

Record 2006 Hog Slaughter and Pork Production Means Moderating Profits

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Hog slaughter is expected to reach 105.4 million head and pork production will expand to 21.1 billion pounds in 2006, both new records. Production is expected to rise by about two percent as a result of a moderate expansion of the sow head in the U.S., higher weaning rates, higher marketing weights, and an increase in the number of live hogs imported from Canada.

The rapid growth in pork exports over the past two years is also expected to falter in 2006 as U.S. beef exports are introduced to much of the world once again. Processor and retail marketing margins are expected to widen in 2006 and be another factor that reduces prices to producers.

Prices are expected to average near \$46 per live hundredweight for 51% to 52% lean carcasses. This compares with a \$50 price level in 2005. The highest prices are expected to reach near \$50 in the spring and move into the very low \$40s in late October and November.

Costs of production are anticipated to be slightly under \$40 for the year with moderate corn and soybean meal prices. If so, this means profits will average about \$6 per hundredweight for farrow-to-finish production. This compares with nearly \$9 in 2004 and an average near \$10 in 2005.

The extended period of profits beginning in the spring of 2004 and expected to extend through the end of 2006 means that retained earnings will be large and this will provide additional incentive for expansion. In addition, the financial scourge of 1998/1999 is finally seems to be behind the industry.

The Numbers

The U.S. inventory of hogs continues to be very stable. Total inventory numbers in the December report were up only .4 percent with the number in the breeding herd up .7 percent and the market inventory up only .3 percent (see Table 1).

Overall, the U.S. breeding herd has been trending lower as a result of the sow herd shifting to Canada and higher productivity. The U.S. breeding herd dropped from near 7 million head from 1998 to about 6 million head by 2002. Since 2002, the breeding herd has been in a narrow range from 5.9 to 6.1 million head. The .7 percent increase in the breeding herd in 2005 represents 42,000 head and is extremely small by historical standards, but is the largest annual increase since 2000 when the herd was up only .4 percent.

Where are those 42,000 added sows? The evidence points surprisingly to the Eastern Corn Belt (ECB). The region had an increase of 35,000 head, and four of the five states in the ECB also increased in 2005. These were: Indiana (+20,000); Illinois (+10,000); Ohio (+10,000); and Wisconsin (+5,000). Only Michigan had a reduction of -10,000.

Perhaps this is signaling a reversal of the longer-run trend of breeding herd reductions in the ECB. In 1990, 27 percent of the U.S. breeding herd was in the ECB. That portion declined steadily until 2004 when the region accounted for only 17.2 percent. The recovery in 2005 has put the portion back up to 17.7 percent. Two possible explanations are that packing capacity has increased somewhat in the Eastern Corn Belt and may have stimulated some additional sows. Secondly, the Western Corn Belt (WCB) has seen a rapid increase in the use of corn for ethanol production in recent years while the ECB has not had a similar surge (although the ECB appears to be in “catch up mode” since mid-2005). There is some evidence that this has increased corn prices in the WCB, especially around those new plants and may have served to reduce the incentives to expand hog numbers in the WCB.

So, is the ECB coming back? It is too early to tell from the data, but it will be interesting to watch in coming years.

So What Happened to Demand

The strength of hog and pork prices from the spring of 2004 through this past summer came largely as a result of growing pork demand both in the export market and in the domestic market. For 2005, the available pork per person was down about three percent in the domestic market yet prices were down about five percent (from \$52.51 in 2004 to \$50.00 in 2005). If per capita supplies were down, yet prices were also down this would seem to indicate a reduction in domestic demand.

Growth in export demand was robust again in 2005 (data is available only through October at this writing). U.S. pork exports expanded by 23 percent in 2005, following a 27 percent increase in 2004. At the same time pork imports dropped as well, falling by nine percent in 2005, and by seven percent in 2004. Thus the pork trade surplus in 2004 was 5.3 percent of U.S. production and rose to 8.2 percent of U.S. production in 2005. Over the past two years, pork trade has increased pork utilization by 5.5 percent of production. So, pork trade is clearly not the reason for lower hog prices in 2005.

Domestic pork production per person was down in 2005. While total pork production rose by .7 percent, population growth was near one percent, thus the reduction in production per person. This tells us that supplies were not the reason for lower hog prices.

The two components of price that were likely to have led to lower hog prices in 2005 were higher marketing margins and some weakness in domestic demand. Preliminary data for 2005 show that marketing margins increased by seven cents per retail pound compared to 2004. This means that producers received a smaller share of the retail dollar. In 2004, producers received an unusually large portion of the retail pork dollar at 33

percent. In 2005 that portion was reduced to about 31 percent and accounted for about \$4.00 per live hundredweight in lower U.S. farm prices. Domestic demand appears to have edged somewhat lower in 2005 as well, perhaps contributing about \$.75 per live hundredweight to lower prices.

So the price strengthening components for 2005 were pork trade and moderately lower per capita domestic pork production, while the price diminishing factors were higher marketing margins and somewhat weaker domestic demand.

Unfortunately for 2006 some of these components will weaken again. First net trade is not expected to grow much in 2006, after the huge increases of 2004 and 2005. The reason is the opening of the Asian market to beef. USDA expects a modest four percent increase in pork exports, but that may be too optimistic if Asian nations shift some of their large pork purchases back to beef in 2006.

The second negative component for 2006 is further increases in marketing margins. I am expecting marketing margins to increase about 6 to 8 cents in 2006 and this will have some added dampening effect on live hog prices.

Pork Supplies and Prices

Pork production in 2005 was up only .7 percent, but is expected to increase by about two percent in 2006. The number of head available for slaughter is expected to reach a record high of 105.4 million head, an increase of 1.8 percent from last year. This results from a combination of a small increase in U.S. sows farrowed, increased pigs per litter, and some increase in the number of pigs from Canada. Weights are expected to be up by about .3 percent in 2006, to make total pork production in the U.S. up around 2.1 per cent (see Tables 2, 3 and 4).

In the first-half of the year, production is expected to be up by just one percent. However, production in the last-half of 2006 may rise by about three percent. This likely will mean that the highest prices will come in the first-half of the year with weaker prices in the last-half.

Prices on a live basis for 51% to 52% lean carcasses averaged near \$50 in 2005. With larger production, slowing pork export growth, rising Canadian live hog imports, and widening U.S. marketing margins, hog prices are expected to drop to an average closer to \$46. Winter prices are expected to average in the mid-\$40, and move into the higher \$40s for the spring quarter. Summer prices may be a bit discouraging this year having averaged above \$50 for the past two years. For the third quarter this year, I expect prices to begin July near \$50 per live hundredweight, but weaken to below \$45 by the end the end of the quarter at the close of September. Fall prices are expected to drop further, and average in the \$42 to \$45 range.

PRODUCTION			Percent
Year	Quarter	Production Million#s	Change vs. Year-ago
2003	I	4,898	2.5%
	II	4,741	-1.2%
	III	4,807	-0.5%
	IV	5,499	4.0%
	Year	19,945	1.2%
2004	I	5,130	4.7%
	II	4,897	3.3%
	III	5,046	5.0%
	IV	5,435	-1.2%
	Year	20,508	2.8%
2005	I	5,136	0.1%
	II	5,022	2.6%
	III	4,999	-0.9%
	IV	5,504	1.3%
	Year	20,661	0.7%
2006	I	5,204	1.3%
	II	5,077	1.1%
	III	5,170	3.4%
	IV	5,655	2.7%
	Year	21,105	2.1%

PRICES			Liveweight	Percent
Year	Quarter	Price \$/cwt.	Price	Change vs. Year-ago
2003	I	\$35.38		-10.3%
	II	\$42.64		21.9%
	III	\$42.90		26.7%
	IV	\$36.89		17.5%
	Year	\$39.45		13.0%
2004	I	\$44.18		24.9%
	II	\$54.91		28.8%
	III	\$56.58		31.9%
	IV	\$54.35		47.3%
	Year	\$52.51		33.1%
2005	I	\$52.24		18.2%
	II	\$52.09		-5.1%
	III	\$50.51		-10.7%
	IV	\$45.16		-16.9%
	Year	\$50.00		-4.8%
2006	I	\$45.51		-12.9%
	II	\$48.25		-7.4%
	III	\$46.42		-8.1%
	IV	\$43.53		-3.6%
	Year	\$45.93		-6.0%

Profit Prospects

Profit prospects deteriorated a bit in late 2005 with a weaker hog price forecasts and with greater increases in corn and soybean meal prices than had been anticipated. But, the year still appears to one of continued profitability for farrow-to-finish producers.

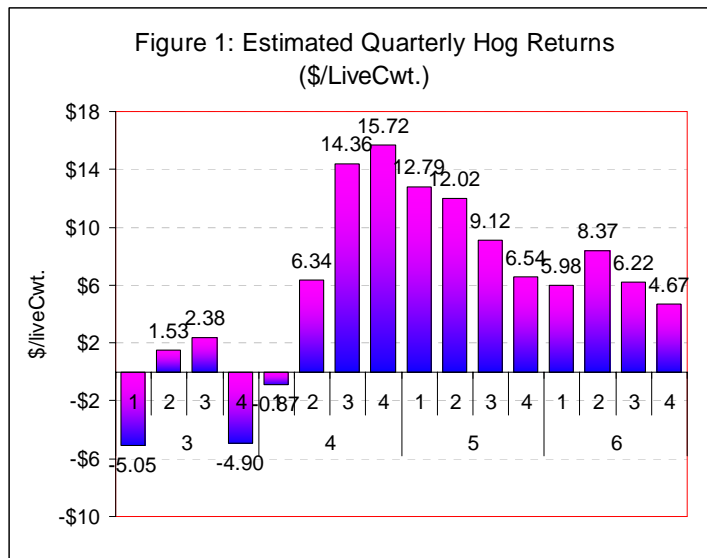
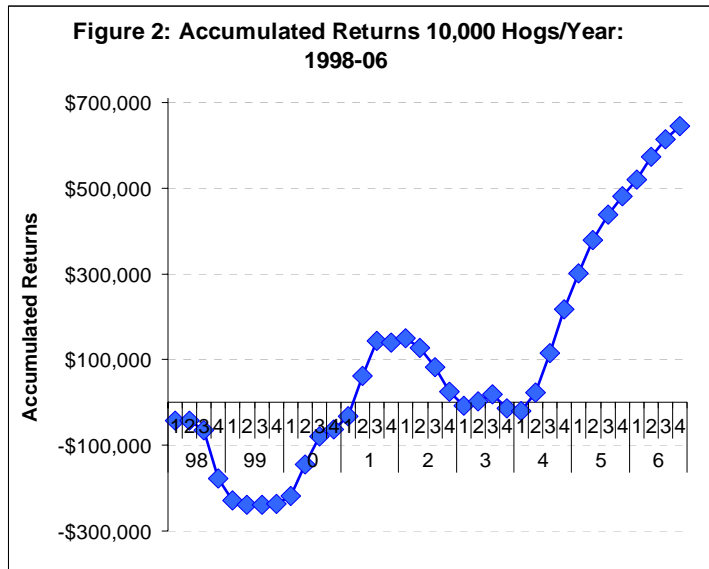


Figure 1 provides my estimates of quarterly profitability from 2003 through 2006. In 2004, the industry garnered \$8.90 per live hundredweight of estimated profits. That number rose to \$10.10 per live hundredweight in 2005, and is expected to drop to an average about \$6.30 in 2006.

If this forecast holds valid, the industry will have operated at a profit for 11 consecutive quarters dating back to the spring of 2004. By historical

standards this is an unusually long period of unbroken profitability. Especially given that this level of profitability has still not resulted in a sizable build-up of the breeding herd.

Many still relate the current run of good profits back to the massive financial difficulties of 1998 and 1999. The hypothesis is that the losses were so large and painful at that time that a psychological barrier to expansion has existed since. To shed some light on this question, I have tracked the financial consequences for a producer of 10,000 head of hogs per year (about a 500 sow operation) in continuous operation from the start of 1998 through 2006. You can see that losses by mid 1999 had mounted to nearly \$300,000. Also, recognize that by the first quarter of 2004, the operation was just about at zero. What this means is that the losses of 1998/1999 had been covered and during the long



period from 1998 to early 2004 the producer had no accumulated profits above normal costs of production.

With the long run of profits starting in the spring of 2004, the producer would have garnered profits of about \$500,000 by the end of 2005. In 2006, those profits are expected to accumulate to near \$700,000. While this is an oversimplification in that it does not consider the income tax consequences of losses and

profits, it does help to illustrate that most pork producers now have overcome the financial difficulties of 1998/1999 and are likely to have accumulated substantial retained earnings. Accumulated retained earnings may be a strong reason for existing producers to consider further expansion in 2006.

Implications for the Industry

The pork production industry has been on a profitable roll since the spring of 2004. It appears that positive returns will continue at least through 2006. Hog prices for the year are expected to average near \$46 on a live weight basis with costs of production a bit under \$40. Retained earnings have been accumulating for hog producers since the spring of 2004, and their improved financial health will likely lead to further expansion of the breeding herd in coming months.

The potential for greater expansion in 2006 could set the industry up for a more difficult profitability period in 2007 and 2008. However, expansion will have to be larger than is now indicated for pork supplies to drive away all profits. The other uncertainties in addition to the level of further expansion are what level of pork exports the U.S. will be able to maintain given the opening of U.S. beef exports in late 2005, and secondly how much marketing margins will increase in 2006 and 2007.

Slaughter hog numbers will reach record levels of 105.4 million head in 2006. This compares with about 100 million in 2002. There may be some concern for slaughter

capacity especially in the last quarter of 2006 when numbers are expected to reach 28 million head. However, several new plants have been added in recent years and other existing plants have expanded somewhat (see Steve Meyer's slaughter capacity estimates at <http://www.porkboard.org/porkfacts/porkFactPDFS/pg77.pdf>). The industry also has some flexibility especially with Saturday kill levels. Even if capacity is tight in the fall of 2006, USDA Hogs and Pigs inventory data should provide sufficient advance warning if numbers are going to be large. In addition, unlike 1998, the majority of hogs marketed today are under coordinated arrangements with packers. Thus, there is a much smaller likelihood of a mismatch between production numbers and slaughter capacity.

The late year rally in corn and soybean meal prices in 2005 seems over done relative to continued bearish fundamentals for both crops. If so, some reduction of those prices may be expected this winter. Of course, South American weather can impact those prices and the U.S. growing season in 2006 can be influential as well. However, very large anticipated ending stocks as of August 31, 2006 imply that a relatively major set-back in 2006 production will be required to move prices substantially higher.

Table 1. Hogs and Pigs in the United States, December 1, 2005

	2004	2005	2005 as % of 2004
	--- thousand head ---		percent
<i>Inventory</i>			
All hogs and pigs	60,975	61,197	100.4
Kept for breeding	5,969	6,011	100.7
Kept for market	55,005	55,186	100.3
<i>Market hogs by weight</i>			
Under 60 pounds	19,980	19,955	99.9
60-119	13,439	13,552	100.8
120-179	11,186	11,266	100.7
180 and over	10,401	10,414	100.1
<i>Sows farrowing</i>			
Sept 05-Nov 05	2,888	2,888	100.0
Dec 05 - Feb 06 ¹	2,835	2,877	101.5
March 06 - May 06 ¹	2,882	2,890	100.3
<i>Pigs saved per litter</i>			
June 05 -Aug 05	9.01	9.06	100.6
Sept 05-Nov 05	8.96	9.03	100.8
<i>Pig crop</i>			
June 05 -Aug 05	26,162	26,276	100.4
Sept 05-Nov 05	25,881	26,080	100.8

¹ IntentionsTable 2. U.S. Market Hogs Weighing 60 to 179 Pounds on Dec 1 (previous year)^c, and Commercial Slaughter in Calendar Quarter from January through March

	<i>1,000 Hd Inventory</i>	<i>1,000 Hd Slaughter</i>	<i>Ratio</i>
1990	21,856	21,883	100.1
1991	21,847	21,508	98.4
1992	23,351	23,802	101.9
1993	23,266	23,057	99.1
1994	22,871	22,746	99.5
1995	24,028	24,229	100.8
1996	23,510	23,650	100.6
1997	22,402	22,342	99.7
1998	24,507	24,776	101.1
1999	25,216	25,571	101.4
2000	24,180	25,019	103.5
2001	23,779	24,578	103.4
2002	23,668	24,148	102.0
2003	23,908	24,654	103.1
2004	24,347	25,717	105.6
2005	24,625	25,529	103.7
2006	24,818	25,836	104.1 ^a

^a Projected^b Mean of previous three years^c December of previous year

Table 3. U.S. Sow Farrowings and Pig Crop Compared to U.S. Commercial Slaughter (1,000 head), with 7-month Lag 1993 to 2006

Year	Sows Farrow	Pig Crop	Pigs/ Litter	Year	Commercial	Ratio ^b
					Slaughter	Slau/PigCrop
June-August				January-March		
1993	2,972	24,041	8.09	1994	22,742	94.6
1994	3,107	25,547	8.22	1995	24,224	94.8
1995	2,976	24,813	8.34	1996	23,651	95.3
1996	2,718	23,244	8.55	1997	22,308	96.1
1997	2,946	25,696	8.72	1998	24,775	96.4
1998	3,054	26,634	8.72	1999	25,579	96.0
1999	2,920	25,862	8.86	2000	25,019	96.7
2000	2,889	25,548	8.84	2001	24,578	96.2
2001	2,878	25,539	8.87	2002	24,148	94.6
2002	2,883	25,725	8.92	2003	24,654	95.8
2003	2,918	25,974	8.90	2004	25,717	99.0
2004	2,905	26,162	9.01	2005	25,529	97.6
2005	2,899	26,276	9.06	2006 ^{ab}	25,765	98.1
September-November				April-June		
1993	2,982	24,003	8.05	1994	22,965	95.7
1994	2,997	24,517	8.18	1995	23,644	96.5
1995	2,815	23,479	8.34	1996	22,201	94.6
1996	2,731	23,327	8.54	1997	21,831	93.6
1997	2,939	25,494	8.67	1998	23,628	92.7
1998	2,993	25,902	8.66	1999	24,288	93.8
1999	2,844	24,973	8.78	2000	23,105	92.5
2000	2,838	25,112	8.85	2001	23,280	92.7
2001	2,889	25,492	8.82	2002	24,280	95.2
2002	2,833	25,094	8.86	2003	23,922	95.3
2003	2,856	25,488	8.93	2004	24,803	97.3
2004	2,888	25,881	8.96	2005	25,028	96.7
2005	2,888	26,080	9.03	2006 ^{ab}	25,270	96.9
December-February				July-September		
93/94	2,885	23,368	8.10	1994	23,673	101.3
94/95	2,886	23,851	8.27	1995	23,264	97.5
95/96	2,735	23,054	8.43	1996	22,711	98.5
96/97	2,684	23,164	8.63	1997	22,679	97.9
97/98	2,929	25,480	8.70	1998	25,038	98.3
98/99	2,891	25,247	8.73	1999	24,960	98.9
99/00	2,798	24,522	8.76	2000	24,097	98.3
00/01	2,748	23,963	8.72	2001	23,635	98.6
01/02	2,835	24,857	8.77	2002	25,120	101.1
02/03	2,769	24,400	8.81	2003	24,747	101.4
03/04	2,836	25,105	8.85	2004	25,817	102.8
04/05	2,835	25,343	8.94	2005	25,515	100.7
05/06 ^a	2,877	25,864	8.99	2006 ^{ab}	26,269	101.6
March-May				October-December		
1993	3,220	26,135	8.12	1993	24,574	94.0
1994	3,390	27,984	8.26	1994	26,315	94.1
1995	3,170	26,373	8.32	1995	25,197	95.5
1996	2,930	24,833	8.48	1996	23,832	96.0
1997	2,911	25,229	8.67	1997	25,143	99.7
1998	3,086	26,989	8.75	1998	27,586	102.2
1999	2,986	26,272	8.80	1999	26,723	101.7
2000	2,885	25,565	8.86	2000	25,714	100.6
2001	2,870	25,509	8.89	2001	26,470	103.8
2002	2,941	26,001	8.84	2002	26,715	102.7
2003	2,886	25,629	8.88	2003	27,608	107.7
2004	2,870	25,633	8.93	2004	27,192	106.1
2005	2,882	25,986	9.02	2005	27,383	105.4
2006 ^a	2,890	26,270	9.09	2006 ^{ab}	28,034	106.7

^a Estimates

^b Last entry is the mean of previous three years including Canadian live imports (not shown).

Table 4. U.S. Commercial Slaughter, Carcass Weights, and Quarterly Pork Production 1994-2006

Year	Quarter	Commercial Slaughter (1,000 head)	Carcass Weight Per Hog	Pork Production (million #'s)	Percent Change Year-Ago
1994	I	22,746	183.9	4,182	-0.6
	II	22,965	184.6	4,240	2.1
	III	23,673	182.7	4,326	4.5
	IV	26,322	186.6	4,913	8.4
1995	I	24,229	185.2	4,488	7.3
	II	23,646	185.8	4,394	3.6
	III	23,264	182.3	4,240	-2.0
	IV	25,198	186.1	4,690	-4.5
1996	I	23,650	185.6	4,389	-2.2
	II	22,201	184.9	4,104	-6.6
	III	22,711	182.4	4,143	-2.3
	IV	23,833	186.7	4,449	-5.1
1997	I	22,342	187.7	4,194	-4.4
	II	21,834	187.4	4,091	-0.3
	III	22,666	185.0	4,196	1.3
	IV	25,152	189.5	4,766	7.1
1998	I	24,776	189.2	4,688	11.8
	II	23,631	187.5	4,429	8.3
	III	25,038	184.7	4,625	10.2
	IV	27,523	188.9	5,239	9.9
1999	I	25,571	190.3	4,865	3.8
	II	24,292	190.6	4,630	4.5
	III	24,960	187.2	4,672	1.0
	IV	26,732	191.2	5,110	-2.5
2000	I	25,019	192.8	4,824	-0.8
	II	23,107	193.8	4,478	-3.3
	III	24,097	191.1	4,606	-1.4
	IV	25,714	194.8	5,010	-2.0
2001	I	24,578	195.5	4,805	-0.4
	II	23,280	195.3	4,546	1.5
	III	23,635	192.4	4,548	-1.3
	IV	26,470	197.9	5,239	4.6
2002	I	24,148	197.9	4,780	-0.5
	II	24,280	197.6	4,797	5.5
	III	25,120	192.4	4,832	6.2
	IV	26,715	196.7	5,255	0.3
2003	I	24,654	198.7	4,898	2.5
	II	23,922	198.2	4,741	-1.2
	III	24,747	194.2	4,807	-0.5
	IV	27,608	199.2	5,499	4.6
2004	I	25,717	199.5	5,130	4.7
	II	24,803	197.4	4,897	3.3
	III	25,817	195.5	5,046	5.0
	IV	27,192	199.9	5,435	-1.2
2005	I	25,529	201.2	5,136	0.1
	II	25,028	200.7	5,022	2.6
	III	25,515	195.9	4,999	-0.9
	IV ^P	27,383	201.0	5,504	1.3
2006	I ^{ac}	25,801	201.7	5,204	1.3
	II ^a	25,270	200.9	5,077	1.1
	III ^a	26,269	196.8	5,170	3.4
	IV ^a	28,034	201.7	5,655	2.7

^a Projected

^c Average of the two estimation methods (Table 2 and 3)

^p Preliminary

Table 5. Actual and Forecast Hog Prices, Lean Carcass Prices, and Retail Pork Prices^a

Year	Quarter	Barrow and Gilts 6-Mkt Price (\$/cwt)	Lean Value (Live Price/74.5 yield) (\$/carcass cwt)	Retail Pork ¢/carcass cwt
1994	I	\$45.19	\$60.66	200.8
	II	\$42.44	\$56.97	198.8
	III	\$40.07	\$53.79	199.0
	IV	\$30.56	\$41.02	193.6
1995	I	\$38.19	\$51.26	191.6
	II	\$38.57	\$51.77	190.2
	III	\$48.32	\$64.86	195.6
	IV	\$42.86	\$57.53	201.8
1996	I	\$45.33	\$60.85	206.3
	II	\$54.84	\$73.61	214.9
	III	\$57.96	\$77.80	230.4
	IV	\$55.10	\$73.96	231.9
1997	I	\$51.06	\$68.54	231.0
	II	\$56.41	\$75.72	229.7
	III	\$54.45	\$73.09	234.5
	IV	\$43.69	\$58.64	231.0
1998	I	\$34.74	\$46.63	233.0
	II	\$39.42	\$52.91	226.9
	III	\$33.95	\$45.57	231.0
	IV	\$19.30	\$25.91	226.9
1999	I	\$28.83	\$38.70	235.8
	II	\$35.18	\$47.22	238.4
	III	\$35.70	\$47.92	246.4
	IV	\$36.29	\$48.71	245.2
2000	I	\$41.14	\$55.22	249.8
	II	\$50.43	\$67.69	257.3
	III	\$46.43	\$62.32	264.3
	IV	\$40.78	\$54.74	261.3
2001	I	\$42.83	\$57.49	262.5
	II	\$52.05	\$69.87	267.0
	III	\$51.05	\$68.52	275.0
	IV	\$37.30	\$50.07	273.0
2002	I	\$39.43	\$52.93	270.9
	II	\$34.99	\$46.97	267.7
	III	\$33.86	\$45.45	264.1
	IV	\$31.34	\$42.07	260.2
2003	I	\$35.38	\$47.49	260.9
	II	\$42.64	\$57.23	262.2
	III	\$42.90	\$57.58	269.8
	IV	\$36.89	\$49.52	270.2
2004	I	\$44.18	\$59.30	269.3
	II	\$54.91	\$73.70	276.8
	III	\$56.58	\$75.95	287.7
	IV	\$54.35	\$72.95	282.8
2005	I	\$52.24	\$70.12	282.9
	II	\$52.09	\$69.92	286.7
	III	\$50.51	\$67.80	282.9
	IV ^p	\$45.16	\$60.62	278.4
2006	I ^{ac}	\$45.51	\$61.09	
	II ^a	\$48.25	\$64.77	
	III ^a	\$46.42	\$62.31	
	IV ^a	\$43.53	\$58.43	

^a Predicted prices for 2006 (I) forward are made with two equations with the results averaged.

^p Preliminary