Economics and the Future

Do we need an alternative production model?

*Story & photo by **Troy Smith,** field editor*

The bull market is over. The bear market has started and has a long way to go before it bottoms out. That's the forecast from economist Bill Helming, who believes the United States is within 18 months of a serious economic recession — more serious than the last one.

"There is a high probability of recession that will be painful, deflationary in nature and worse than the recession of 2008 and '09 — and that one was pretty painful," said Helming at the Economics of the Livestock Industry conference Sept. 21 in Topeka, Kan.

Helming's presentation focused on two messages. First, he talked about conditions in the United States and around the world that portend economic woes generally, and predicted tougher times for the beef cattle business. Secondly, Helming said the beef industry must address the issue of high retail beef prices. He suggested an alternative to the traditional U.S. beef production model — a different system targeting production of the kind of beef that more and more American consumers choose to buy.

In view of current economics and the trends Helming foresees, he believes the beef industry and consumers would benefit from two beef production models — the one that already exists, plus another forage-based system for animals that would produce only high-quality ground beef. If the industry continues on its present course, Helming fears beef could become a luxury item, and numbers of beef producers could diminish dramatically.

For more than 40 years, Bill Helming has been forecasting U.S. and global macroeconomic trends. Gray-haired cattle folk may remember him as chief economist for the National Cattlemen's Association [NCA, now the National Cattlemen's Beef Association (NCBA)] and then as the founder and first manager of the CattleFax economic research and analysis firm. Since then he has been a private consultant working from his home base in Olathe, Kan. Bill Helming Consulting Services clients consist mostly of cattle feeders in the High Plains region.

For producers of all industry segments to understand what lies ahead for the cattle business, Helming believes they need to consider the economic "big picture." He told his Topeka audience that a good gauge for economic performance is gross domestic product (GDP), which measures a country's performance in terms of value added, rather than sales. GDP represents the value of output minus the value of goods used to produce it.

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> **"The stage is set for this ag bubble to burst in a pretty big way."**
> ***— Bill Helming***

Seven years of bad luck

Offering a history lesson in U.S. economic performance, Helming said the average GDP rate of growth between 1929 and 1939 (the Great Depression) was 1.32%. From 1940 to 2007, the average GDP was 3.82%, representing a 68-year "boom." From 2008 through 2014, the average GDP was 70% lower, at 1.18%. For the next seven years, from 2015 through 2021, Helming predicted a still-lower average GDP of 1.15%.

Economic decline is occurring worldwide. Helming said Japan has generally been in a recessionary, and price- and asset-deflationary, mode for the last 23 years. Calling the combined Eastern and Western European economy "lethargic," Helming said it is entering the early stages of recession. He expects Japanese and European economic conditions to worsen during the next seven years. Helming added that Canada, Brazil and Australia are already in recession.

"China continues to have the biggest and worst real-estate debt bubble the world has ever seen. This bubble is going to burst," predicted Helming, calling China's devaluation of its currency a sure sign of desperation. He said China "cooks the books," reporting 7% GDP when it's really less than 3%.

"The Chinese economy will continue to slow down substantially and is headed for a hard landing within the next five to seven years. This will be negative for the U.S. and world economies," Helming stated. "It's already contributing to a bear commodity market trend."

Helming said price, cost and asset deflation is coming back to the U.S. economy for most of the next seven years, and for the first time since the Great Depression. He cited the following key indicators:

- much slower U.S. and global GDP economic growth;
- a much stronger U.S. dollar;
- a major decline in crude oil, gold and other commodity prices; and
- a record-low interest rate yield on U.S. treasury bonds.

"To me, all the indicators point to deflation, with lower prices, lower costs and lower asset values. Many adults in this country have never really experienced that in their lifetimes," stated Helming, warning that producers depending on the value of assets and Social Security could be in serious jeopardy.

Helming predicted a major stock-market decline within the next 24-48 months. He expects a 70% decline in the Dow, resulting in trillions of dollars of wealth being lost. As a result, cattle prices will be sent farther south. He expects the fed-cattle price to be as low as $102 per hundredweight (cwt.) by 2018 or 2019, and maybe lower, with the price for 600-pound (lb.) feeder calves to be around $139 per cwt.

Farm- and ranchland values also will decrease during the next few years, Helming

of the Beef Industry

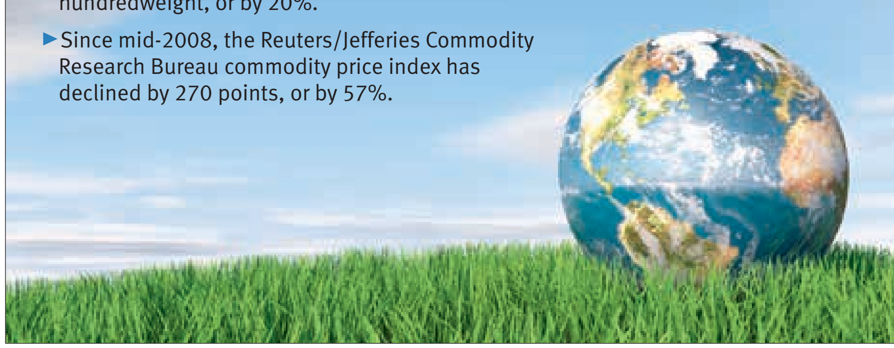
said. They are already down by 10%, on average, but he said they could ultimately decline by as much as 45%. That could be devastating for some producers.

According to Helming, analysis of the overall agricultural balance sheet shows that 82% of net worth is tied up in land. In coming years, farmers and ranchers with large debt will be in the worst position, particularly if it is heavily leveraged debt. Producers with modest, serviceable debt are most apt to handle the challenging times ahead.

"It's a tough-love kind of message, but I want you to know what I believe to be the truth, based on a lifetime of study," said Helming. "The stage is set for this ag bubble to burst in a pretty big way."

Table 1: U.S. and global overall commodity prices are in a major and serious bear market

- During the past 12 months, crude oil prices are down $65 per barrel and 62%.
- During the past five years, iron ore prices have declined 71%.
- Since late 2011, U.S. corn prices have declined $3.75 per bushel, or by 54%.
- Global sugar prices have declined by 69% since 2010.
- Since December 2014, U.S. fed-cattle prices have already declined by $34 per hundredweight, or by 20%.
- Since mid-2008, the Reuters/Jefferies Commodity Research Bureau commodity price index has declined by 270 points, or by 57%.



Fewer cows in the future

Helming expressed confidence that the expansion of the U.S. beef cow herd will be short-lived. He expects expansion to last three to four years and, in 10 years, the breeding herd will be smaller than it is now. His reasons included:

- substantially lower cattle prices;
- high production costs;
- reduced availability of grazing land, due to conversion to crops and urban development;
- regional drought conditions;
- the higher average age of producers;
- difficult entry to the business by young producers; and
- large percentage of small operations.

Helming said the number of small cow-calf operations is significant, because 80% of the nation's herd is represented by producers with 50 cows or fewer. Many have high costs of production. Many are Baby Boomers, dying off, retiring, or slowing down and wanting less risk. Many are selling cows while prices remain relatively high. Helming said these and other realities will result in a net loss of beef cow numbers in the years ahead.

Losing market share

A substantial problem is beef's price and affordability, or the lack thereof. Helming called it a sobering fact that retail purchases of beef account for 15% of average consumer wages, while pork and chicken account for 9% and 5%, respectively. In 2010, the average wage earner worked one hour to buy 4.7 lb. of beef. In 2014, wages earned in an hour purchased 3.7 lb. of beef. This amounts to a 22% reduction in beef purchased per hour of average wage earnings.

Citing data from the North American Meat Institute, Helming said 40% of shoppers are now shifting their protein-buying behavior in order to save money. He called affordability a key driver, and price per pound the No. 1 factor influencing U.S. meat and poultry shoppers. It's the reason beef has lost and may continue to lose market share.

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"Real average U.S. worker wages have declined by over 9% over the past six years. Forty-seven percent of American consumers have no savings. If you think they are cutting back on beef now, just wait to see what happens next," said Helming. "We're facing major competition from pork and poultry in the years ahead."

Helming said that during the last 39 years, from 1976 through 2014, per-capita beef consumption declined 43%, or 40.2 lb. per person. That's an average annual decline of 1.03 lb. per person. Meanwhile, per-capita consumption of chicken increased by 101%, or 42.5 lb. per person. That's an average annual increase of 1.09 lb. per person. For each pound of decreased beef consumption, chicken consumption grew by more than a pound.

Of the beef that Americans do consume, an increasingly larger portion is ground beef. Helming said affordability is the primary reason why total pounds of U.S. beef consumption represented by ground beef increased by 38% from 1970 through 2014. During that period, the portion of total beef consumption represented by whole-muscle cuts decreased by 28%. Since 1970, the portion of all beef consumed in the United States as ground beef has grown from 42% to nearly 60%. Helming predicted a continuing trend. He estimated that by 2040, 70% of all beef consumed by U.S consumers at home and away from home will be ground beef.

It's Helming's contention that for the U.S. beef industry to survive, more ground beef needs to be produced, and it needs to be produced at lower cost so it can be sold at a lower price. However, neither the traditional beef production model nor USDA's beef-quality grading system were built for that. Helming called it a "one-size-fits-all" business model where the vast majority of animals are grain-fed in a feedyard. It encourages larger and heavier beef carcasses, which substantially increases production costs.

The long-standing model emphasizes production of the whole-muscle cuts that consumers are purchasing less and less often. Helming said the system wrongly treats

CONTINUED ON PAGE 208

CONTINUED FROM PAGE 207

ground beef as a byproduct when, in fact, a majority of consumers have come to view ground beef as a mainstream product of choice — a dietary staple. Yet even ground beef has become less affordable.

"You would think that more people within the industry leadership would want to address the issue of beef's high cost, but the industry at large is not paying attention to what beef and competing meat consumers are spending their money on and why," opined Helming. "If the business model and grading system are not changed, then in 35 to 50 years, beef in America will become a specialty product much like lamb and lobster are today."

The fix

Scrapping the current production system is not the answer, but Helming believes the economic situation begs for an alternative. In his opinion, the U.S. beef industry needs two production models — the one that exists and a second model for grass- and forage-fed animals that specifically targets production of high-quality ground beef that could be merchandised at more affordable prices.

Neither would Helming do away with the current beef grading system. He does advocate the addition of a ground-beef component.

"The beef industry and USDA should embrace and establish a very important and much needed addition to the young cattle carcass-quality standards that is based on beef and dairy animals that are grass- and forage-fed only, with no grain, to produce 88% to 90% lean ground beef," stated Helming.

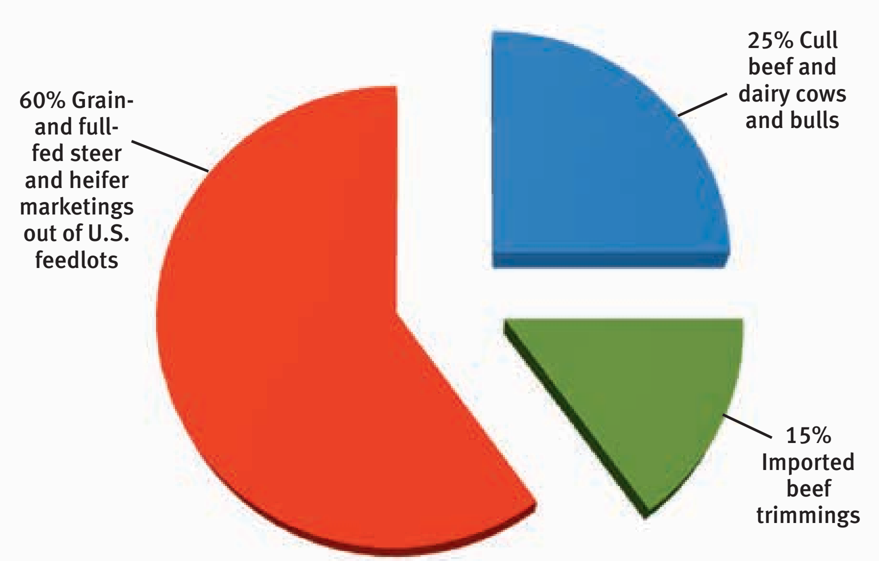
To supply the appropriate type of cattle for this alternative high-quality ground beef production model, Helming believes a significant portion of cow-calf producers would have to commit to producing cattle whose frame scores fall within the range of 3 to 5. He cited data suggesting that cattle having frame scores of 3 to 5 typically exhibit a 40%-42% improvement in dry-matter feed conversion rates when compared with cattle of frame score 6 or larger.

"Today, close to 90% of U.S. beef cattle are frame 6 or bigger. I submit that bigger is not better. Smaller-framed animals with improved feed conversion and lower production costs are better. Lower production costs are much better," said Helming. "To significantly reduce cow maintenance and beef cattle production costs, the size and weight of beef cattle need to be reduced significantly from what typically is the case today."

Helming said cattle of the right type could be grown to slaughter weight on grass and harvested forage. He is involved in a start-up business that involves growing cattle in a drylot on a ration of triticale silage and other forages to slaughter weights of 1,100 lb. to 1,200 lb. (steers) at 30-36 months of age. All animals will be processed as ground beef only.

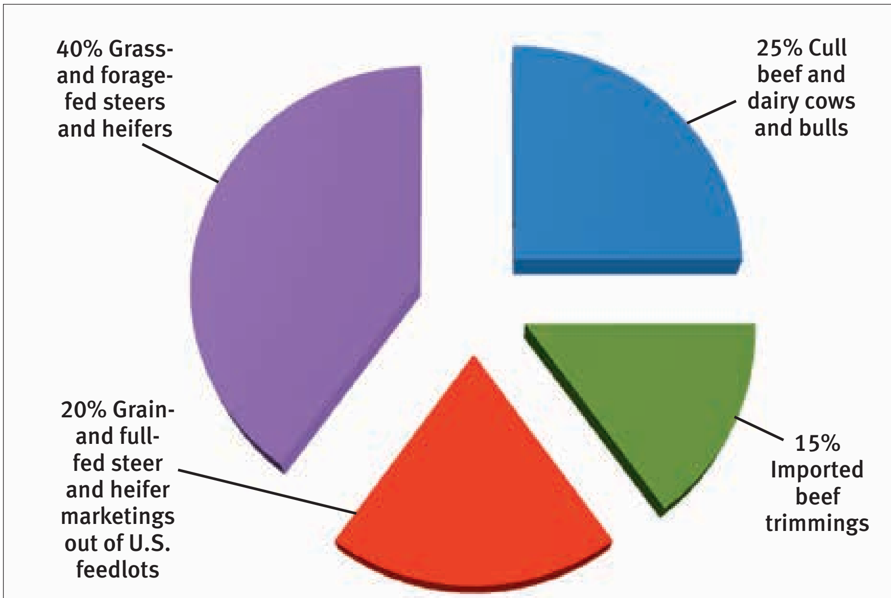
"We need more ground beef at a lower cost. I'm confident that it can be done, probably in a multitude of ways," said Helming, "but beef's cost to consumers must come down if the U.S. beef industry is to survive." AJ

Fig. 1: From where does the very large supply of ground beef (hamburger) that is consumed in the United States now originate?



Source: Based on private beef industry data and the USDA Economic Research Service.

Fig. 2: From where will the very large supply of ground beef (hamburger) that is consumed in the United States come in the years ahead?



Source: Based on private beef industry data and the USDA Economic Research Service.

Editor's Note: *Troy Smith is a freelance writer and cattleman from Sargent, Neb. "Economics of the Livestock Industry," featuring Bill Helming, was part of the Amazing Grazing project's series of educational meetings — a collaboration of the Kansas Farmers Union and the Kansas Graziers Association.* *Funding for this project was provided by the North Central Extension Risk Management Education Center and USDA National Institute of Food and Agriculture, under Award Number 2012-49200-20032.*