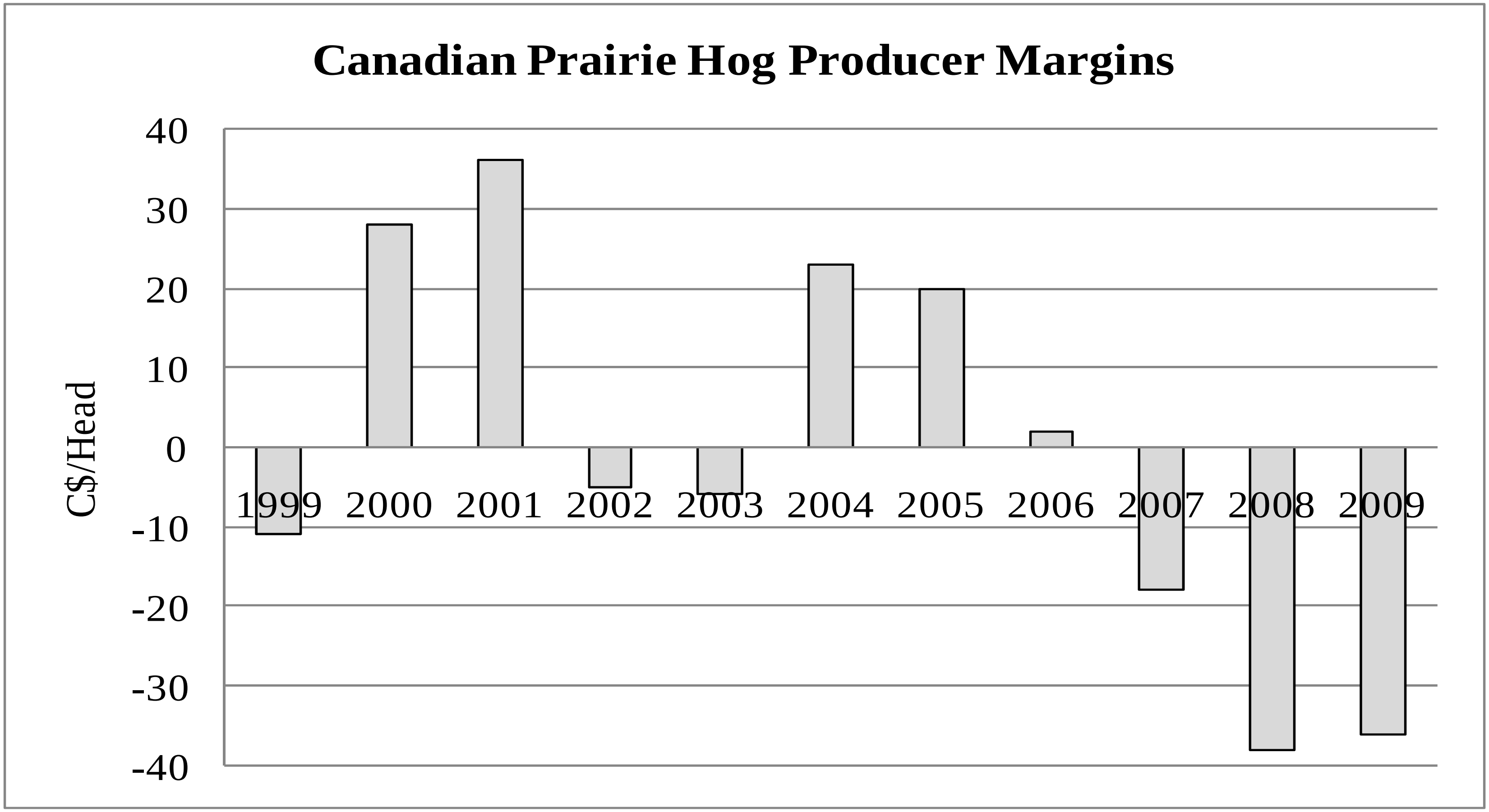
'08-'09 losses have been the worst ever

PROFIT PER HEAD
IOWA FARROW-TO-FINISH OPERATIONS



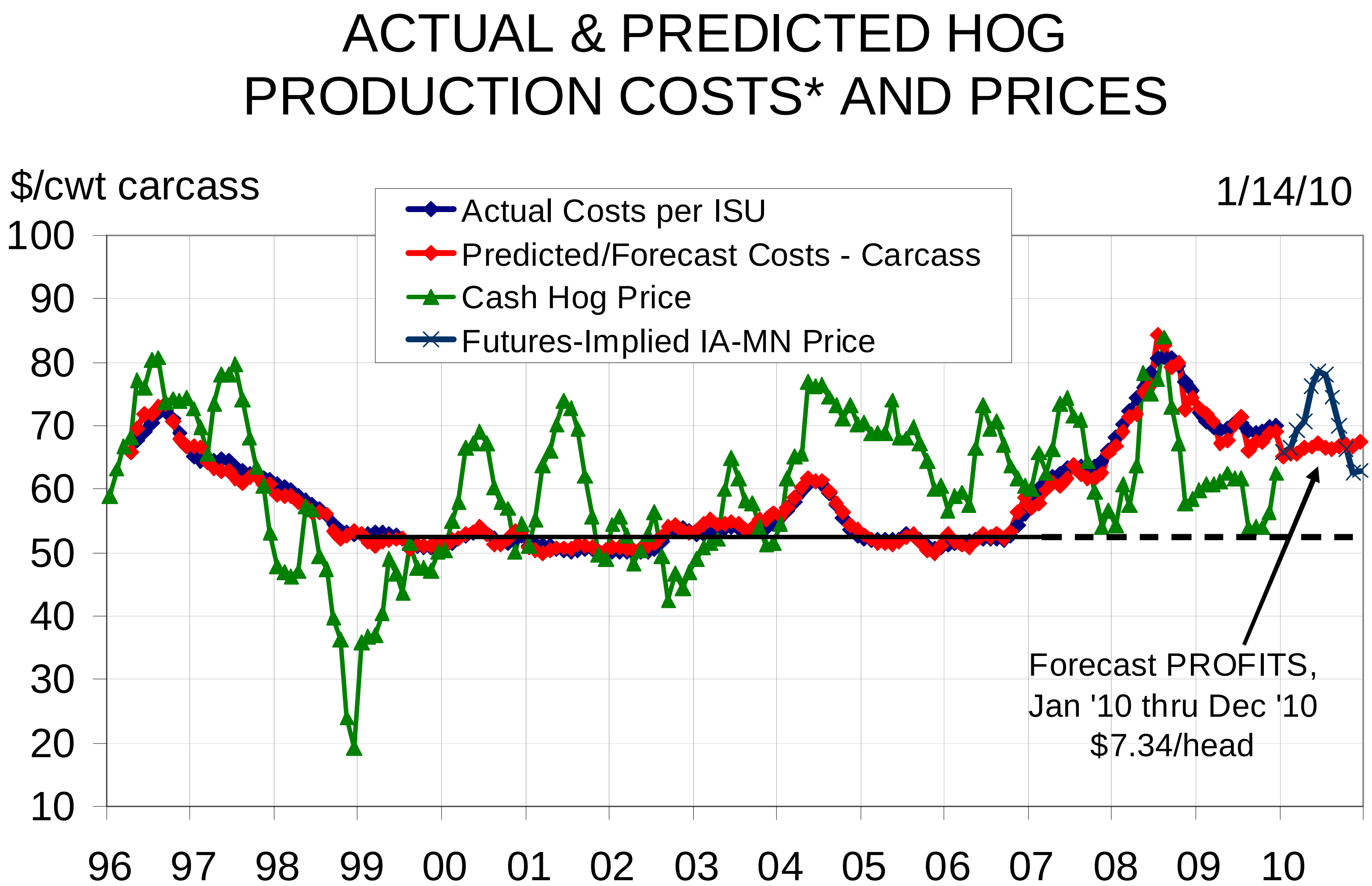
Source: Estimated Costs and Returns, Dr. John Lawrence, Department of Economics, Iowa State University

Challenges have been even longer in Cda



- Canadian producers have been in a loss position in five of the last ten years.
- During the past ten years, producers have been in a breakeven position on average.
- In the last four years, producers have lost over $20 dollars per head on average.

Recent LH rally has PROFITS for 2010



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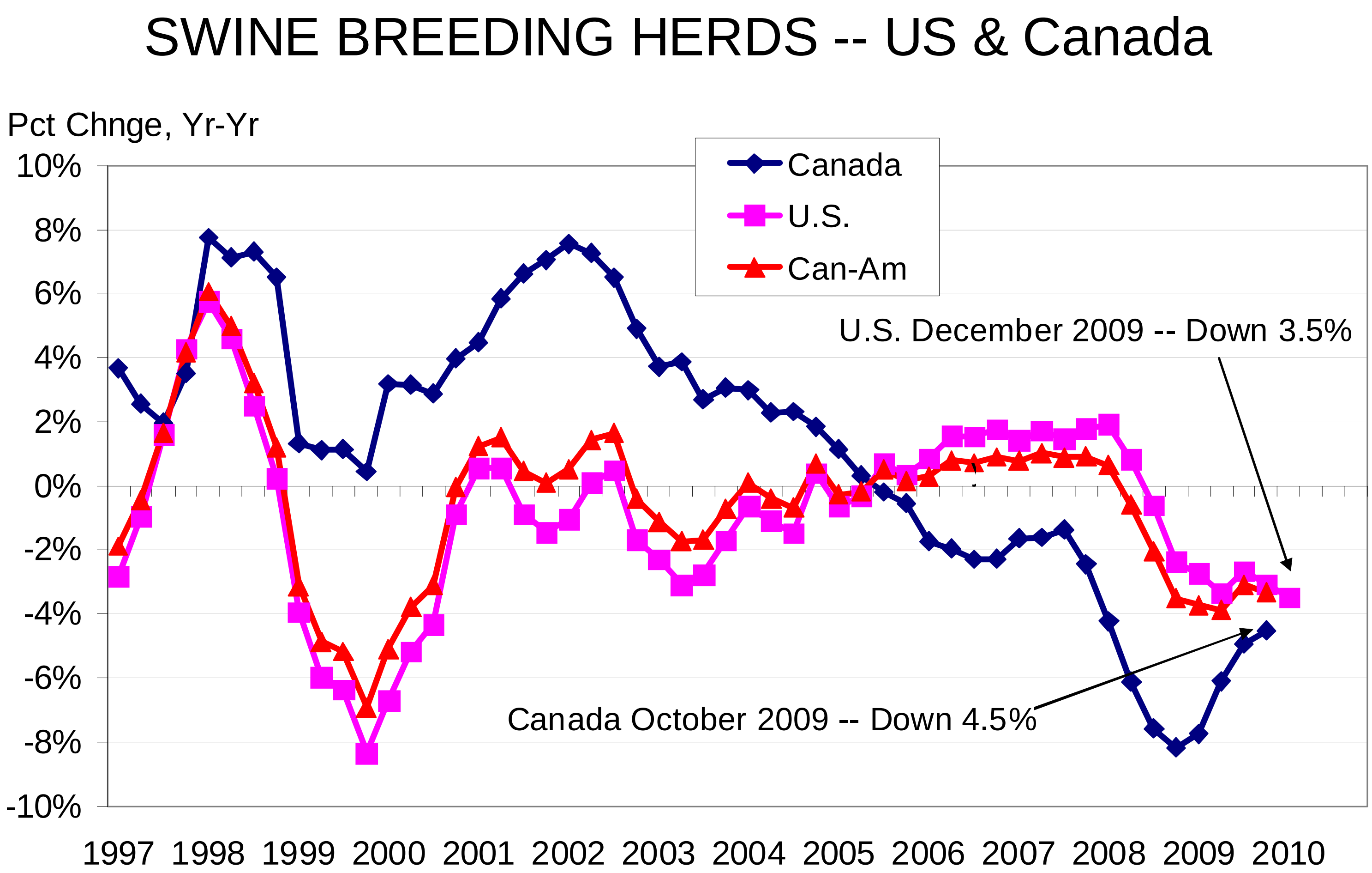
U.S. breeding herd is declining . . .

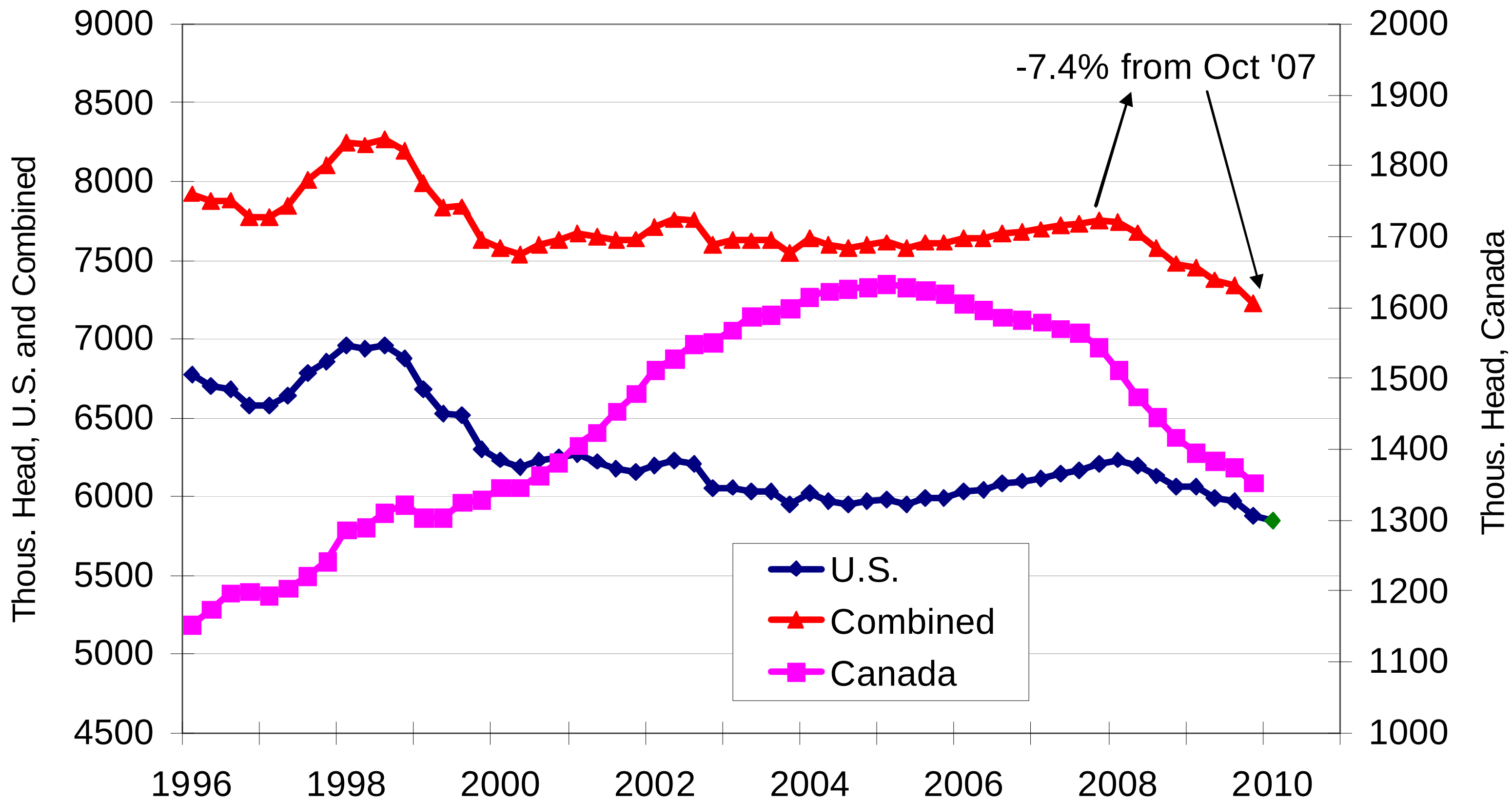
. . . down 6.1% (383,000) from peak of Dec '07



Canada is down 280,000 from Jan '05 . . .

. . . Putting the total down 523,000 or 7.4%

SWINE BREEDING HERDS: U.S., CANADA & COMBINED



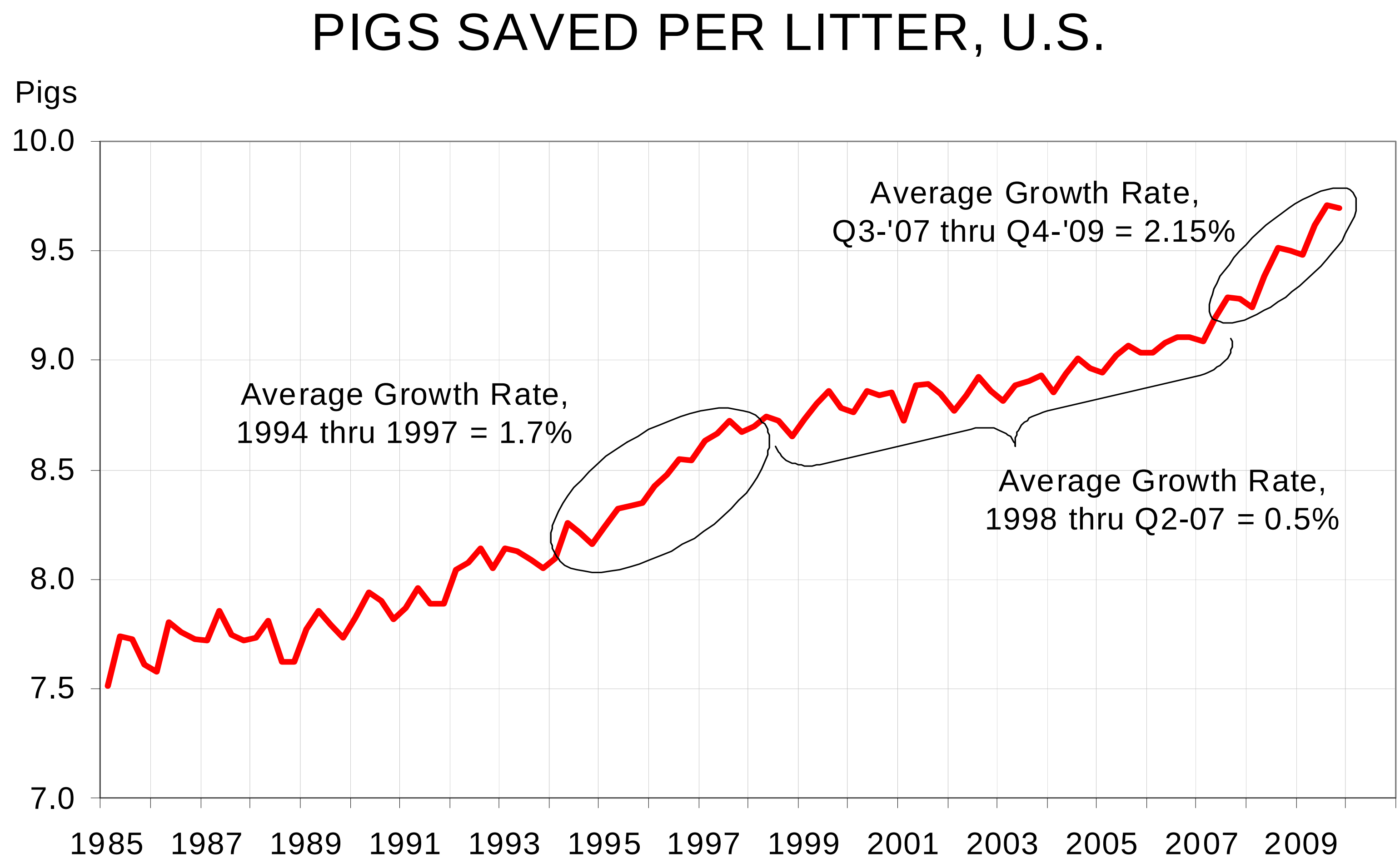
Paragon Economics, Inc.

George Morris Centre

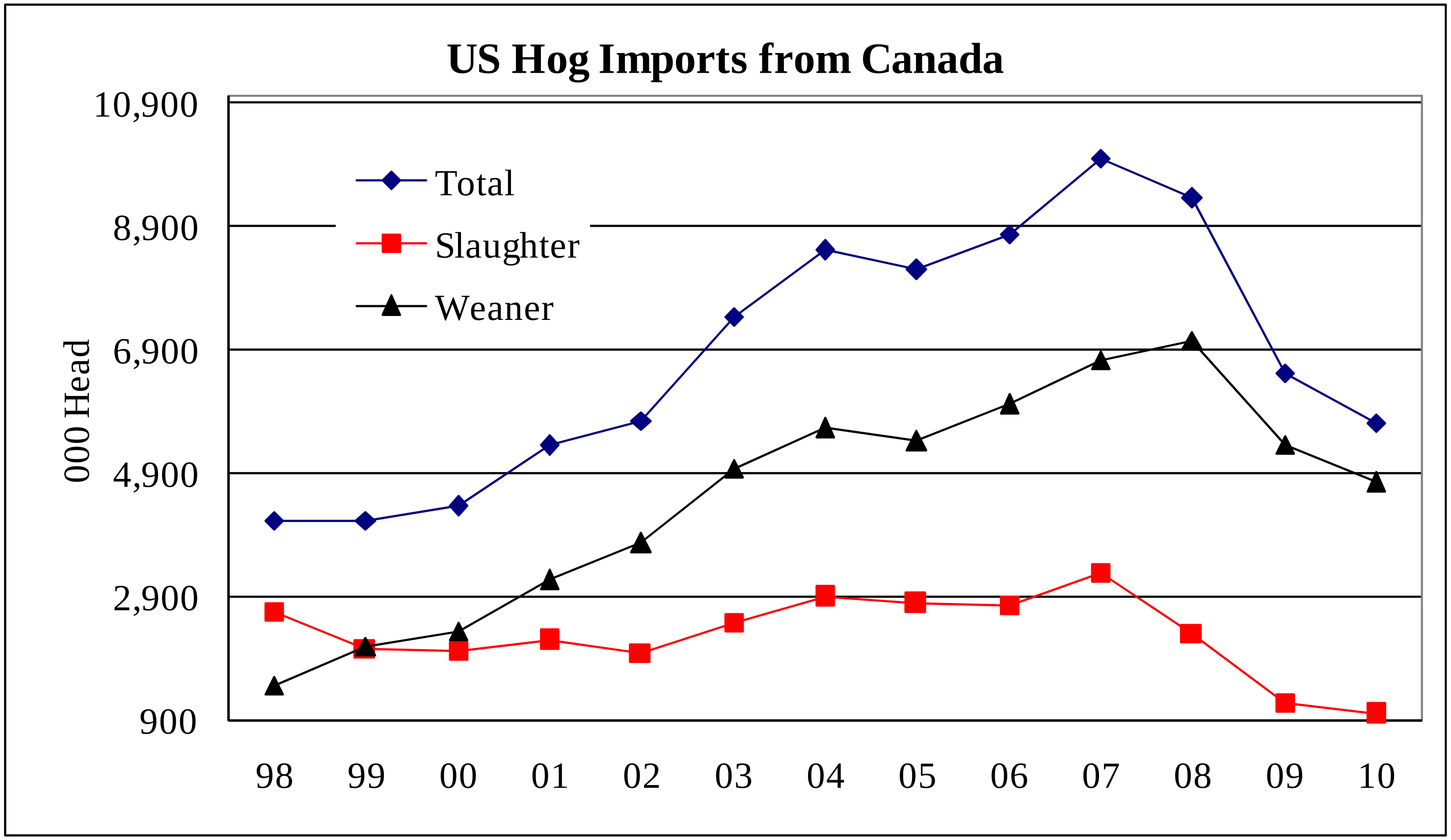
From information, knowledge

But rapidly rising productivity leaves . . .

. . . projected supplies only slightly smaller



US packers will see fewer Cdn hogs again



- Slaughter hogs down 50%; w/f down 25% in 2009
- Down another 10+-% in 2010
- 10% of US industry in 2007, 7% in 2009

COOL was the major reason behind the '09 decline

- COOL has been far more successful in keeping hogs out than even the most protectionist producer could have dreamed.
- Last straw for many Cdn operations
- US packers and feeders are adopting...lower supplies mean less discrimination
- Continued, useless, burden on both sides of the border

SRM 2010 U.S. slaughter forecast: -1.4%

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

Higher prices than '09 – but lower than LHs

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
						1/14/10
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**	**69.05**
	Q2	**63 - 67**	**70 - 74**	**61 - 64**	**68 - 72**	**76.47**
	Q3	**66 - 70**	**69 - 73**	**65 - 68**	**66 - 70**	**77.58**
	Q4	**61 - 62**	**64 - 68**	**63 - 67**	**60 - 64**	**68.18**
	Year	**62 - 66**	**66 - 70**	**61 - 65**	**63 - 67**	**72.82**

[1]Converted to carcass using a yield of 75% | *Partial USDA data | **Average of CME Lean Hog Index

Where will we be "After the Dust Settles"? . .

- The NA 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
- US more scrutinized and regulated
- More dependent on international markets

Domestic U.S. 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 positve!

- 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

Remember the Strengths that brought Cdn Growth…Still here

- Animal Health (absence of disease)
  - Performance
- Climate
  - Performance
  - Diversity/Opportunities
- Competitively priced feedgrains
- Animal density
  - Lack of Human conflict
- Access to markets
- Access to labor

After The Dust Settles:

- There will be viable, competitive N.A animal protein sectors
- They will be smaller
- Many operational choices will be limited – higher costs
- N.A. consumers will be forced to pay more for animal proteins in particular and food in general – Will they stand for it?

QUESTIONS

AND

DISCUSSION