

Tough Times On Horizon For Hog Producers

July 2002

Chris Hurt

With favorable returns in both 2000 and 2001, hog producers expanded the breeding herd more rapidly than had been reported in mid and late 2001. As a result, U.S. hog production has been higher than previously anticipated. In addition, the flow of Canadian live hogs to the U.S. has increased by 1.9 million head annually since 1999 thus increasing total pork supplies by an additional two percent. U.S. producers have actually decreased the number of hogs produced since 1999 by 4.2 million head annually.

The current market herd is up over two percent and producers intend to farrow two percent more sows this summer and one percent more this fall. This means that pork supplies will be up more than two percent in the last-half of this year, and the first-half of 2003. For the year of 2002, pork production is now forecast to reach a record 19.65 billion pounds breaking the previous 1999 record of 19.3 billion pounds. Production may climb even higher in 2003, although the growth in production should abate by late in the year.

Hog prices are expected to be depressed this fall dropping to an average in the very low \$30s based upon the liveweight equivalent of 51 to 52 percent lean carcasses. Winter prices are expected to be only a couple dollars per hundredweight higher, with spring quarter 2003 prices in the mid-\$30's. Higher fed prices have already increased costs of production by about \$2 per live hundredweight to around \$39, and adverse summer weather would raise costs further.

An extended period of losses is expected for farrow-to-finish production. Those are estimated to be about \$20 per head in the fall, \$17 per head in the winter, and \$12 per head in the spring quarter. If so, these will be the largest losses since late 1998 and early 1999, when they averaged an estimated \$32 per head.

Producers should do what they can to prepare of a long period of losses. This includes running projected cash flows, anticipating the impacts on the farm's financial condition, and discussing alternatives with lenders as well as family members and employees. Lean hog futures pricing opportunities would lock in substantial losses for most at this time, so many will wait to see if some recovery into the mid-to-upper \$40s for fall and winter lean hog futures is possible. Some protection against the potential for rising feed prices is also suggested.

The Numbers

Table 1 provides details on the numbers from the June *Quarterly Hogs and Pigs* report from USDA's survey of hog producers. The breeding herd was up only slightly but the market herd was up 2.3 percent. Weight breakdowns for the market herd showed that the largest percentage increases were in pigs that would be coming to market in July (up 4.0 percent). Those in the weights that were less than 120 pounds that will come to market in August through November were up about one percent.

Sow farrowings this past spring were up 2.2 percent. This was sharply higher than the .9 percent increase that producers indicated as second intentions in the March quarterly report. USDA also revised higher by an additional 1.7 percent the farrowings last fall to reflect the higher rate of slaughter this spring. As a general conclusion, these upward revisions demonstrate that the breeding herd had expanded more than had been previously reported. The expansion was a result of the very favorable profits from the spring of 2000 through the summer of 2001.

Farrowing intentions for this summer are up 1.8 percent and .9 percent for the fall, thus continuing the expansion in pork supplies at least until mid-2003. The pigs per litter was 8.73 in the winter and 8.81 in the spring. This means that the litter size actually decreased during the first-half of the year from 8.81 in the first-half of 2001 to 8.77 in the first-half of 2002. The growth in pigs weaned per litter has basically been flat since 1999, and seems to have ended, for now, one of the great productivity growth factors. In 1980, the average number of pigs per litter was 7.2. By 1990 that had reached 7.9, and by 1999 the number was 8.8 where it has reached a plateau.

The breeding herd seems to have grown in the past year in some traditional family farm states, while shrinking in some more corporate oriented states. The Nebraska breeding herd was up a surprising ten percent, while Illinois was up seven percent, Ohio was up six percent, and Iowa up one percent. However, some traditional Midwestern states also had decreases including: Indiana down six percent, Missouri down three percent, and Minnesota down two percent. Two corporate oriented states were down on sow numbers. Colorado has seen sow depopulations in recent reports and was down 12 percent, and Oklahoma producers finally took a break from expansion posting a three percent decrease in their breeding herd. Texas however remained in strong expansion with an 11 percent breeding herd rise.

Continued Saga of Depressed Hog Prices

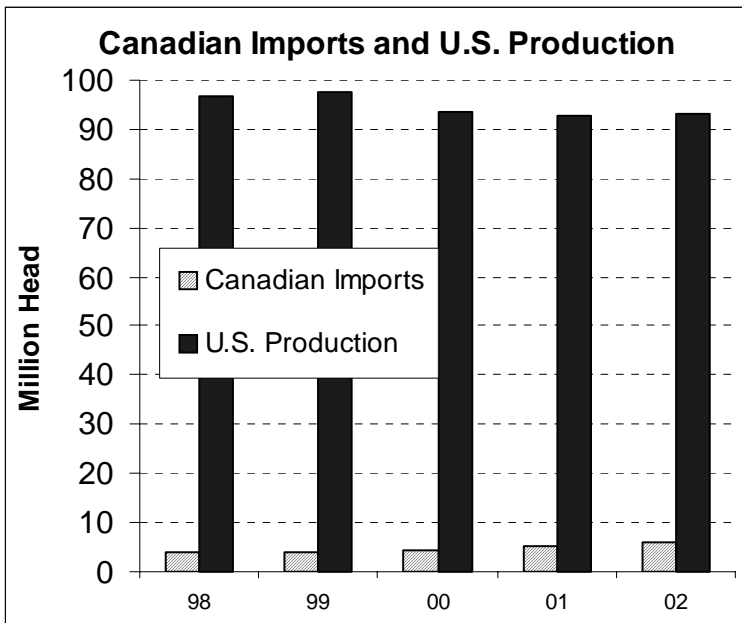
In my last quarterly report, I detailed why hog prices have been so low, and will update that information here. At first glance, there were simply more hogs in the second quarter than we had anticipated. My estimates at the start of the quarter were that pork supplies would be up 2.1 percent. At the end of the quarter we can report that supplies were actually up by 6.0 percent. This was a result of a 4.2 percent higher head count and 1.8 percent higher market weights. The larger head count was a combination of a larger buildup in the U.S. breeding herd in the summer of 2001 than had been reported, larger farrowings last fall, and continued growth in Canadian imports.

How important has the rise in Canadian imports been to total slaughter? In the first four months of the year for which data is now available, Canadian imports were 1.9 million head which was an increase of 17 percent over the same period in 2001. Imports will reach an estimated 6 million head of the 99.2 million estimated total slaughter this year, or six percent. Thus, the increased number of live hog imports has accounted for about a one percent increase in the U.S. slaughter for the year.

The number of hogs slaughtered in the U.S. of course peaked in 1999 at 101.6 million head. By

2002 that number has dropped to 99.2 million head. U.S. producers made substantial downward adjustments in their inventories since 1999 such that they were producing an estimated 4.2 million fewer hogs by this year. However, the Canadians have been expanding and sending more hogs to the U.S. From 1999 to 2002, they have increased the number of Canadian imports to the U.S. by 1.9 million head as illustrated in **Figure 1**.

Figure 1:



While Canadian imports are still a relatively small source of total U.S. slaughter, there are many questions which arise including what are the important factors driving this trend, and is this the start of a broader trend to that drives portions of hog production to other countries? Most likely these are simply signs of greater integration of the North American pork industry in a more global economy.

The next culprit in the low price saga is demand. For the first-half of the year, production was up 2.6 percent, and live hog prices were down 22 percent. Normally we think about a one percent change in

supply having about a 2.2% impact on prices. In this case, each one percent change in price was impacting price by 8.4%, indicating that some additional demand components were also at work. The first of these is the increased supplies of beef and poultry. Beef supplies in the first-half of 2002 were up 4.1 percent and total poultry was up 3.8 percent. The trade conflict with Russia also limited exports of broiler meat to our number one customer, thus meat and poultry backed-up in U.S. freezers. At the end of May, cold storage stocks of broilers, turkey, and beef were all up about 25 percent compared to the same time last year, and pork stocks stood at 30 percent higher.

Retail prices were also a likely additional culprit in pushing live prices so low. During the January to May period this year, retail prices averaged \$2.70 per retail pound. This was an increase from \$2.64 for the same period in 2001. Retail prices (at least through May) remain near record highs (the highest quarterly retail price was last summer at \$2.75 per pound, Table 5). With sharply lower wholesale pork costs and only moderate reductions in the retail price, the retailers' margin has set a new monthly record of \$1.71 per retail pound in May. In contrast, in the final quarter of 1998 retail margins were \$1.42 per pound, an astounding record at that time. Retailers are quick to point out that there are data collection problems with the retail price series including a lack of properly accounting for the volume sold during pork specials. Regardless, this once more seems to point to a retail sector that is slow to move their prices lower to help move a surprisingly large pork supply, and likely forcing more pork to move into storage, and lower live

hog prices than would exist with a more aggressive “price lowering” retailer.

Supplies and Prices

Pork production during 2002 is expected to reach a record of 19.65 billion pounds an increase of 2.6 percent over last year. This will exceed the previous record of 19.3 billion pounds in 1999. The head count is estimated at 99.2 million head an increase of 1.3 percent. Carcass weights are expected to rise by 1.3 percent also.

By quarter, pork supplies are expected to be up by four percent in the third quarter, one percent in the final quarter of the year, up four percent in the first quarter of 2003 and up one percent in the second quarter next year. Production during the last-half of 2003 may be near unchanged, and thus supplies for all of 2003 may be up about one percent for the year, (see Table 4).

Live hog prices are expected to be under downward pressure by the end of this summer. Prices based upon the live equivalent of 51-52 percent lean animals is expected to average near \$38 this summer, but fall to \$31 in the final quarter this fall. If so, this means that daily lows in the mid-October to November time frame could drop to the higher \$20s. First quarter of 2003 prices are expected to average \$33 per live hundredweight and \$35 for the spring quarter, (see Table 4).

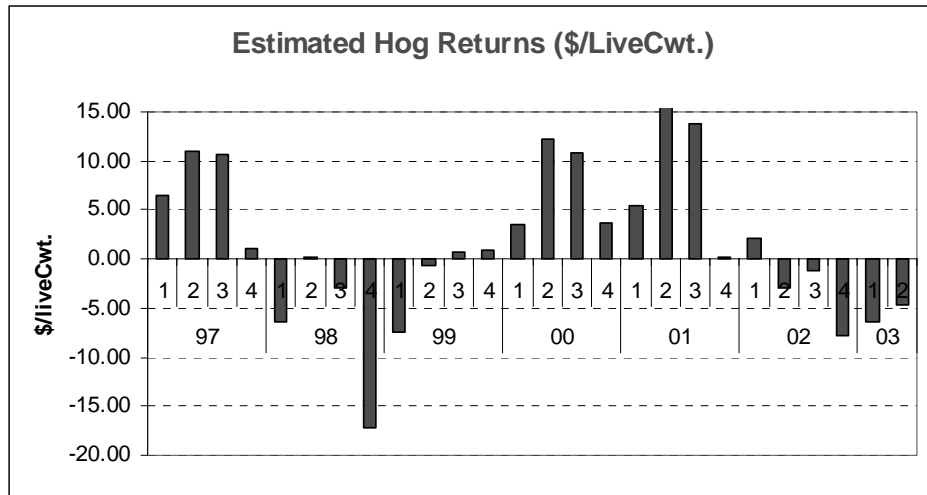
Average annual prices are expected to be the lowest since 1998 and 1999 when they averaged \$31.85 and \$34 respectively. For 2002, the average annual price is now expected to be \$35.78 and at a similar level for 2003, although price improvement is likely by late in 2003.

Hog Returns in Trouble

The sustained period of losses for pork producers should be expected to continue until the summer of 2003. Estimated profits or losses per live hundredweight are shown in **Figure 2**. During the second and third quarter this year, estimated losses have been small at around \$1 to \$3 per live hundredweight. Those losses are expected to reach their highest level in the final quarter this year around \$8 per live hundredweight or \$20 per head. Losses could ease to around a \$17 per head in the first quarter of 2003 and \$12 per head in the second quarter.

These will likely be the most severe losses since late 1998 and early 1999, but the magnitude is not expected to be as large when they averaged an estimated \$32 per head. This fall and winter, losses are currently expected to average about \$18 per head.

Figure 2:



Feed prices provide an additional uncertainty as growing conditions in the coming one to two months can impact costs of production sharply. Since early May, the rise in new crop corn and soybean meal futures prices have increased estimated costs of production about \$2 per live hundredweight from \$37 to \$39. If December corn futures were to increase to

\$2.75 and meal to \$220 per ton, the costs would rise to about \$42.50 per live hundredweight. Such a scenario would cause some added hog liquidation, depressing hog prices even more. Losses under such a scenario would likely expand to above \$30 per head. While no one knows the exact direction of summer weather and feed prices, the point of this discussion is to remind producers of one additional vulnerability.

What Can We Do Now?

This is the question I have heard for the past several months. Forward pricing opportunities with futures markets for fall and winter pricing are only offering live equivalent prices in the very high \$20s or low \$30s, which are consistent with the current outlook, but would lock in losses for most. Locking in losses when we are still several months away from the potential low price period is not a strategy most will accept at this point. Rather waiting for the potential for some better news seems to be the strategy of choice. Sometimes when the worst is expected, the reality is not as bad as the anticipation. I will admit that this argument is based more upon hope than on objective evaluation of the data however.

On the other hand, if forward pricing opportunities should improve such that fall and winter lean futures rise to the mid to upper \$40s, then consideration of pricing becomes more palatable. This would provide many producers with a price level that will at least cover their cash flow costs and allow them to get through the tight margin period this fall and winter.

As described earlier, there is an increased vulnerability of higher feed prices. World ending stocks are going to be tight for corn, soybeans, wheat, oils, and meals. In fact, depending upon commodity, the stocks will be the tightest since the mid-1990s, or in some cases since the mid-1970's. For this reason, I am more willing to consider some level of protection on feed prices for the coming year. This can be accomplished with either futures or call options.

There are a set of financial strategies that arise from the outlook for depressed margins upcoming. First, producers should use the current price forecasts and their estimated costs to run projected cash flows for the next year, by month or by quarter. Next they should discuss the financial implications with their lenders. Remember, lenders don't like surprises, so talk with them up front about credit needs in order to cash flow through the difficult period. Also discuss with them the alternatives if margins are better or worse than expected. Often they can suggest such strategies such as restructuring debt, or repaying only interest for a period if necessary.

While few producers may be able to drive costs low enough to manage a profit through the upcoming time period, it is still important to do everything possible to keep costs reduced. Along with the need to keep costs low, is the discussion with family and employees about the current outlook and the need for belt tightening through the potential difficult time period.

Finally, it makes sense to examine the financial implications of reducing production now, or either partially, or fully liquidating this summer. While larger production volume tends to help push costs per hundredweight lower, volume also makes total losses larger when costs cannot be covered. Some producers may not be willing, or able, to take the financial set-back implied by the current outlook. Pricing more animals (including sows) this summer at prices in the higher \$30s for market animals could well look superior to the financial implications of a sustained period of losses.

Some can adjust market weights somewhat also. Consider the possibility of marketing lighter weight hogs in late August and September. This strategy will pull forward some marketings, with the hope of pricing more hogs with stronger August/September prices.

How long until the industry sees the glow of positive returns? From a period of losses it is generally about 6 quarters until the industry returns to profits. Assuming losses began in the second quarter of 2002 as shown in **Figure 2**, the industry could return to breakeven, or small profits by the summer of 2003, or no later than the fall of 2003. A period of favorable returns could then be expected in late 2003, 2004 and early 2005.

Table 1. Hogs and Pigs in the United States, June 1, 2002

	2001	2002	2002 as % of 2001
	thousand head		percent
<u>Inventory</u>			
All hogs and pigs	58,603	59,837	102.1
Kept for breeding	6,186	6,209	100.4
Kept for market	52,417	53,627	102.3
<u>Market hogs by weight</u>			
Under 60 pounds	19,923	20,140	101.1
60-119	12,992	13,109	100.9
120-179	10,536	10,958	104.0
180 and over	8,967	9,420	105.1
<u>Sows farrowing</u>			
Dec - Feb	2,748	2,832	103.1
Mar - May	2,870	2,933	102.2
June - Aug ¹	2,878	2,930	101.8
Sep - Nov ¹	2,889	2,915	100.9
<u>Pigs saved per litter</u>			
Dec - Feb	8.72	8.73	100.1
Mar - May	8.89	8.81	99.1
<u>Pig crop</u>			
Dec - Feb	23,963	24,711	103.1
Mar - May	25,509	25,851	101.3

¹ Intentions

Table 2. U.S. Market Hogs Weighing 60 to 179 Pounds on June 1, and Commercial Slaughter in Calendar Quarter from July through Sept

Years ^c	Number of Hogs	July-Sept	Ratio
	60 to 179 Pounds	Commercial Slaughter	
	thousand head		
1990	20,253	20,346	100.5
1991	21,201	21,376	100.8
1992	22,613	23,746	105.0
1993	22,455	22,777	101.4
1994	22,970	23,673	103.1
1995	23,200	23,264	100.3
1996	22,500	22,711	100.9
1997	22,576	22,666	100.4
1998	24,795	25,038	101.0
1999	24,577	24,960	101.6
2000	23,957	24,097	100.6
2001	23,528	23,631	100.4
2002	24,067	24,274	100.9 ^d

^a Projected^b Mean of previous three years

Table 3. U.S. Sow Farrowings and Pig Crop Compared to U.S. Commercial Slaughter (thousand head), with 7-month Lag 1991 to 2002

Year	Sows Farrow	Pig Crop	Ratio	Commercial		
				Year	Slaughter	Ratio ^b
<u>December-February</u>				<u>July-September</u>		
1991	2,892	23,258	8.04	1992	23,746	102.1
1992	2,808	22,871	8.15	1993	22,777	99.6
1993	2,885	23,368	8.10	1994	23,673	101.3
1994	2,886	23,851	8.27	1995	23,264	97.5
1995	2,735	23,054	8.43	1996	22,711	98.5
1996	2,684	23,164	8.63	1997	22,669	97.9
1997	2,929	25,480	8.70	1998	25,038	98.3
1998	2,891	25,247	8.73	1999	24,960	98.9
1999	2,798	24,522	8.76	2000	24,097	98.3
2000	2,748	23,963	8.72	2001	23,631	98.6
2001	2,832	24,711	8.73	2002	24,360	98.6
<u>March-May</u>				<u>October-December</u>		
1991	3,287	26,158	7.96	1991	24,367	93.2
1992	3,368	27,208	8.08	1992	25,138	92.4
1993	3,220	26,135	8.12	1993	24,574	94.0
1994	3,390	27,984	8.26	1994	26,322	94.1
1995	3,170	26,373	8.32	1995	25,198	95.5
1996	2,930	24,833	8.48	1996	23,833	96.0
1997	2,911	25,229	8.67	1997	25,152	99.7
1998	3,086	26,989	8.75	1998	27,584	102.2
1999	2,986	26,272	8.80	1999	26,732	101.8
2000	2,885	25,565	8.86	2000	25,714	100.6
2001	2,870	25,509	8.89	2001	26,465	103.7
2002	2,933	25,851	8.81	2002	26,497	102.5
<u>June-August</u>				<u>January-March</u>		
1991	3,105	24,499	7.89	1992	23,802	97.4
1992	3,020	24,590	8.14	1993	23,057	93.8
1993	2,972	24,041	8.09	1994	22,746	94.6
1994	3,107	25,547	8.22	1995	24,229	94.8
1995	2,976	24,813	8.34	1996	23,650	95.3
1996	2,718	23,244	8.55	1997	22,342	96.1
1997	2,946	25,696	8.72	1998	24,776	96.4
1998	3,054	26,634	8.72	1999	25,571	96.0
1999	2,920	25,862	8.86	2000	25,019	96.7
2000	2,889	25,548	8.84	2001	24,574	96.2
2001	2,878	25,539	8.87	2002	24,139	94.5
2002 ^a	2,930	25,931	8.85	2003	24,845	95.8
<u>September-November</u>				<u>April-June</u>		
1991	2,969	23,427	7.89	1992	22,202	94.8
1992	2,992	24,086	8.05	1993	22,661	94.1
1993	2,982	24,003	8.05	1994	22,965	95.7
1994	2,997	24,517	8.18	1995	23,646	96.5
1995	2,815	23,479	8.34	1996	22,201	94.6
1996	2,731	23,327	8.54	1997	21,834	93.6
1997	2,939	25,494	8.67	1998	23,631	92.7
1998	2,993	25,902	8.66	1999	24,292	93.8
1999	2,844	24,973	8.78	2000	23,107	92.5
2000	2,838	25,112	8.85	2001	23,273	92.7
2001	2,889	25,492	8.82	2002	24,254	95.1
2002 ^a	2,915	25,769	8.84	2003	24,274	94.2

a = Intentions

Table 4. U.S. Commercial Slaughter, Slaughter Carcass Weights, and Quarterly Pork Production 1990-2002

Year	Quarter	Commercial Slaughter (thou. hd.)	Carcass Weight Per Hog	Pork Production (mill. #'s)	Percent Change Year-Ago
1990	I	21,879	178.3	3,902	+4
	II	20,257	179.9	3,645	-7.2
	III	20,350	178.8	3,639	-4.0
	IV	22,628	181.4	4,105	-1.2
1991	I	21,508	181.4	3,902	0.0
	II	20,921	181.3	3,792	4.0
	III	21,371	178.8	3,822	5.0
	IV	24,365	182.0	4,434	8.0
1992	I	23,802	181.5	4,321	10.7
	II	22,202	181.7	4,033	6.4
	III	23,746	179.6	4,264	11.6
	IV	25,138	181.7	4,567	3.0
1993	I	23,057	182.5	4,207	-2.6
	II	22,661	183.2	4,151	2.9
	III	22,777	181.7	4,138	-3.0
	IV	24,573	184.5	4,534	-0.7
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	24,574	195.5	4,805	-0.4
	II	23,273	195.3	4,546	1.5
	III	23,631	192.5	4,548	-1.3
	IV	26,465	198.0	5,239	4.6
2002	I	24,139	198.0	4,779	-0.5
	II ^p	24,254	198.7	4,820	6.0
	III ^{ac}	24,317	195.3	4,749	4.4
	IV ^a	26,497	199.9	5,297	1.1
2003	I ^a	24,845	200.4	4,979	4.2
	II ^a	24,274	200.4	4,865	0.9

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 yield) (\$/carcass cwt)	Retail Pork ¢/carcass cwt
1990	I	\$49.45	\$66.82	196.2
	II	\$59.01	\$79.74	208.4
	III	\$57.67	\$77.93	222.6
	IV	\$51.67	\$69.82	223.1
1991	I	\$51.50	\$69.59	215.2
	II	\$53.34	\$72.08	213.2
	III	\$50.85	\$68.72	214.6
	IV	\$39.84	\$53.84	204.6
1992	I	\$38.68	\$52.27	198.9
	II	\$44.83	\$60.58	195.9
	III	\$43.86	\$59.27	200.6
	IV	\$41.84	\$56.54	197.0
1993	I	\$43.96	\$59.41	194.6
	II	\$46.83	\$63.28	194.3
	III	\$47.49	\$64.18	200.2
	IV	\$43.23	\$58.42	201.3
1994	I	\$45.19	\$61.07	200.8
	II	\$42.44	\$57.35	198.8
	III	\$40.07	\$54.15	199.0
	IV	\$30.56	\$41.30	193.6
1995	I	\$38.19	\$51.61	191.6
	II	\$38.57	\$52.12	190.2
	III	\$48.32	\$65.30	195.6
	IV	\$42.86	\$57.92	201.8
1996	I	\$45.33	\$61.26	206.3
	II	\$54.84	\$74.11	214.9
	III	\$57.96	\$78.32	230.4
	IV	\$55.10	\$74.46	231.9
1997	I	\$51.06	\$69.00	231.0
	II	\$56.41	\$76.23	229.7
	III	\$54.45	\$73.58	234.5
	IV	\$43.69	\$59.04	231.0
1998	I	\$34.74	\$46.95	233.0
	II	\$39.42	\$53.27	226.9
	III	\$33.95	\$45.88	231.0
	IV	\$19.30	\$26.08	226.9
1999	I	\$28.83	\$38.96	235.8
	II	\$35.18	\$47.54	238.4
	III	\$35.70	\$48.24	246.4
	IV	\$36.29	\$49.04	245.2
2000	I	\$41.14	\$55.59	249.8
	II	\$50.43	\$68.15	257.3
	III	\$46.43	\$62.74	264.3
	IV	\$40.78	\$55.11	261.3
2001	I	\$42.83	\$57.88	262.5
	II	\$52.05	\$70.34	267.0
	III	\$51.05	\$68.99	275.0
	IV	\$37.30	\$50.41	273.0
2002	I	\$39.43	\$53.28	270.9
	II ^p	\$34.54	\$46.68	268.2
	III ^a	\$37.88	\$51.19	
	IV ^a	\$31.28	\$42.27	
2003	I ^a	\$33.01	\$44.61	
	II ^a	\$35.03	\$47.34	

^a Predicted prices for 2002 (II) forward are made with two equations with the results averaged.

^p Preliminary