What Happened to Cattle Cycles?

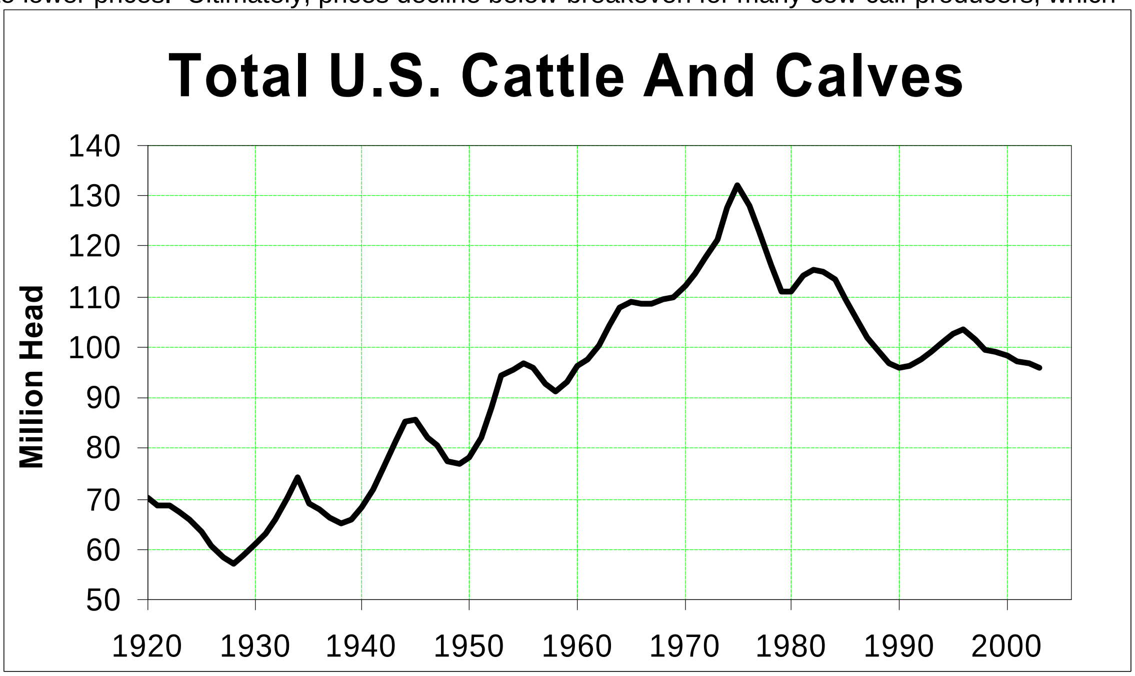
The latest cattle cycle seems to never stop. Is this an indication for the future?

by Bob Price

For as long as most cattlemen can remember, cattle cycles have been reasonably predictable. And so, many thought, were the fundamentals that cause the cattle cycle to move up and down. The present cattle cycle, however, isn't playing by the old rules, causing many to wonder what's going on.

First, Some History

Cattle cycles occur in large part because of the biological nature of production. Cow-calf producers respond to profitable calf prices by holding back more replacement heifers and not culling as many cows. The increase in cow numbers leads to more calves the next year. But additional heifers held back for entry in the cow herd don't increase beef production for at least three years. Eventually, the increase in the cattle inventory and subsequent beef supplies leads to lower prices. Ultimately, prices decline below breakeven for many cow-calf producers, which

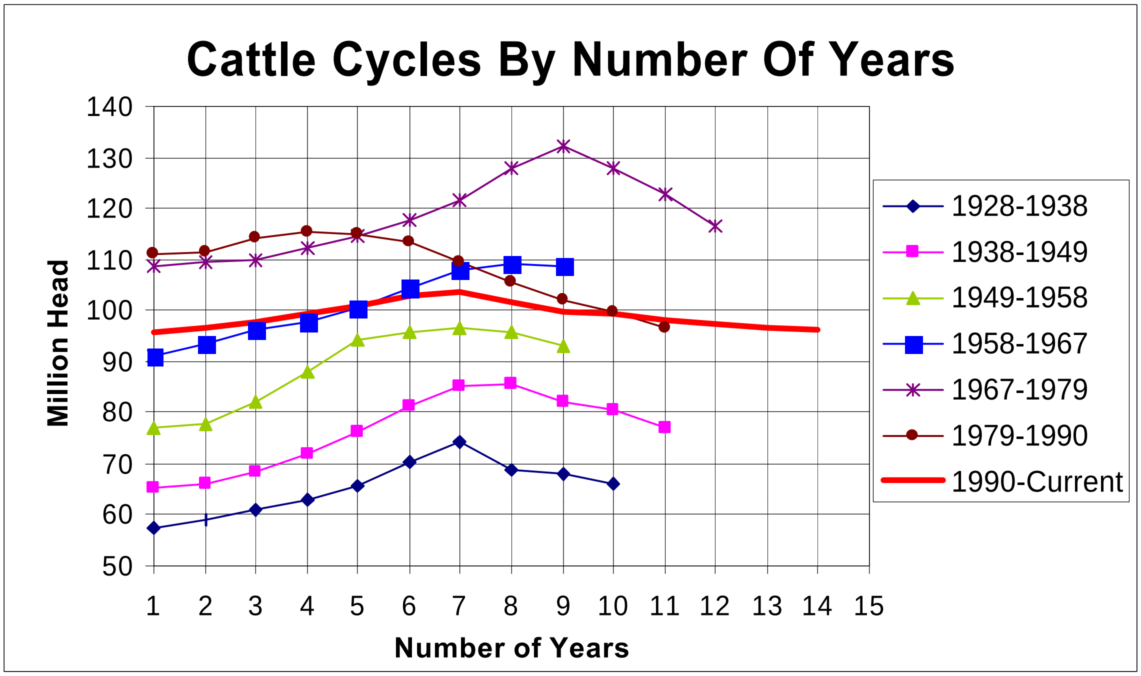


leads higher-cost firms to start liquidating their herds. Herd liquidation continues until prices return to profitable levels.

Cycles are measured from one trough to the next trough. Since 1928, there have been seven clearly defined cattle cycles in U.S. cattle numbers. Two have lasted nine years from cycle low through the rebuilding phase to the next cycle low. One has lasted 10 years, two for 11 years, and one for 12 years. The current cattle cycle that began in 1990 has now run for 14 years and it looks like numbers could be lower for at least one more year before inventories bottom and begin to move higher.

The average length of the six completed cycles in cattle inventories since 1928 has been about 10 years. However, since the peak in total cattle numbers of 132 million in 1975, the last two cycles have shown some significant departures from the historical profile.

On average, inventories increased about six years during each cycle, but during the last full cycle (1979-1990) cattle inventories increased just three years before producers began to liquidate their herds. Historically, periods of declining cattle inventories have averaged about four years. However, liquidation during the 1980s lasted eight years, the longest liquidation phase on record.



What's Going On Now?

The current cycle that began in 1990 saw a gradual buildup in numbers from 95.8 million to 103.5 million over six years. Numbers have dropped back to 96 million over seven years of liquidation – and it looks probable that there will be at least one more year of liquidation before the herd stabilizes and begins to rebuild. This means that the liquidation phase of the current cycle will be at least as long as the liquidation in the last completed cycle.

Prior to 1979, the long-term trend in the U.S. cattle sector was for inventories to increase. At each cycle's trough, the total inventory of all cattle and calves was larger than the lowest inventory during the previous cycle and each successive inventory peak was greater than the previous peak. The cattle inventory peak during the 1979-1990 cycle was the first time the cycle's peak failed to establish a record high. In addition, the 1990 cattle inventory marked the first time a cycle's inventory trough fell below the previous cycle's trough.

In the Jan. 1, 2003 cattle inventory report released by USDA, beef cow producers indicated they held back more heifers in 2002 than they did in 2001 for replacement back into the herd. The price of calves would seem to support that desire. Yet cow producers have not responded to better calf prices in the past few years to really begin an expansion in earnest. Why not?

Drought has been a major factor behind delays in rebuilding the nation's cattle herd. There has been severe drought – much of it lasting for several years – over much of the ranching areas of the Southern Plains, the Northwest U.S. and much of western Canada. The southern portion of the nation has seen some relief from the drought in the past year and there are some signs that enthusiasm for rebuilding is underway. However, the Plains cow/calf areas and the northern mountain regions are still very dry early in 2003.

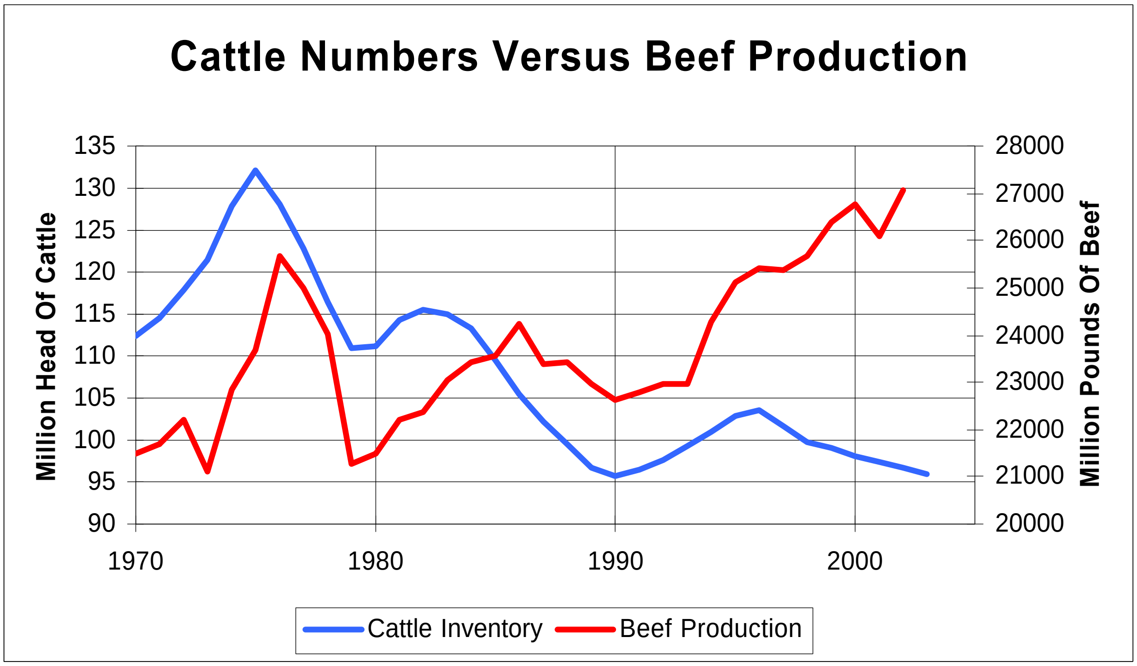
As much as a third of the North American beef cow herd may be located in areas that are still defined as drought areas. Pastures and ranges cannot support any expansion plans, and the prospects for scarce and high-priced grain, forage and pasture puts a big damper on the ability to expand even if the desire is there.

Some producers may feel it is not worth the risk to make expansion plans. Stories have abounded for the past few years about mad cow and foot and mouth disease throughout Europe and Asia. Potential terrorist acts, including possible bioterrorism, could weigh heavily on the profitability of livestock production. The slowdown in the American economy raises concerns about potential ramifications for beef demand. The carrot of higher prices for heifers to go into feedyards may be more tempting than taking the risk of holding them back for herd replacements.

The age of ranchers also is a factor curtailing expansion of cow herds. Many ranchers are getting closer to retirement and do not want to commit the capital to expand. Others are young and don't have the capital to commit.

And some are just feeling like they aren't being rewarded sufficiently for adopting better genetics and delivering better performing animals to make it worth the investment in time and capital. As a consequence, look for the next expansion to be financed more through alliances further up the value chain, with the cattle feeder, packer, and retailer acting more as a partner with those producers who are producing cattle with the qualities they are looking for.

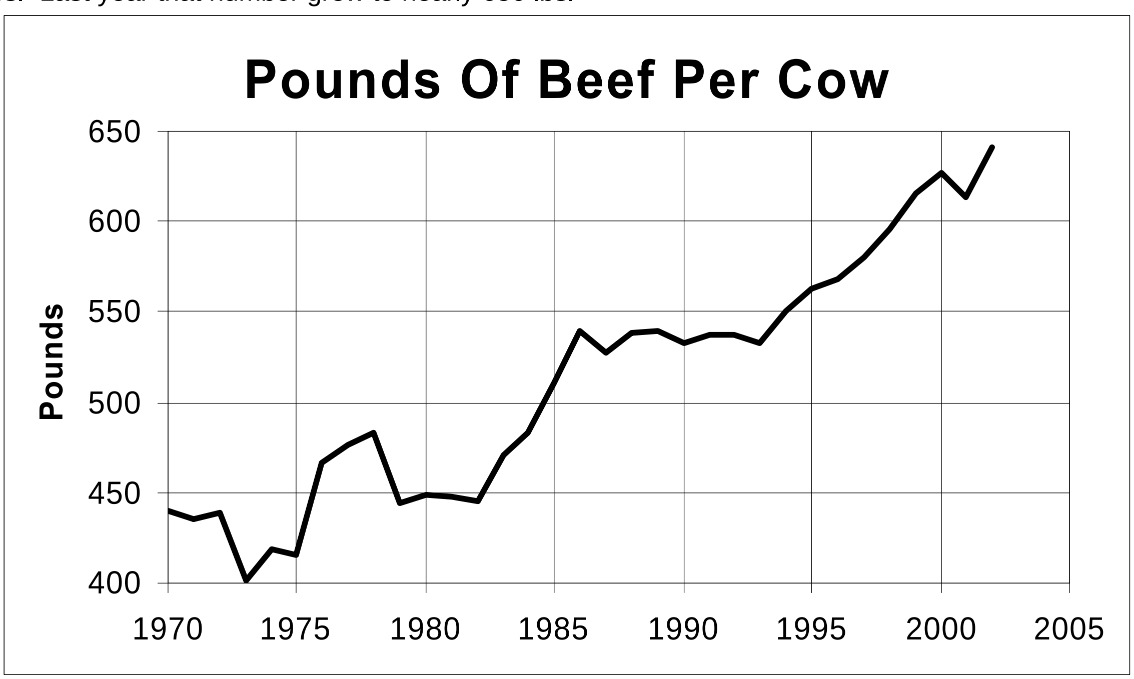
The list of reasons why cattle numbers haven't expanded could go on and on. But, more importantly, there are long-term evolutionary forces at work that have become more evident in the two latest cattle cycles and will continue to be more evident in the future. And it all comes back to one of the most interesting enigmas in the cattle business.



Fewer Numbers, More Pounds

Throughout the production and marketing chain for live animals, the driving force is head count. Feedyards have pen space to fill. Packers have chains to hang carcasses on. Grazing fees are often determined by the number of head to be grazed.

Yet the final product sold to the consumer is pounds of beef. And there have been a record number of pounds of beef produced in this country for three out of the last four years. That record beef production is coming from a cow herd that is down nearly 30% from the peak number seen in 1975. In 1975, each cow in the herd resulted in annual beef production of around 400 lbs. Last year that number grew to nearly 650 lbs.



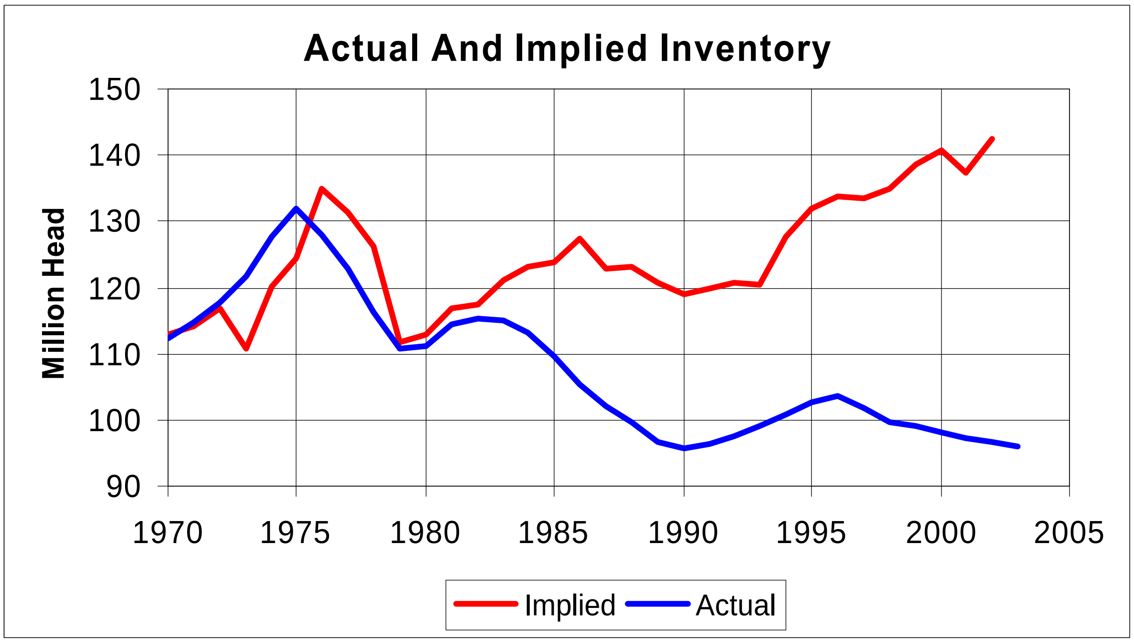
To look at it another way, in the 1970s the size of the average cowherd was just shy of 52 million. If the average cow resulted in the same level of beef production today as it did in the 1970s, it would have required 62 million cows to get the record beef production seen in 2002. Instead, there are only about 42 million cows in the U.S.

Applying the same analysis to total cattle numbers produces an implied herd based on current beef production of 142 million – 10 million above the record seen in 1975 and almost 50% greater than the current actual inventory of 96 million head.

What Are The Implications?

Obviously, we just don't need as many cattle to get the beef production needed to supply current demand at profitable levels as we did 30 years ago. And it means that in the future, beef production will decline more when cows are liquidated and increase more as the cowherd is expanded.

What about the implications to cattle feeding? As cattle numbers have declined, the number of cattle placed into feedyards has remained fairly constant over the past eight years. Virtually all



steers and heifers in the slaughter mix go through feedyards. That means heifers that have not been held back to the cow herds have supplemented the placement of steers into feedyards, as have feeder cattle from Canada and Mexico.

However, it would appear that at some point in the next few years there is a strong possibility that the cattle feeding industry will face a significant problem with over-capacity. More heifers will be held back for the cow herd instead of going through feedyards and supplies of imported feeder cattle will likely not increase and may even decline. There may very well also be a problem with over-capacity in the packing industry in coming years.

Is The Cattle Cycle Dead?

After the rather minor liquidation of cattle in the mid-1960s, there was much speculation that the cattle cycle was a thing of the past and that the growth of the cattle feeding industry would support a continual increase in cattle numbers. That thinking was proven to be incorrect by the mid-1970s. Currently, there is talk coming from some quarters that the cattle cycle is dead and that we won't see much heifer retention in coming years. This line of thinking will likely also be proven to be incorrect.

The best bet would be to see a small buildup in cattle numbers over the next few years before a liquidation phase begins again late in this decade. As long as productivity of the cow herd continues to increase, the longer-term trend points to fewer numbers of cattle needed over the first half of the century to support U.S. domestic demand.

However, a growth in world demand for beef could be a major factor to support larger cattle numbers in coming years. Whether those numbers will be in the U.S. or elsewhere will depend largely on the ability of the U.S. cattle industry to remain economically competitive in the world environment.

Editor's Note—Bob Price, a former TCFA market analyst, is president of North American Risk Management Services, Inc. in Chicago.

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