

# Iowa Farm Outlook

December 2008

Department of Economics  
Ames, Iowa

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## Meat Supplies Declining

Total red meat and poultry supplies are beginning to show year-over-year declines and are expected to remain below year earlier levels through most of 2009 or beyond. The economic losses beginning in late 2007 and continuing to-date has triggered a reduction in production that has finally reached the processing level. Smaller supplies are supportive of higher prices. However, the current economic recession and stronger US dollar relative to most customer and competitor currencies will limit demand. This supply and demand battle is larger than in most years resulting in greater market risk for producers.

Retail meat prices that did increase in 2008 did so during a time of record US production. Reduced imports and increased exports resulted in the total disappearance near 2007 and per capita consumption the lowest since 2001. Higher energy prices also helped push retail prices higher. Looking ahead, smaller US production will be partially offset by reduced exports and higher imports, particularly of beef and lower energy cost. Yet, in the end higher retail prices are anticipated.

### Lower poultry production...

Chicken represents nearly 40% of US meat production and chicken production is declining. Egg sets began to decline in March, chick placements declined in April and actual pounds of chicken production decreased after Labor Day. Chicken production is 4.2% lower though the first half of the fourth quarter compared to be 6.3% higher than 2007 in the first quarter of the year. Turkey production that was up 8.8% in the first quarter has slowed to a 2.2% increase by the fourth quarter.

Looking ahead, both chicken and turkey production is expected to be 3-4% lower in 2009 compared to 2008. Broiler egg set was down 4.3% in the third quarter and 8.4% lower thus far in the fourth quarter. Besides current economic pressures, broiler producers face other concerns. Pilgram's Pride, the largest US broiler producer is on the border of bankruptcy due to significant losses related to high feed costs. In 2007, Russia accounted for 32% of US poultry exports and it has announced that it would like to limit and perhaps reduce the amount of poultry it imports. Finally, the Russian ruble and several other currencies have dropped in value relative to the US\$ in recent weeks making US products more expensive for export customers.

### Lower pork production...

Hog slaughter was anticipated to continue above 2007 levels through the end of the year. The September *Hogs and Pigs* report estimated that inventory of 120-179 pound hogs (marketings for mid-October through November) was 6% higher than the year earlier. However, three of the four weeks ending November 15 posted a year-over-year decline in slaughter, not an increase. While smaller pork supplies are supportive of near term hog prices, sow slaughter also declined in November suggesting that herd liquidation may have stalled. The decline in production arrived two months ahead of schedule and is expected to remain below year earlier levels through at least the first three quarters of 2009.

The other factor impacting hog slaughter is imports of Canadian hogs and feeder pigs, both of which have declined in recent weeks. Canadian pigs are included in USDA inventory reports, but hogs delivered direct to plants are not. Mandatory Country of Origin Labeling (MCOOL) went into effect September 30, 2008. Packers and retailers are implementing MCOOL and it has impacted buying practices for some packers. At least one, Smithfield, has announced that it will buy only US born hogs after April 1, 2009, the end of the MCOOL phase-

in period announced by USDA. Smithfield, including its Farmland and Morrell plants, will have to bid US born hogs away from other packers. Producers with Canadian born hogs currently going to Smithfield plants will need to find a new buyer. While not documented, it is anticipated that Canadian born hogs will be discounted. Packers that do buy them may process them only at specified plants or days of the week to segregate the hogs for labeling.

Has it had impact? Very likely, but it is difficult to prove how much. Imports from Canada have declined (Table 1), but there are additional factors beyond MCOOL. First, the Canadian pig crop had been declining due economic pressures. The number of pigs born declined year-over-year in 10 of the 12 quarters since the fourth quarter of 2005. The third quarter pig crop was down 8.4% (756,000 head) from the same quarter in 2005. Second, more Canadian slaughter hogs may be slaughtered in Canadian plants rather than coming to the US. Although too early and too erratic to tell, October slaughter in Canadian plants was up 3.7% from the year before and it was nearly unchanged from the year before during July-September.

As US consumers weigh-in on their preference and how much they are willing to pay based on origin, packers and retailers will settle on a MCOOL strategy that will filter back to producers. It is important to recognize that unless MCOOL results in lower total supplies or increased demand, prices are not likely to change in the long run. In the short run price differences will probably exist as packers acquire the hogs they want.

**Table 1. Percentage Change in Canadian Imports v. 2007**

Quarter	1	2	3	Oct-Nov
Hogs	27%	-42%	-52%	-73%
Pigs	26%	9%	-3%	-8%

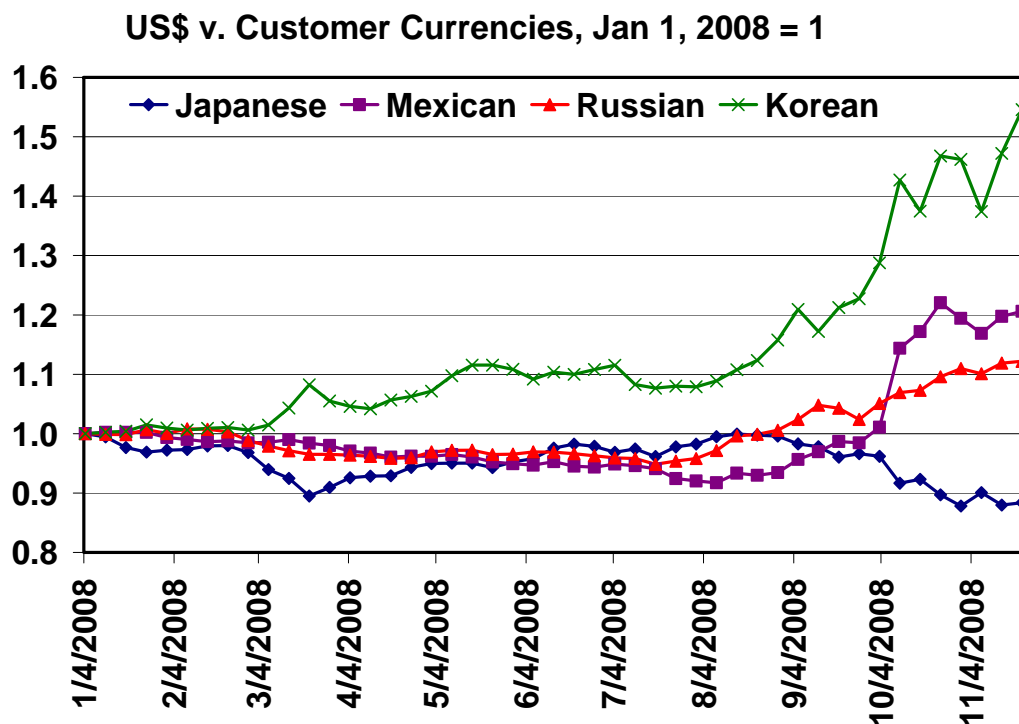
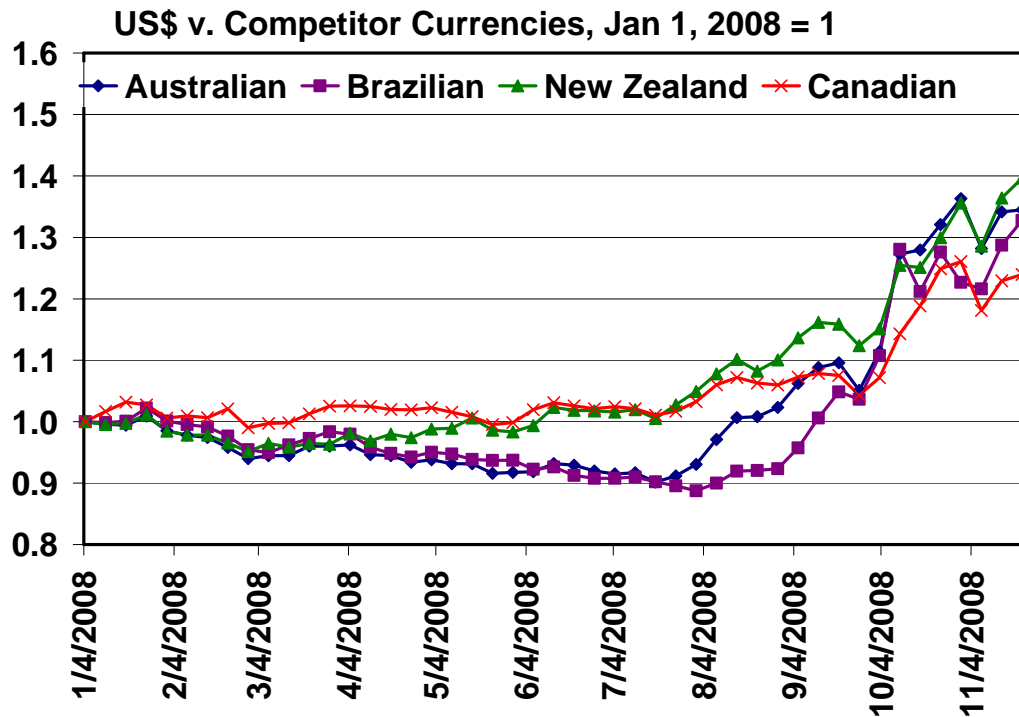
Pork exports have been remarkable, up 66% Jan-Sep of this year, but are expected to have slower growth or even a decline in 2009 due to the global economic crisis and a resulting stronger US dollar. Pork exports were higher across nearly all markets this year, but China and Russia posted the greatest change from 2007 (Table 2). Both of these markets have slowed their pace and will likely buy less in 2009 than 2008.

**Table 2. January-September US Pork Exports, Share of Total and Change from 2007**

	Share	Change
Japan	28%	25%
China+	22%	237%
Mexico	13%	44%
Other	12%	90%
Russia	10%	143%
Canada	9%	21%
Korea	6%	29%

China's imports were associated with production problems and demand tied to hosting the Olympics. Pork exports to China peaked in June and have returned to levels closer to 2007 by the fall. Russia purchases were thought to be tied to oil income and a weak US dollar; both of which have changed. Russia has also indicated that it would like to hold imports to the quota, less than 2008 volume.

One of the drivers of pork exports earlier in the year was the weakness of the US dollar. However, it has strengthened dramatically in recent weeks as the global economic recession has grown. The figures below show the change in the value of the dollar compared to customer and competitor currencies. In most cases, the change has occurred since September 1. Japanese currency is stronger than before, but Korea, Mexico, and Russia have all seen their currency weaken. Likewise, Canada has a weaker currency.



Hog prices likely posted their seasonal low before Thanksgiving. The average seasonal increase from November to June is 25% suggesting lean hog prices over \$65/cwt. However, June futures are over \$80 at this writing suggesting either a stronger than normal price rally or a hedging opportunity. Lean hog futures and current corn and soybean meal prices point to producer profits for April through the end of 2009.

**Lower beef production...**

Cattle slaughter through mid-November is higher than the same period in 2007 due largely to increased cow slaughter. Steer and heifer slaughter has been below the same week a year ago since the first of June and will continue lower through mid-year 2009, but cow slaughter is higher. Since July 1, dairy cow slaughter is up 5.9% and beef cow slaughter is up 21.4% compared to the same time period in 2007 indicating further herd liquidation.

Near term, beef supplies are forecast to post a year-over-year decline in the first and second quarters of 2009 suggesting higher prices. Cattle on feed inventories have been lower than 2007 since May and below the 5-year averages since July. There is a shift to heavier placements that is expected to result in reduced second quarter marketings, but higher third quarter marketings. As a result the price swing from the seasonal high in March or April to the seasonal low in July or August may be larger than normal. Overall, beef supplies are expected to be lower in 2009 than 2008 due to continued lower fed marketings and a moderating of cow slaughter.

The higher cow slaughter will lead to a smaller calf crop in 2009 and a decline in beef production in 2010. Beef cow cost of production have increased. In particular, according to USDA pasture land values have doubled since 2003. Hay prices which increased with corn prices earlier in the year have not declined as quickly as corn prices have. Given current economics of lower calf prices and higher production costs, herd liquidation is expected to continue beyond 2010.

While the supply side of the beef market is supportive of higher prices, the demand side is troubling. Food service is an important market for beef. The weaker economic has hit restaurant volume and sales. Surveys of restaurants report reduced traffic and less spending per customer. For the 12 weeks from early September to mid-November the rib and loin prices have decreased, but prices of other cheaper primals have increased (Table 3). Consumers are trading down for cheaper cuts of beef or substituting to pork or poultry. Also, while higher than a year ago, hide and offal prices have decreased 30% from their high in July or approximately \$40/head.

**Table 3. Comprehensive Boxed Beef Prices, 12-week Average September to mid-November, 2008 v. 2007**

	2008	2007	Change
CUTOUT VALUE	150.71	142.23	6%
Primal Rib	215.66	227.35	-5%
Primal Chuck	130.58	108.40	20%
Primal Round	140.29	123.54	14%
Primal Loin	188.40	204.12	-8%
Primal Brisket	102.97	90.71	14%
Primal Short Plate	112.24	89.82	25%
Primal Flank	94.18	76.13	24%

Beef exports are recovering from the sharp decline in 2004 following the discovery of a BSE case in the US. Exports to South Korea grew rapidly this summer, but have slowed recently. The sharp change in exchange rates (Figures above) favor increased beef imports from Australia, New Zealand, Canada and South America, but will limit exports to South Korea and Mexico. Countries that export to the US are also competitors of the US in markets such as Japan and their product will be relatively cheaper due to the stronger US\$.

#### **Price implications...**

Cattle and hog prices are forecast to average higher in 2009 than 2008. Lower beef, pork and poultry production is supportive of the prices for the year ahead. Negative factors to watch are demand related. First, watch unemployment and consumer spending and confidence. If the economy continues to struggle so will beef and perhaps pork sales. Second, watch exports. The stronger dollar and/or slower economic growth in other countries will hurt exports of beef, pork and poultry. It is possible that the US can reduce meat production, but have more meat available in the domestic market because of higher imports and lower exports.

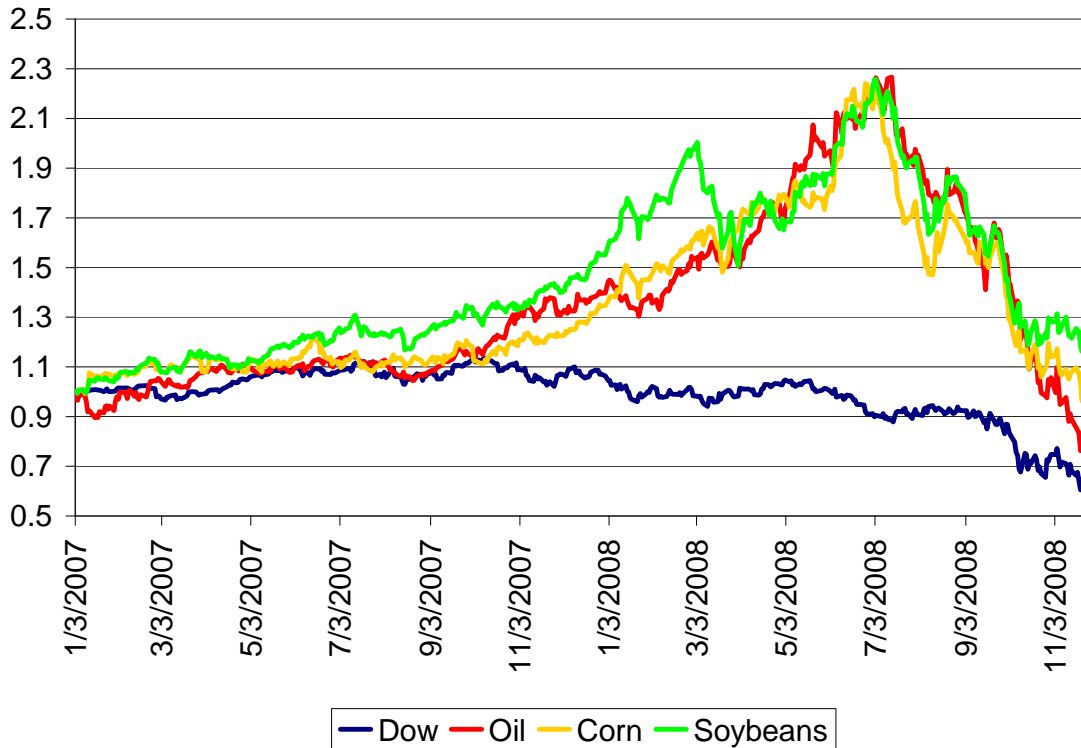
Longer term the US meat sector may emerge from 2008 in a stronger position than before. High feed costs of last summer impacted meat production in other countries as well the US. Likewise, the weak global economy has limited import demand. The US as a surplus grain producer with a large domestic market is likely to have weathered the storm of 2008 better than most.

*John Lawrence*

## Crop Prices Have Separated from Oil Prices

The buildup of the biofuel industry has led to the formation of a fairly strong relationship among crude oil, corn, and soybean prices. Since the beginning of 2007, the correlation among the three prices is well over 0.9, indicating that the prices are moving together. Figure 1 shows the movements for crude oil, corn, and soybean prices, along with the Dow Jones Index. Between Jan. 2007 and July 2008, crude oil, corn, and soybeans all more than doubled in price. All three commodities set record prices in July. But the markets have gone through a major revision since then.

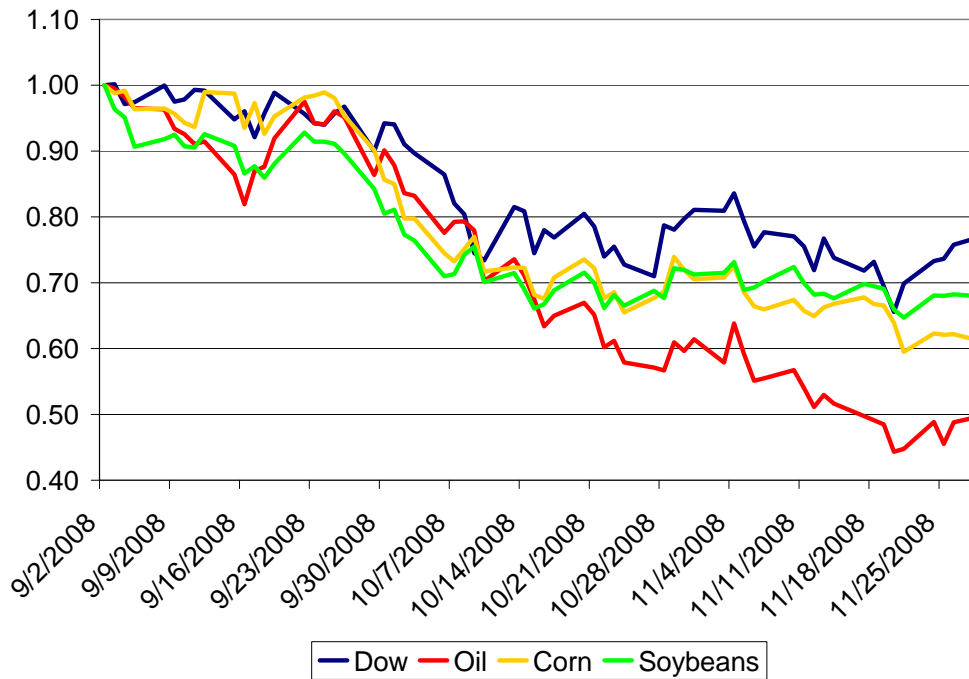
**Figure 1. Dow Jones Index, Crude Oil, Corn, and Soybean Futures (Jan. 3, 2007 = 1)**



Prices in the crop markets have dropped dramatically over the past five months, in combination with declines in energy prices and stock indexes. Concerns about the U.S. and world economies are being reflected in reduced demand for many products, including agricultural products. As corn and soybean prices rose earlier this year, we could point to strong export demand, growing biofuel demand, and significant feed demand. Now all three of those demand sectors have shown signs of weakness. Export demand has backed off with the strengthening of U.S. dollar versus many of the world's currencies and the resurgence of alternative feed grains, especially feed wheat. Feed demand for corn in the U.S. is projected to decline by 700 million bushels as the livestock industry continues through its consolidation. And the biofuel industries have seen lower fuel demand and prices over the past several months and continue to face tight operating margins.

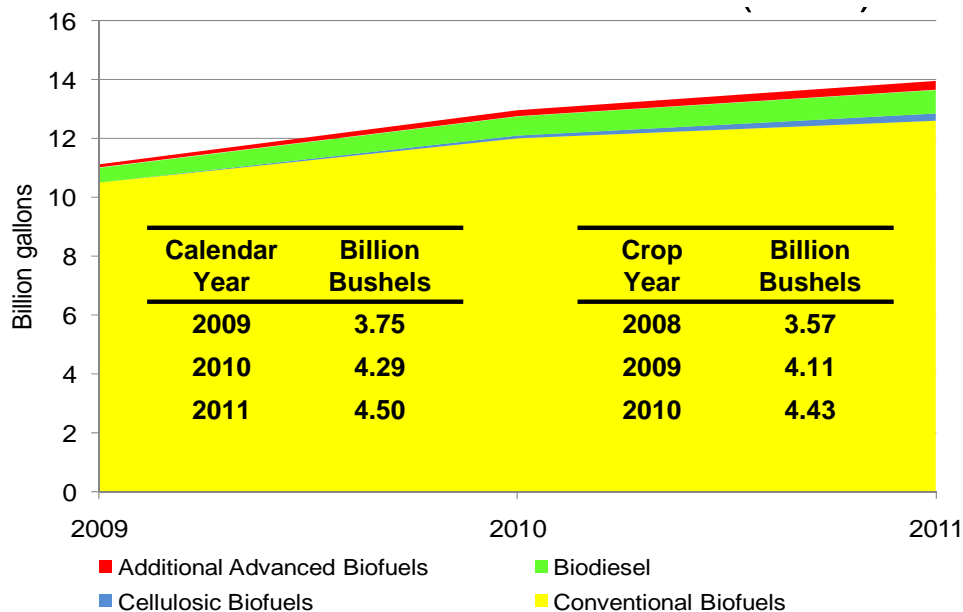
During this general drop in commodity prices and stock indexes, a new pattern may be emerging. If we concentrate on the last three months of price data, the relationship among crude oil, corn, and soybean prices is shifting. Crude oil has experienced a much deeper price decline than either of the crops. Since the beginning of September, crude oil prices are down 50 percent while corn prices are down 39 percent and soybean prices have fallen by 32 percent. Most of this separation has occurred since mid-October.

**Figure 2. Dow Jones Index, Crude Oil, Corn, and Soybean Futures (Sept. 2, 2008 = 1)**



The Dow, while being rocked by swings both up and down, has shown some long run stability. This may be providing some outside support for agriculture. But a more likely reason is embedded in the 2007 Energy Act. In 2009, the Renewable Fuels Standard calls for 11.1 billion gallons of renewable fuels. Biodiesel is to make up at least 500 million gallons of that target and corn-based ethanol could be used for 10.5 billion gallons of the standard. Figure 3 shows the Renewable Fuels Standard for the next 3 years and contains a translation of the conventional biofuels portion into potential corn demand via ethanol. This shows the continued growth needed in the ethanol industry in order to meet the standard. Biodiesel blending in the standard is to reach 1 billion gallons by 2012. As most of U.S. biodiesel is created from soybean oil, the same sort of translation can be done. If soybean oil was the only feedstock for biodiesel, then by 2012 over 20 percent of the U.S. soybean crop (based on 2008 production) would be utilized for biodiesel. Of course, there are several other feedstocks for biodiesel, but it shows the relative size in the growth of the biodiesel industry needed to meet the Renewable Fuels Standard.

**Figure 3. Renewable Fuels Standard, 2009-2011**



Over the next few crop years, ethanol will continue to require more corn and biodiesel will require more vegetable oils and animal fats. And the standard may be providing some support for crop prices even today. One possible reason for the change in the relationship between oil and crop prices is the standard and the need to maintain biofuel and crop prices at a level where biofuel plants will continue to operate and the standard will be met.

Many of the factors influencing crop prices today will continue to affect crop prices throughout the 2008 and 2009 marketing years. The condition of the general economy will be a major driving factor. Corn and soybean stocks remain tight in the U.S., leaving us with little cushion in case of production shortfalls. The biofuel industry continues to build out and the livestock industry could continue its consolidation. Agriculture has expanded to meet food, feed, and fuel demand. In doing that, agriculture has also taken on the volatility that comes with the energy sector. And we are seeing that volatility in our crop prices, input costs, and land values.

*Chad Hart*

### **Milk Production up 1.4%**

October 2008 23 major dairy states milk production rose nearly 1.5%. Production per cow was almost unchanged from one year ago, up only 3 pounds. Milk cow numbers were 105,000 more than Oct 07 and 1000 more than Sept 08. September milk production was revised down by 13 million pounds, a 0.1% point decrease.

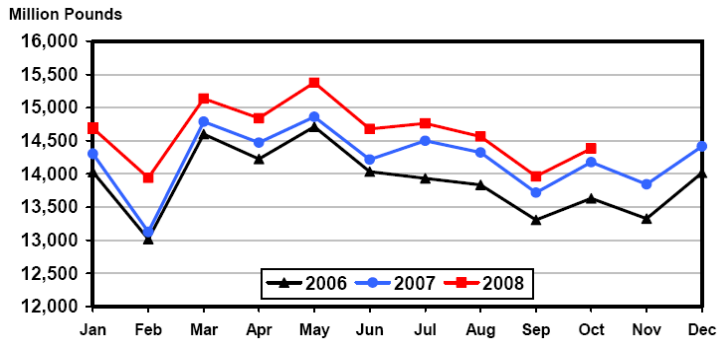
Iowa July 08 milk production was up over 3.7% compared to one year ago. Cow numbers were the same as one year ago, but milk production per cow was up by 60 pounds. June 08 Iowa cheese production was 8.3% higher than one year ago and -1.5% more than May 08.

#### **Milk Production: Selected Dairy States, Oct 2008**

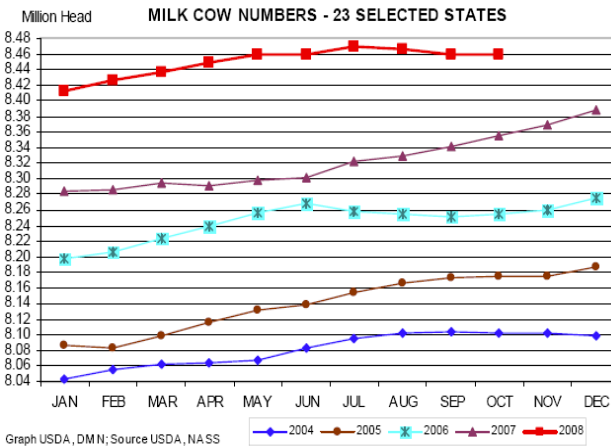
State	thousands	thousands	% change	pounds	pounds	% change	million pounds	million pounds	% change
	2007 cow numbers	2008 cow numbers		2007 milk per cow	2008 milk per cow		2007 total milk production	2008 total milk production	
Iowa	215	215	0.00%	1630	1690	3.68%	350	363	3.71%
MN	463	465	0.43%	1530	1575	2.94%	708	721	1.84%
WI	1249	1253	0.32%	1600	1625	1.56%	1998	2036	1.90%
IL	103	102	-0.97%	1490	1490	0.00%	153	152	-0.65%
CA	1826	1839	0.71%	1870	1840	-1.60%	3415	3384	-0.91%
CO	120	130	8.33%	1930	1885	-2.33%	232	245	5.60%
ID	522	554	6.13%	1880	1880	0.00%	981	1042	6.22%
NM	337	334	-0.89%	1845	1920	4.07%	622	641	3.05%
PA	551	549	-0.36%	1610	1570	-2.48%	887	862	-2.82%
NY	626	625	-0.16%	1630	1620	-0.61%	1020	1013	-0.69%
TX	350	388	10.86%	1740	1790	2.87%	609	695	14.12%
23-State	8355	8460	1.26%	1697	1700	0.18%	14176	14382	1.45%
US total	9181	9269	0.96%	1674	1679	0.30%	15370	15560	1.24%

USDA estimated that 236,200 dairy cows were slaughtered in Oct 08. This is up 27,600 from Sept 2008 and 12,400 less than one year ago.

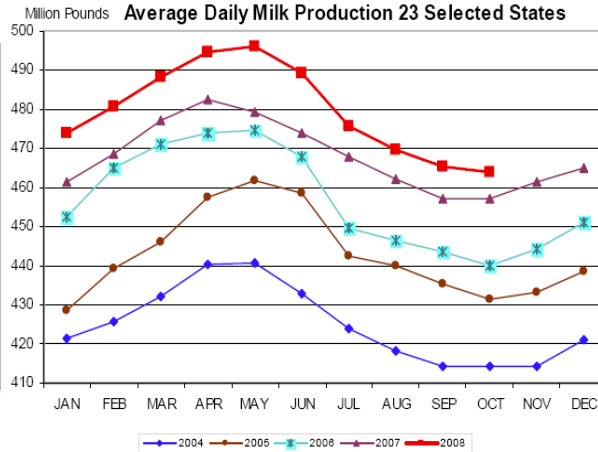
## Monthly Milk Production 23 States



Source: Milk Production, NASS



Source: Dairy Market News

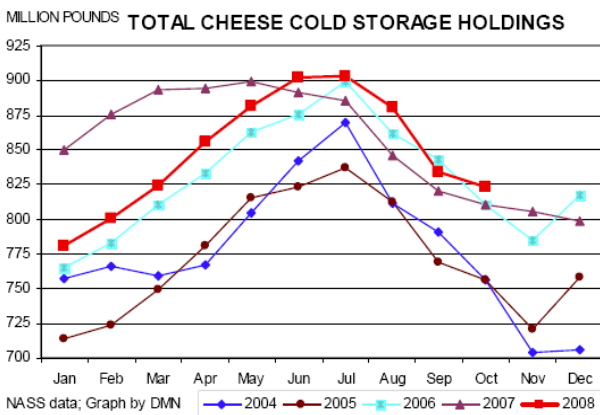


Source: Dairy Market News

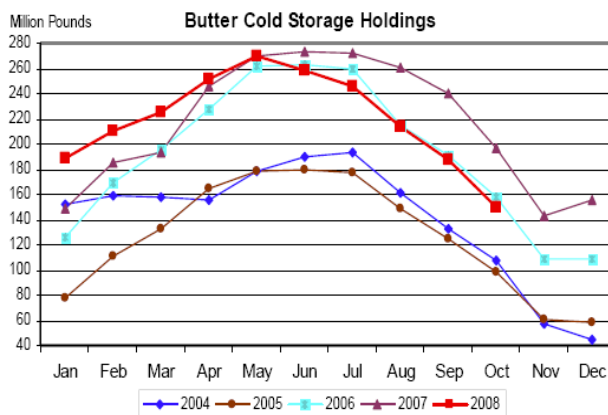
## Demand or Disappearance

Commercial disappearance during the first nine months of 2008, compared to the comparable period 2007, rose by +2.8% totaling 143.4 billion pounds. During the second quarter use declined slightly in percentage increase to +2.3%. Cheese disappearance was weaker during the second quarter 2008. The Jan-Sept 08 American cheese use was 1.9% and other cheese off by -1.6%, NDM 18%, butter 17.7% and fluid milk -0.4%. During the most recent 3 months with records July-Sept, total commercial disappearance is up 2.5%. Specific categories of products were as follows: butter 12.8%, NDM 7.2% and fluid milk 1%. However the entire 3<sup>rd</sup> quarter increase in cheese use was due to exports. Cheese demand for the 3<sup>rd</sup> quarter rose only 1.1% which is about half the historic increase.

Cheese and butter inventories declined in October by near seasonal amounts. Except American style cheese were not drawn down as rapidly as usual and butter inventories declined more rapidly than usual.

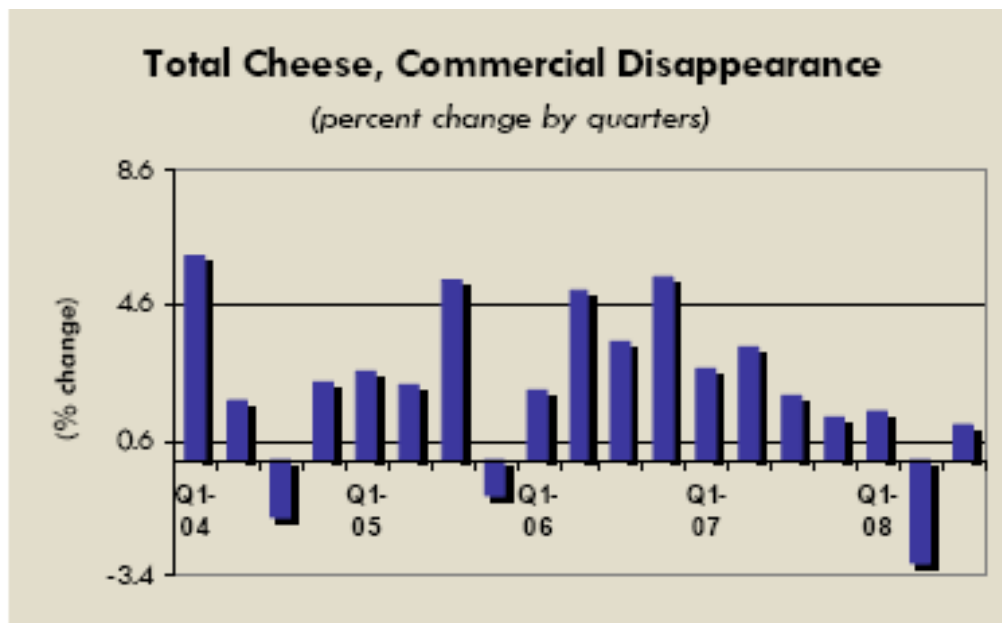


Source: Dairy Market News



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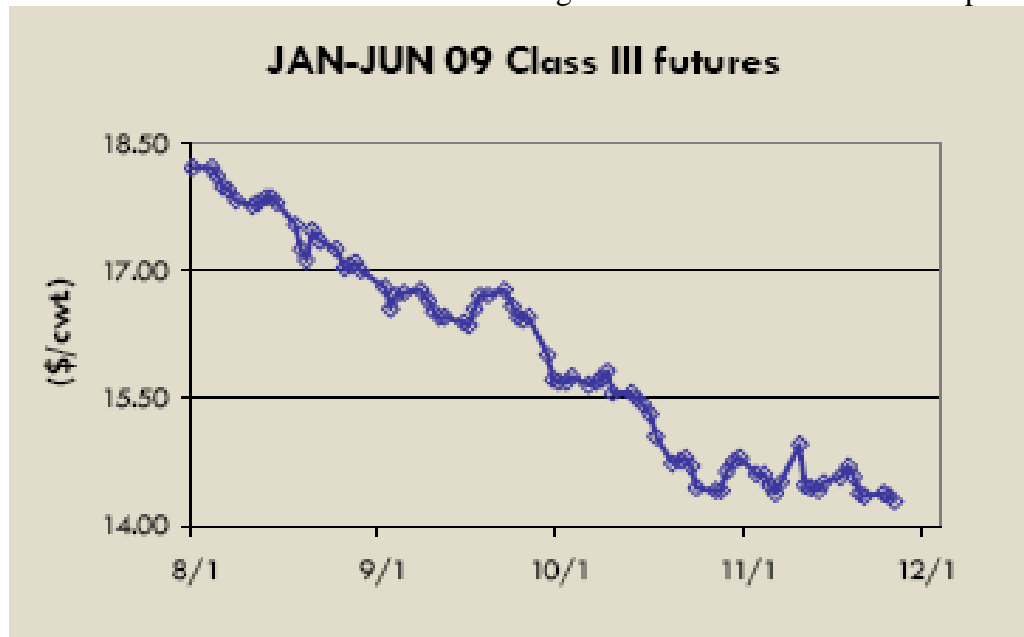


Source: Daily Dairy Report

The Consumer Confidence Index reported in November rose to 44.8, up 6.1 points from October. Lynn Franco, director of the Conference Board’s Consumer Research Center was quoted as saying that “Consumers remain extremely pessimistic and the possibility of improved economic growth for the first half of 2009 is unlikely.”

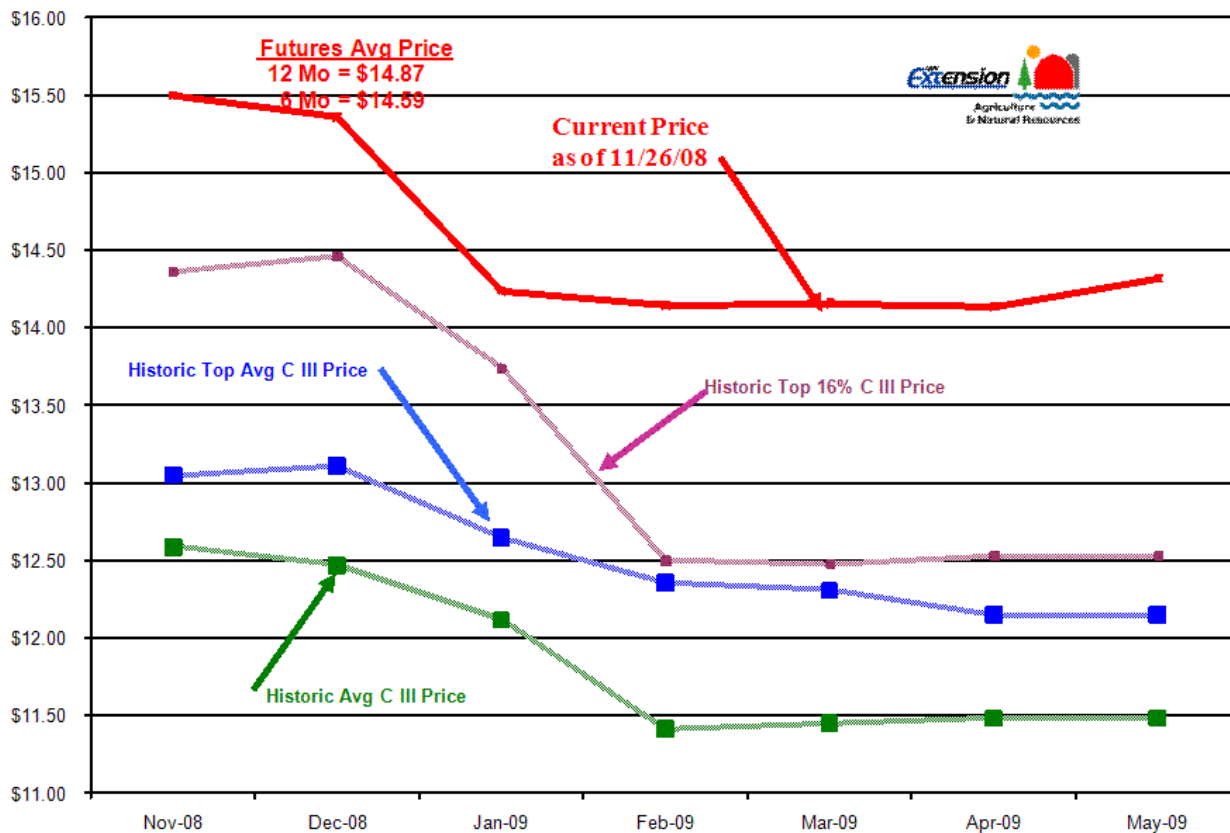
#### Analysis

Cheese prices are showing some strength recently. From Nov 13 to Nov 26 cash cheese price rose 9.5cents mostly on unfilled orders. That shows an unwillingness of cheese sellers to move product at early Nov prices.



Source: Daily Dairy Report

Milk pricing opportunities have pretty much disappeared, at least compared to production costs, even though the futures prices available are above historic amounts. My latest Iowa dairy budgets showed production costs ranging from \$14.60 to just over \$17. The closest to breakeven was the freestall model selling at least 24,000 pounds of milk per cow. The most recent milk-feed ratio was calculated at 2.13. The Oct 08 feed price ratio was revised up, to 2.00. Iowa corn prices may reach near \$3 per bushel.



Source: Hedging Opportunity web site, UWEX

## Iowa's Housing Picture

With the housing crisis rippling through the economy it is becoming apparent that Iowa cannot escape from the national crisis or the conditions that brought them about. The perception has been that Iowa would be immune to the major impacts due to a relative lack of speculative activity and the corresponding increase in housing values. While the argument may be true to a degree, speculation in other areas of the country was driven by the expectation of economic growth and lower levels of housing speculation in Iowa reflects expectations of lower economic potential which is not a positive on its own. Iowa lags many states in demand for retirement and second/vacation housing eliminating one source of speculation; however the metro areas did experience some speculative growth. Particularly in Iowa, sustainability of housing demand depends on economic fundamentals and the potential for economic growth particularly in employment.

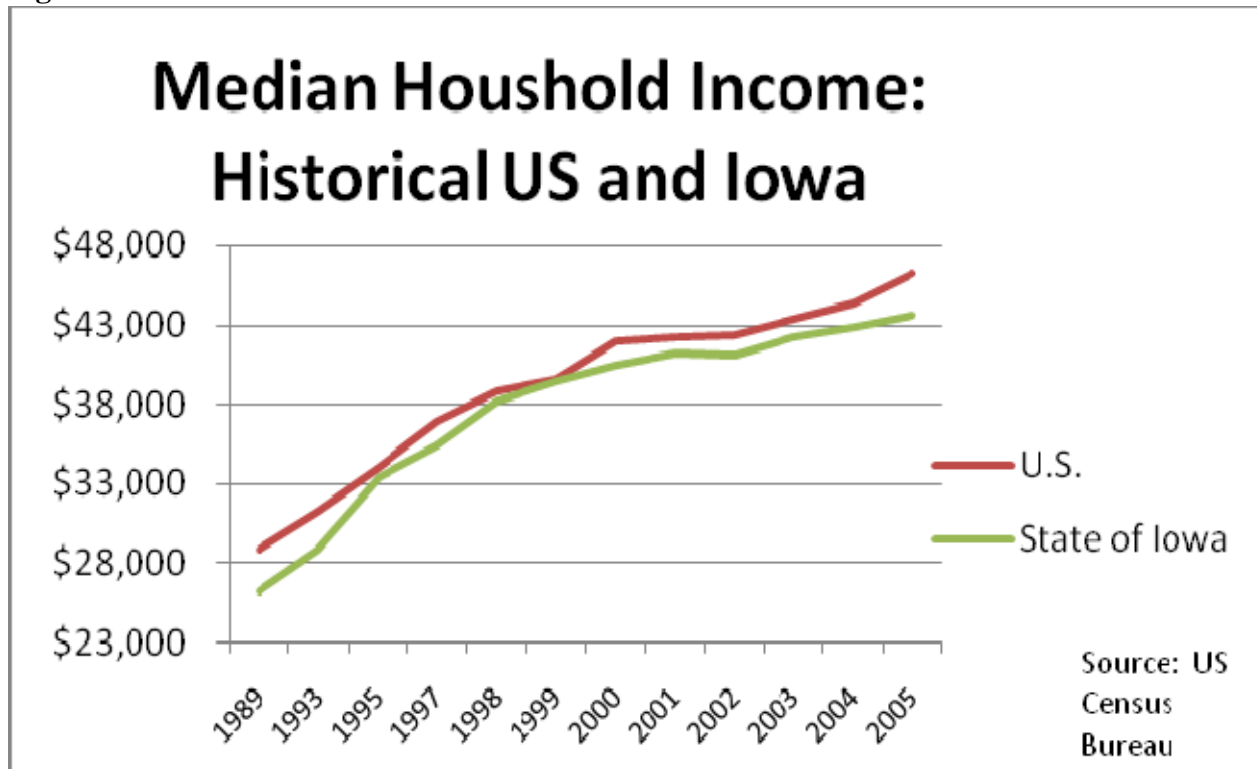
### Mortgage Practices

While sub-prime loans have been blamed for the nation's housing ills their contribution to a typical bank's loan portfolio might be a paltry 5%. A true sub-prime or BCD paper loan is issued to borrowers with poor or non-traditional credit. Typically a sub-prime borrower was required to make larger down payments, agree to pre-payment penalties and accept higher interest rates than conventional borrowers. Subprime loans may have started changing how residential mortgages were underwritten and approved but the mortgage industry as a whole practiced loose lending practices. Alt-A loans, an altogether different entity than sub-prime, marketed to borrowers traditionally shut out of the housing picture. Alt-A loans allowed borrowers to be approved for mortgages without documentation of assets, income or employment and sometimes all three. With more layers of risk to the loan, there is a higher interest rate and less favorable loan terms. This makes Alt-A loans potentially more dangerous than sub-prime loans in grim economic times because these borrowers were qualified on the basis of their credit score rather than their ability to repay. Alt-A loans also provided many borrowers the opportunity to purchase a home with little or no down payment by piggy-backing a first and second mortgage with loose qualifying terms.

The notion that the housing crisis can be blamed on unqualified or greedy borrowers tends to point the finger at Alt-A and sub-prime loans but Fannie, Freddie, FHA, and the VA were backing risky loans at the same time. With good credit scores borrowers could be approved at 65% of their monthly *gross* income for conventional and VA loans while FHA loans would approve borrowers with poor credit with down payments as low as 3%. Traditional underwriting rules were abandoned in the mortgage industry and homeownership grew.

While Iowa may have had fewer unscrupulous and fraudulent lenders, our rules and regulations concerning who could lend in the state were about average for the nation. The demand for the riskier loans wasn't just tied to home value appreciation but also to economic fundamentals such as declining real wage power. The Federal Reserve Bank of New York data suggests that Iowa has 1.2 sub-prime loans for every 100 housing units while the national average is 2.2 per unit. As expected Iowa lags the nation in true sub-prime loans. The problem is riskier loans were made to people with good and bad credit who had some combination of these risk factors: too much debt, low income, high loan to value ratio, low cash reserves, self-employment, poor employment history. Why would Iowa not have its share of these types of borrowers who aren't counted in the sub-prime data? Around the peak of the housing boom in 2005 Iowa's median household income was only 94% of that of the nation and while household income across the nation grew 10% between 2000 and 2005, Iowa's only grew 8%. With incomes lagging behind the nation it makes sense that if even without a large percentage of sub-prime loans in Iowa, our risk is still very real to defaulting loans.

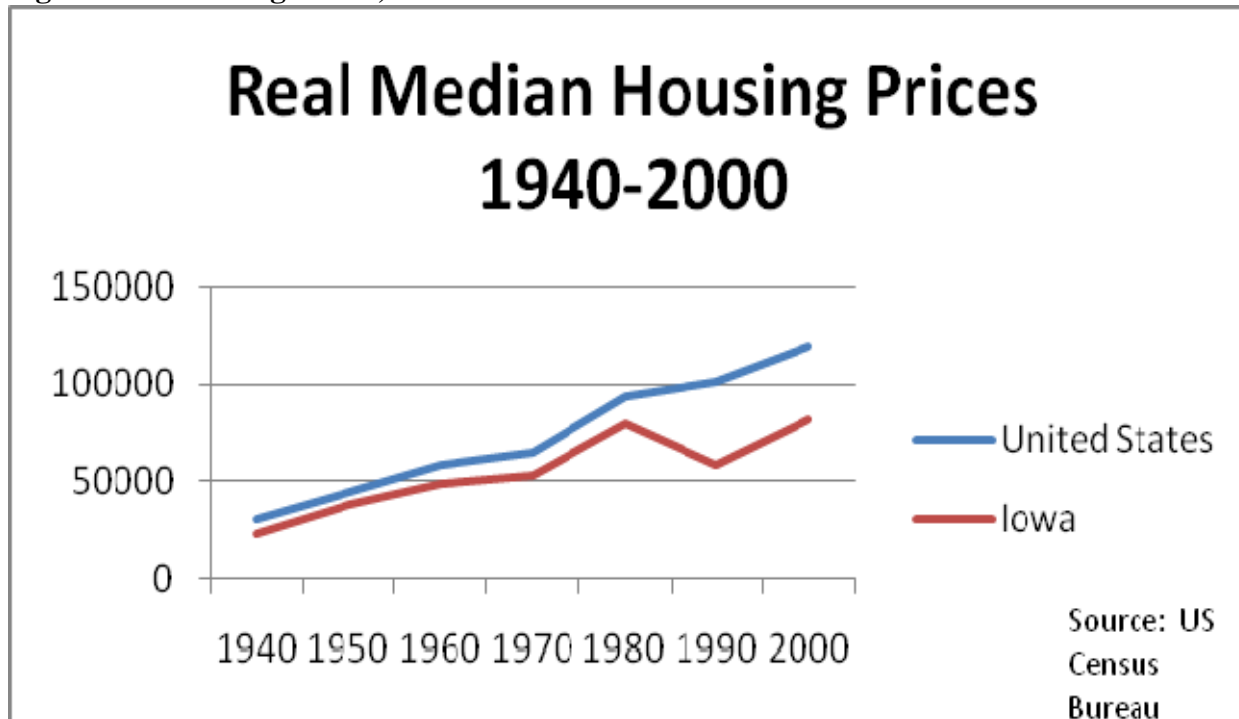
**Figure 1.1 Income Data**



*Employment, Income and Housing*

In Iowa's housing market, the best indicators of stability are incomes and employment. As illustrated above Iowa lags the nation in median household income, but the buying power of that income in the housing market is important to housing stability as well. Historical Census Data shows that Iowa's median housing value when adjusted for inflation followed national trends until the 80's at which point values fell more than nationally and were only starting to recover and mimic national trends entering this decade.

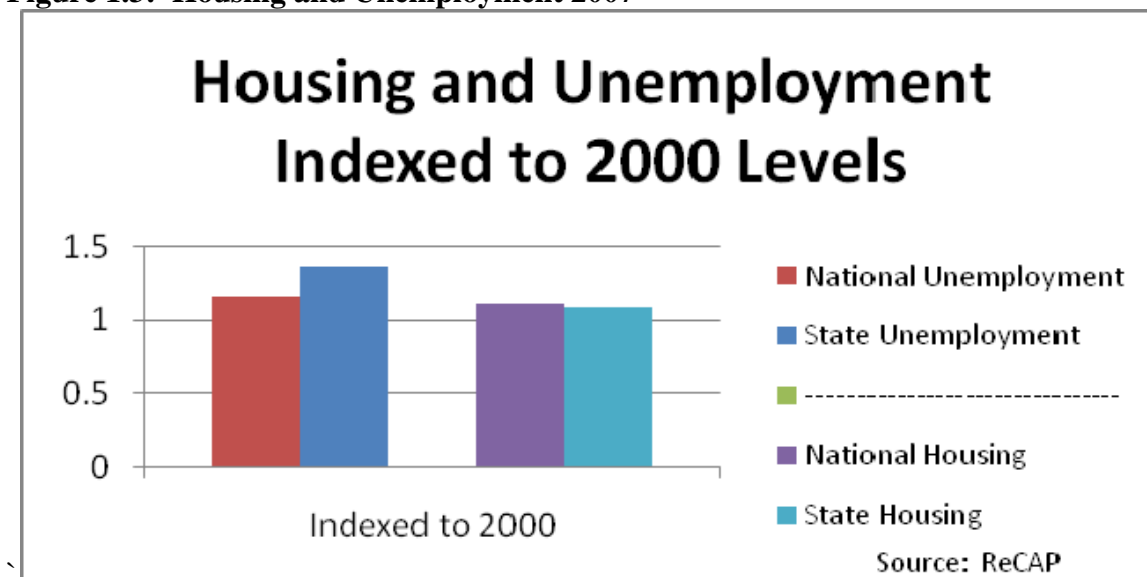
Figure 1.2: Housing Prices, Historical



While the historical data does demonstrate that Iowa lags the nation in housing value, much like income, it also has been prone at least historically, to more volatility than the nation in tough times.

With unemployment rates rising nationally, it is comforting to know that Iowa's unemployment rate also is below the national average but as with all economic indicators is subject to the same forces. Comparing the nation and Iowa in change in employment rate, we can see that Iowa's 2007 unemployment level relative to its 2000 level is higher than that of the U.S. comparatively. When compared to the growth in housing units, it is evident that housing unit growth was more rapid than employment gains suggesting that we may have had more speculation in our housing market than previously thought.

Figure 1.3: Housing and Unemployment 2007

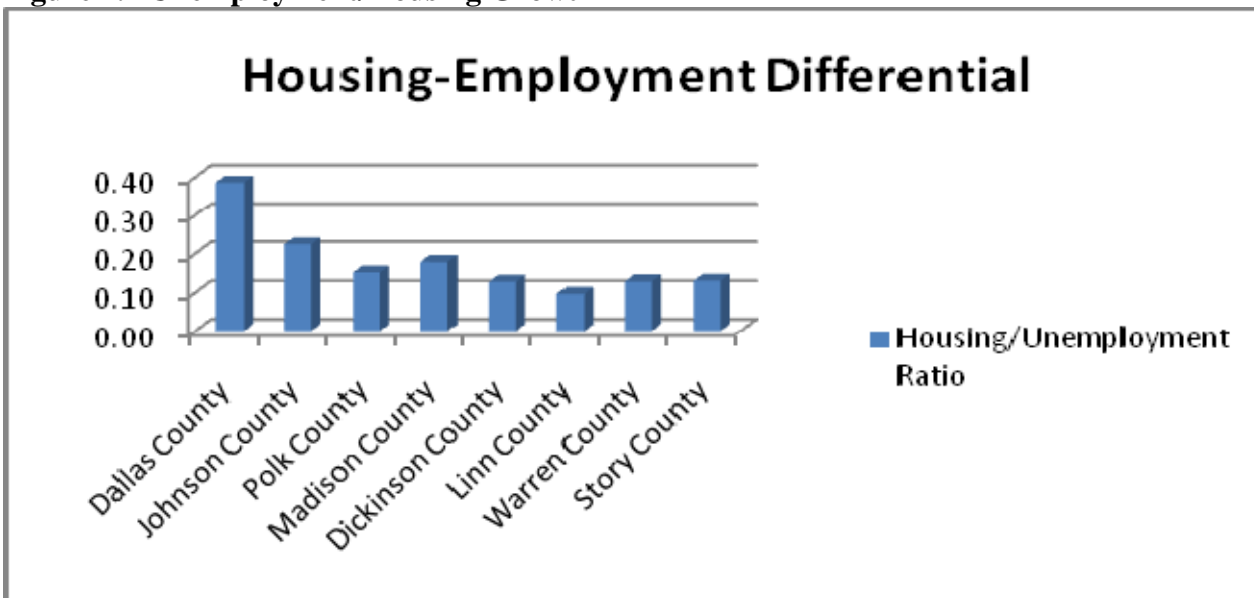


When looking at Iowa's fastest growing counties in terms of housing growth the variation in housing unit growth with employment is dramatic. While the number of housing units increased from 12% in Story County to nearly 40% in Dallas County between 2000 and 2007 none of the counties exhibit a decrease in

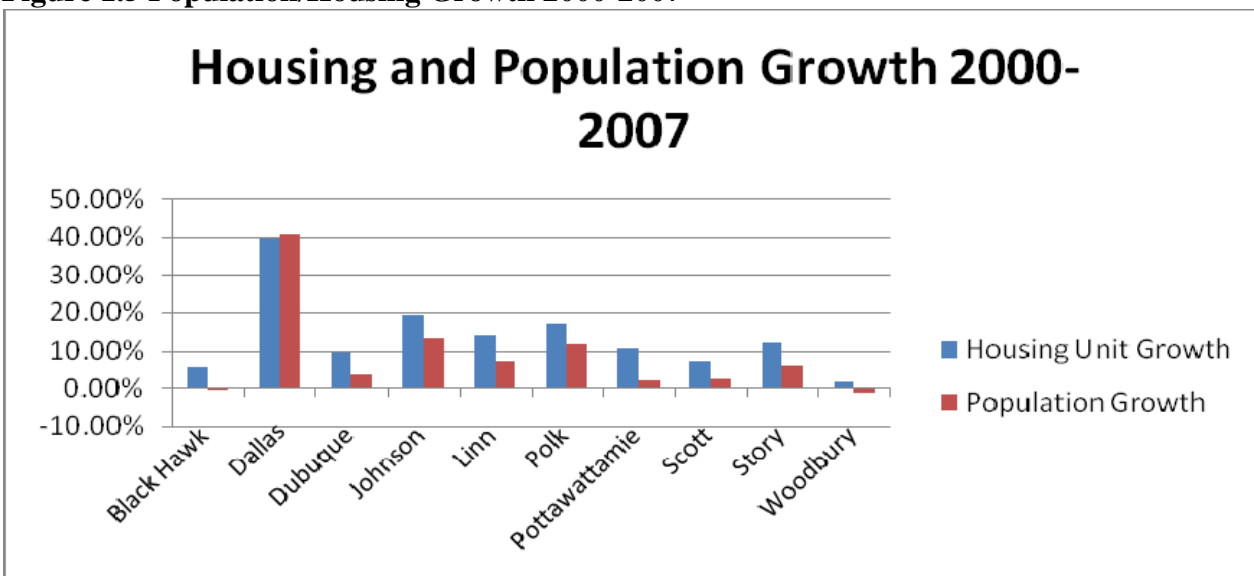
unemployment during the same time period. Comparing the data for these eight counties suggests that Dallas, Polk, Madison and Johnson Counties would be the most vulnerable with respect to a disjoint between housing and employment opportunities. Figure 1.4 illustrates the ratio between unemployment and housing units with the highest differential representing the most rapid increase in housing units with the least corresponding increase in employment opportunities.

Another method of assessing the stability of the housing market is to compare population growth with housing unit growth. It is important to recognize that some housing unit increase can be attributed to obsolescence of old housing stock, which Iowa has considerable stock of however, this does not cause the bulk of the growth. A corollary trend to housing obsolescence is the decline over time of average household size. Between the 1970 and 2000 Census the average persons per household in Iowa fell from 3.05 to 2.46 persons and 2007 estimates suggest that the average household in Iowa was 2.37 persons. Logically, if less people live in each home this means the types of housing we demand will be different and we may need more housing units for the same number of people, all things being equal. Figure 1.5 and 1.6 demonstrate how housing and population growth have occurred in Iowa's metro counties over the period 2000-2007 and the most recent period of 2005-2007. Where population growth is rapidly outpaced by housing unit growth the potential for more ill effects of the housing crisis exist.

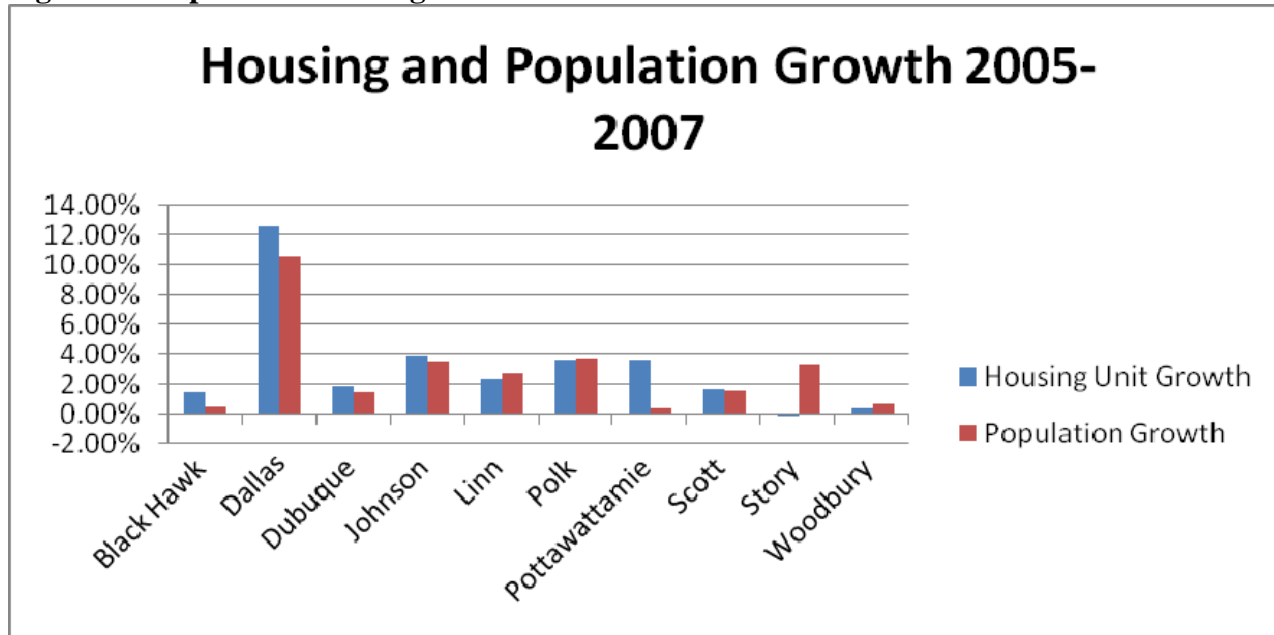
**Figure 1.4 Unemployment/Housing Growth**



**Figure 1.5 Population/Housing Growth 2000-2007**



**Figure 1.6 Population/Housing Growth 2005-2007**



**Conclusion**

With much of the data relevant to the housing picture still unavailable, assessing housing stability in Iowa requires some raw analysis methods coupled with basic economic theory. This is a cursory look at that picture and stability but the initial conclusion is that Iowa is not immune to the housing crisis nor will its correction be painless. Building permit data from the Census Bureau shows that correction is underway with U.S. building permits falling 33% from October 2007 to 2008 and Iowa’s falling 28% during the same time period. While Iowa can breathe a sigh of relief that it has less sub-prime exposure than the nation, there is some question as to how much speculation actually took place in Iowa when looking at employment and population trends. Also, it is probable that Iowa has a moderate to high threat of default from the median borrower given the relatively lower incomes in the state and the state’s reliance on manufacturing during a global recession.

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