

Global Price and Production Forecast

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■ Introduction

Last year, 2008, saw record feed prices and record hog slaughter - certainly not a good combination for hog producers. Pork producers have lost money 13 of the last 15 months and appear likely to suffer losses much of the time during the coming year. Fortunately, corn prices have fallen sharply from last summer's peak and hog slaughter is headed lower.

Profit is, of course, the difference between market price and cost of production. The key forces driving hog prices are exchange rates, pork trade and the health of the economy. The key forces driving cost of production are energy prices and biofuels policy. Unfortunately, none of these forces are within the control of hog producers. Additionally, the turmoil in the financial markets makes economic forecasts particularly unreliable at this time.

■ Feed Prices

Other than the price of hogs, the single most important commodity price for pork producers is corn. Historically, corn prices have been driven mostly by weather related yield fluctuations and demand from livestock for feed. The ethanol industry has linked corn prices to gasoline prices. Corn prices have been on a roller coaster ride for the last 48 months. Omaha, Nebraska corn prices were under \$2/bushel in early September 2006. Corn was under \$3/bushel in early October 2007, but above \$7/bushel in late June and early July 2008. Yet, by mid October, corn was back under \$4/bushel in Omaha. Ethanol prices have become the key driver of corn prices.

The rapidly expanding ethanol industry has more than doubled corn prices and driven up the cost of producing slaughter hogs by 50%. The era of \$40/cwt breakevens for U.S. hogs has been replaced by \$60/cwt cost of

production. If crude oil prices stay well under \$100/barrel, then ethanol prices should stay low enough to keep corn under \$5 per bushel. The breakeven price for U.S. slaughter hogs in 2009 is likely to average close to 55 cents per pound of live weight or 72 cents per pound of carcass. Because of high feed costs, market weights for slaughter hogs have been lower than last year causing the 2008 increase in pork production to be slightly smaller than the increase in hog slaughter. Hog slaughter weights in 2009 should be slightly higher than 2008's level.

■ Exchange Rates

Since international trade in both pork and live hogs is extremely important to U.S. and Canadian producers, what happens to exchange rates has a major impact on profitability. The Canadian dollar weakened relative to the U.S. dollar during the late 20th and early 21st century. In October 1991, one U.S. dollar equaled 1.13 Canadian dollars. By January 2002, one American dollar would buy 1.6 Canadian dollars. The Canadian hog industry prospered and grew rapidly during this timeframe. As long as the U.S. dollar remained strong, shipping hogs or pork south worked very well for Canada. However, the U.S. dollar began to weaken in 2002 and by November 2007 had reached parity with the Canadian dollar. The strong Canadian dollar devalued hog and pork exports and created a hardship for Canadian producers. Conversely, the weak U.S. dollar has been beneficial for U.S. producers. In late 2008, the U.S. dollar was very weak relative to the Japanese Yen. Historically, a strong Yen has been good for U.S. pork exports.

■ International Trade

Both the U.S. and Canada hold very strong positions in world pork trade. The U.S. is the world's largest pork exporter followed by the 27-member European Union, then Canada and Brazil. Over the last five years, U.S. pork exports have increased by 200%, E.U. exports are up 23%, Canadian exports have increased by 10% and Brazil has increased its pork exports by 12%.

Pork trade was a surprising gift to U.S. hog producers in 2008. Although U.S. pork exports had increased for 17 straight years, last year's exports were way up. With U.S. hog slaughter up 7% from 2007, one should have expected 2008 hog prices to be 14% or so lower than in 2007. However, 2008 U.S. hog prices were higher than in 2007. During the first eight months of 2008, U.S. pork imports were down 16% and pork exports were up 69%. This combination meant that although January-August pork production was up 8.8%, the supply of pork on the domestic market was down 1.4%. Because of a growing U.S. population, per capita supply was actually down over 2%.

The year's big increase in U.S. pork exports was due, in general, to a weak U.S. dollar and, in particular to strong demand from China. The weak dollar has made U.S. pork prices very competitive with other exporting countries. A shortfall in Chinese pork production due to high feed costs, "blue ear" disease, and natural disasters combined with strong demand (perhaps due to the Olympics) are likely reasons for their increased imports. U.S. pork exports were a billion pounds higher during the first half of 2008 than the same six months last year. Half of the increase in pork exports went to China or Hong Kong. Both Russia and Japan bought over 100 million pounds more U.S. pork in the first half of 2008 than during the same period last year.

Pork trade helped push August hog prices in the U.S. to record levels. Increased exports tightened domestic supply to the point that hog carcass prices in early August reached \$86/cwt and the pork cutout value reached \$94/cwt. Unfortunately, the early August price rally was followed by the fastest drop in prices in the last 10 years. Hog prices normally decline in late summer as daily pork production increases. But, it appears a slowdown in exports was the primary reason for the late August collapse in prices.

Over one-quarter of U.S. pork production was exported during May and June. Based on preliminary data, it looks like for 2008 the U.S. exported about 22% of its pork production.

USDA estimates 2007 Canadian pork production at 1.894 million metric tons (carcass weight equivalent) of which 1.033 million (54.5%) was exported. USDA estimates 2008 Canadian pork production at 1.845 million metric tons (carcass weight equivalent) of which 1.075 million (58.3%) was exported. USDA estimates 2009 Canadian pork production at 1.77 million metric tons (carcass weight equivalent) of which 1.08 million (61.0%) will be exported. Currency exchange rates are difficult to predict but will have a big influence on exports.

The U.S. imported a record 10 million Canadian hogs in 2007. Roughly two-thirds were feeder pigs and one-third were slaughter hogs. Imports of Canadian hogs started 2008 strong, but dropped rapidly, especially slaughter hog imports. It appears that 2008 imports from Canada were close to 9 million head of hogs and pigs. I expect 2009 shipments of live hogs to the U.S. to be close to 8 million head. A strong Canadian dollar in the last few years has made exporting to the U.S. much less lucrative which has led to a reduction in the Canadian swine herd. The October inventory survey by Statistics Canada reported an 8.1% decline in sow numbers.

USDA estimates the 2007 Canadian pig crop at 31.832 million head with 10.032 million (31.53%) exported. USDA estimates the 2008 Canadian pig crop at 30 million head with 9.07 million (30.23%) exported. USDA estimates the 2009 Canadian pig crop at 29 million head with 7.8 million (26.90%)

exported. The predicted sharp decline in live hog shipments to the U.S. may be due in part to the implementation of Country of Origin labeling (COOL) in the U.S.

■ Hog Cycle

The hog cycle has been a major force in the hog industry for over a century. Profitable times lead to an expansion in hog numbers that leads to low prices and a reduction in hog numbers that leads to higher prices. Although the average length of the hog cycle hasn't changed, there has been a steady decline in the amplitude of the hog cycle over the last 30 years. In the 1970s, a 20% year-over-year change in quarterly hog slaughter was not unusual. In this decade, it has been rare for quarterly U.S. hog slaughter to deviate more than 5% from year-earlier levels.

Historically, changes in U.S. hog slaughter have lagged profitability by an average of 15 months. The current period of red ink for U.S. hog producers began in October of 2007. Based on the historic hog cycle, one would expect hog slaughter to drop below year-earlier levels in January 2009, which is in line with USDA's September hog inventory survey.

Why are producers responding less to profitability today than they did in the past? Modern, large-scale hog production is simply not very flexible. Buildings are costly and time consuming to permit and build. Once built, there is little alternative but to operate them at capacity through good times and bad.

■ Inventory Surveys

The reduction in the U.S. breeding herd has begun. U.S. sow slaughter has been consistently above year-ago levels since mid 2007. Through October, 2008 U.S. sow slaughter was up nearly 8% compared to the same 10 months in 2007. Gilt slaughter data collected by my colleague, Glenn Grimes, indicates fewer gilts are being retained for breeding than are needed to hold sow numbers constant.

USDA's Hogs and Pigs report indicates the swine breeding herd on September 1 was 2.6% below year-earlier levels. The Canadian sow herd was 8.1% below year-earlier levels on October 1, 2008. The combined data on US and Canadian farrowing intentions indicate that third quarter litters farrowed were 2.0% below last year (down 1.8% in the U.S. and down 3.0% in Canada) and fourth quarter 2008 farrowings were 6.0% lower than a year earlier (down 5.5% in the U.S. and down 8.0% in Canada). However, given

the trend to larger litter size, the decline in the pig crop will be significantly smaller than the decline in litters farrowed.

Pigs per litter in the U.S. have been above year-earlier levels for the last 20 quarters and has been up by more than 1.7% for the last 5 quarters. Pigs per litter in Canada have been above year-earlier levels for every quarter for more than a decade.

■ **Pork Demand**

Last year was not a good one for domestic pork demand in the U.S. Both deflated retail pork prices and per capita pork consumption were lower than in 2007. My 2008 pork demand index was down nearly 4% compared to the year before. Domestic pork demand is expected to stay weak for a while. Slow economic growth and high energy prices have left U.S. consumers with fewer dollars to buy food. Declining oil prices are good news for the economy, consumers and pork producers.

Pork prices should get support from other meats in coming months. Spring and summer placements of cattle into feed yards were down which implies fall and winter fed cattle slaughter will also be down. The poultry industry was quick to respond to the run up in feed costs by slowing the rate of flock expansion.

After being up 3.6% in 2008, U.S. red meat and poultry production is expected to be down 1.1% in 2009. USDA is forecasting an across the board decline in meat production next year. They expect 2009 pork production to be down 1.6%, beef production to be down 0.2%, broiler production to be off 1.1%, and turkey production to be 2.4% lower than in 2008. If this happens, it will be the first year since 1973 that production of each of these four meats has been down.

■ **Forecast for 2009**

USDA's Foreign Ag Service in October forecast that world pork production in 2009 will be 1.2% higher than in 2008 with China increasing their production by 3.2% and the rest of the world reducing production by 0.5%. The European Union, United States and Canada are expected to account for most of the reduction.

Table 1. Change in Pork Production & Pork Exports - Top 11 Pork Producing Countries, 2009 vs. 2008 (Source: USDA/FAS)

Country	Pork Production		Pork Exports	
	1000 metric tons	%	1000 metric tons	%
China	+ 1,406	+ 3.2	- 28	- 14.1
EU- 27	- 200	- 0.9	- 50	- 3.3
U.S.A.	- 175	- 1.6	- 99	- 4.1
Brazil	+ 105	+ 3.4	+ 30	+ 4.4
Russia	+ 140	+ 6.9		
Vietnam	0	0		
Canada	- 75	- 4.1	+ 5	+ 0.5
Japan	- 5	- 0.4		
Philippines	+ 10	+ 0.8		
Mexico	+ 28	+ 2.4	+ 5	+ 5.9
S. Korea	0	0	- 1	- 6.2
WORLD	+ 1,152	+ 1.2	- 130	- 2.1

My forecast for 2009 has a slightly larger cutback in U.S. pork production and a slightly smaller cutback in Canada. Canada will produce fewer pigs in 2009, but I expect this to have a bigger impact on live hog exports than on domestic hog slaughter.

Table 2. Actual and Forecasted Hog Slaughter, U.S. & Canada

		U.S.		Canada		Combined	
Year	Qtr	1000s	%YrAgo	1000s	%YrAgo	1000s	%YrAgo
2008	1	29,597	110.9	5,418	98.6	35,015	108.8
2008	2	27,942	109.5	5,237	101.3	33,179	108.1
2008	3	28,691	108.0	5,218	99.9	33,909	106.7
2008	4*	30,600	100.7	5,460	100.9	36,030	100.7
2008	Year*	116,830	107.0	21,303	100.2	138,133	105.9
2009	1*	29,000	98.0	5,400	99.7	34,400	98.2
2009	2*	26,600	95.2	5,220	99.7	31,820	95.9
2009	3*	27,970	97.5	5,120	98.1	33,090	97.6
2009	4*	30,050	98.2	5,330	98.2	35,380	98.2
2009	Year*	113,620	97.3	21,070	98.9	134,690	97.5
2010	Year*	112,600	99.1	21,000	99.7	133,600	99.2

*forecast

With reduced hog slaughter, 2009 hog prices should be higher than in 2008. However, if the weakness in the world's economy leads to a sharp decline in meat demand, then price improvement may be nonexistent.

Table 3. Forecasted U.S. and Canadian Prices

Year	Qtr	Iowa Barrow & Gilt Prices		Index 100 Hog Prices	
		U.S. dollars/cwt		C\$/cwt-dressed	
		live	carcass	Manitoba	Ontario
2008	1	39.89	52.49	45.09	43.60
2008	2	53.53	70.43	59.76	57.84
2008	3	57.51	75.67	66.86	67.64
2008	4*	42 – 44	56 – 58	49 - 52	55 - 60
2008	Year*	49 – 50	64 – 65	55 - 57	62 - 63
2009	1*	43 – 47	58 – 63	52 - 56	51 - 55
2009	2*	55 – 59	72 – 77	65 - 69	64 - 68
2009	3*	55 – 59	73 – 78	66 - 70	65 - 69
2009	4*	49 – 53	65 - 70	59 - 63	58 - 62
2009	Year*	51 – 55	67 – 72	61 - 65	60 - 64
2010	Year*	53 – 57	70 – 75	64 - 68	63 - 67

*forecast

■ Conclusion

Financial losses, due in large part to high feed prices, have caused both U.S. and Canadian hog producers to reduce the number of litters they are producing. This has led to an expected 2.5% decline in combined U.S. and Canadian hog slaughter during 2009. Reduced hog slaughter should lift 2009 hog prices closer to breakeven levels. The biggest uncertainty is the impact on meat demand of the developing global economic recession.