Trends in the Choice-Select Spread and Implications to Cattle Producers

Choice-Select topics addressed in this paper:

How is C-S calculated?

What are the trends within C-S?

Why are cattle grading so well?

What market factors influence C-S?

Beyond simple supply and demand.

Is demand increasing or decreasing?

What are the market signals?

What does the future hold for the C-S?

Conclusion

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Introduction

The USDA implemented the beef quality grading system in 1923 to differentiate value. The grades of Prime, Choice and Select (Select is derived from the original "Good") are typical designations for young, fed cattle today, and these grades have established themselves in the beef marketplace. Historically, a very small percentage of cattle reach the Prime grade, and the rest of the cattle are nearly equally split between Choice and Select. The more highly-marbled Prime cuts command a higher price than Choice, which brings more than Select.

In more recent years, fed-cattle marketing has increasingly evolved toward value-based systems or grids. Today, more than 60% of fed cattle are sold in a system that assigns price based on carcass quality grade. In a grid, wholesale boxed-beef values dictate the price producers are paid. The difference between the Choice and Select boxed-beef cutout (primal cut values assembled into one, composite number) is referred to as the Choice-Select spread (C-S), a major factor in establishing fed-cattle value.

The C-S has become a well-tracked metric within the beef industry. When the C-S reaches a high level (>$8/cwt) the industry assumes strong demand for highly marbled, that is, "Choice" beef. When the C-S is low (<$3/cwt), the industry assumes poor demand for Choice. Essentially, cattle producers have established the C-S as the barometer of demand for beef of high quality grades. This "reading" then determines many of the management decisions made by cattle producers, like genetics and implanting or beta-agonist strategies that can positively or negatively impact marbling and quality grade.

The C-S has become the market signal for "quality" within the beef industry, and the basis for significant decisions in cattle management and marketing.

But the beef marketplace has changed over the years, creating a need to evaluate the current degree of effectiveness in this market signal. Branded programs, especially those like *Certified Angus Beef* ® brand (CAB®) that use "upper 2/3 Choice," have significantly impacted the product mix that is sold as Choice.

Such branded programs are not included in the Choice boxed-beef cutouts, but make up a significant part of the beef trade. The retail and foodservice industries have become more consolidated and sophisticated in their procurement. These large organizations work directly with packers in longer-term formulas and forward contracts. Because of the out-front nature of these contracts, they are not typically considered “spot market” and, again, not included in certain reported cutouts. These and other changes are cause for the beef industry to seek a better understanding of the reported cutouts, the C-S and the role it plays in our cattle marketing systems of today.

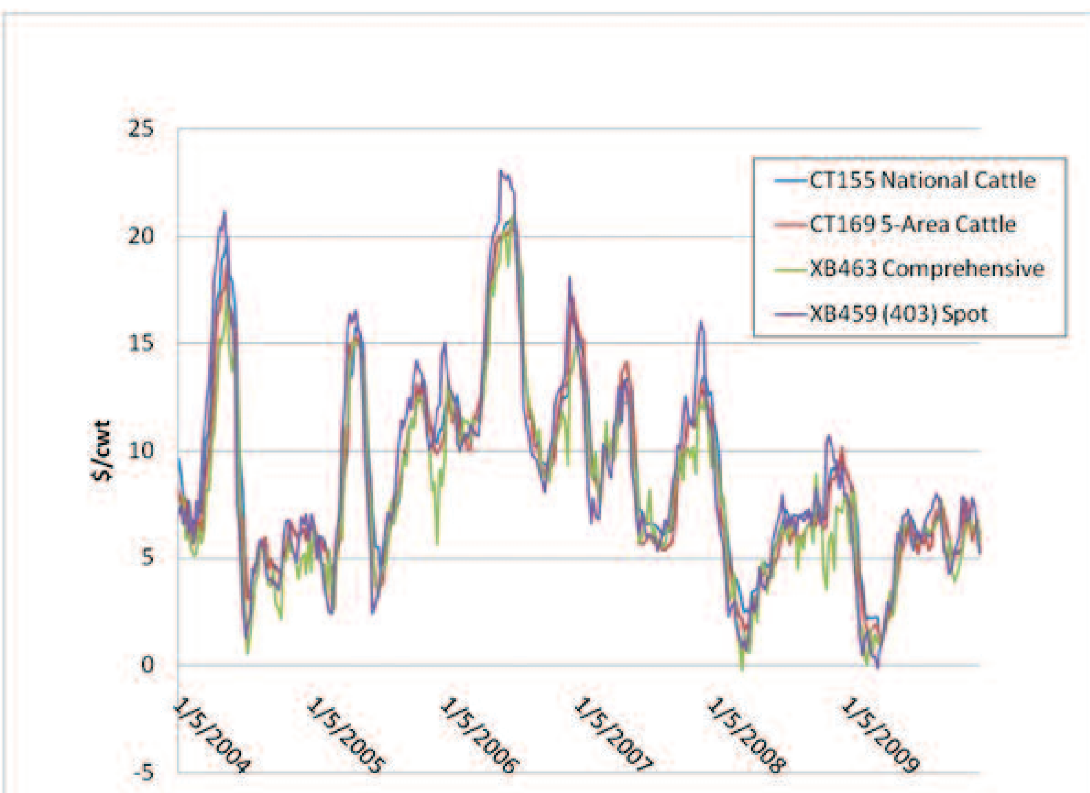
On an annual basis, the C-S has been trending lower since 2006. The 2008 and 2009 spreads were the lowest in the past 10 years. Does this trend suggest decreasing demand for highly marbled beef? Does the beef industry now need to put less emphasis on quality and more on red-meat yield? Some industry observers have stated just that. Yet during this same time period, the premium-quality branded program that is *Certified Angus Beef* ® reported year-over-year record sales growth, setting new annual highs in each of the last three years. In the 27 months from Oct. 1, 2007 until Jan. 1, 2010, brand sales grew by 110 million pounds, or 18.3% for that period. In its most recent fiscal year, CAB® sales increased 4% over 2008, and in that same time, the Urner Barry Yellow Sheet reported the spread between CAB® and Choice increased nearly 5%. This growth in sales and premium would strongly support increased demand for premium-quality grade beef. These contradictory market signals need to be understood by stakeholders in the cattle industry if they are to supply the appropriate quality grade beef consumers are demanding.

How is the C-S calculated?

Before delving into a discussion on the C-S, it is critical to understand the USDA boxed-beef cutout values and how they are determined and reported. Relating to the C-S, there are two basic fed steer and heifer cutout values reported by USDA: the LM_XB403 (403) and LM_XB463 (463). The 403 is a daily report that has been established for many years. The 403 only contains negotiated, domestic sales to be delivered within 21 days. This report is typically considered the “spot market.” The LM_XB459 (459) is a weekly report, but an average of the daily 403 reports.

GRAPH 1

Comparison of Different C-S Calculations



The 463 report, sometimes referred to as the Comprehensive Cutout, was established after Mandatory Price Reporting (MPR) came into effect in April 2001. The 463 contains the weekly spot market as well as formula and contract sales, export sales and negotiated out-front sales for Prime, Choice, Select, Branded (both Low Choice and Premium Choice) and Ungraded products. Ultimately, while both the 403 and 463 cutouts are derived from boxed-beef sales of fed, nondairy-source steer and heifer beef, they include different types of sales, and sales from different time periods. However, while these cutouts are technically different, they trend tightly together over time and the resulting spreads are nearly identical.

The C-S paid to cattle producers when selling on a grid or value-based marketing system is listed in two different reports: the LM_CT169 5-Area Weighted Average (169) and LM_CT155 National Simple Average (155) reports. With some minor and understandable differences, these reported spreads also closely follow the C-S calculated from the boxed-value reports. With few exceptions, the four C-S are synonymous *(Graph 1)*.

Unless otherwise noted, the C-S spread calculated from the 463 will be used for future discussions within this paper. In a few situations, Urner Barry *Yellow Sheet* data will be used, because that report specifically tracks CAB® prices. Since Urner Barry data is collected through market surveying, it is not an apples to apples comparison to the USDA MPR data. When Urner Barry data is used it will be noted as "Urner Barry Choice," or "Urner Barry CAB®," etc.

What are the trends within the C-S?

From 2002 through 2009, the C-S has averaged $8.21/cwt, with a weekly high peak of $28.90 and a low of -$0.19 *(Table 1)*. The C-S exceeded the average 42% of the weeks. Since 2002, the highest annual average C-S occurred in 2006 at $13.49 and the lowest was the most recent year of 2009 at $4.70. Of note, the spread was above $12 for 18% of the weeks and below $4 for 14% of the time period. Maybe as important as the average is the range of the spread over a given year. The average range for the C-S from 2002 to 2009 was $12.89. The import and export disruptions caused by BSE and other market conditions in 2003 created very volatile beef pricing that caused the spread to experience a $25.10 range in a 52-week period. In 2004, another volatile beef market saw a wide C-S range of $17.13.

What market factors influence the C-S?

The C-S is a function of both product demand and supply. To evaluate the demand side, one can look to simple correlations to cutout and primal values to identify major drivers of the C-S. From the years 2002 to 2009, the total Choice cutout was correlated to the C-S but much stronger correlations were found when looking at the Choice rib and loin primal values, independently *(Table 2)*. This would suggest that the sole demand drivers of the C-S are the Choice rib and loin prices. The Select cutout values essentially have no effect on the C-S. Some industry observers have commented that a narrowing C-S may be signaling an increased demand for Select product. This statement is not justified in these correlations.

TABLE 1

Annual Choice-Select Spread Average and Ranges

	2002	2003	2004	2005	2006	2007	2008	2009	Avg.
Avg.	$ 6.10	$11.60	$ 6.85	$ 8.46	$13.49	$ 9.28	$ 5.17	$ 4.70	$ 8.21
High	$10.98	$28.90	$17.69	$15.09	$21.09	$13.61	$10.86	$ 8.07	$ 15.79
Low	$ 2.29	$ 3.80	$ 0.56	$ 2.67	$ 8.59	$ 5.48	$ (0.19)	$ 0.01	$ 2.90
Range	$ 8.69	$25.10	$17.13	$12.42	$12.50	$ 7.28	$ 9.81	$ 8.06	$ 12.89

On the supply side, the C-S is logically correlated with the amount of Choice grading beef available. There is a strong negative relationship between the seasonal grading percentage and the C-S *(Graph 2)*. As cattle hit their typical grading peak in the Jan-Mar time period, concurrently, the weakest C-S spread occurs. This is understandable because not only are supplies large, but demand for middle meats is at its seasonally weakest point. In contrast, middle-meat demand is quite strong through the late spring and early summer months as grilling season gets underway. This coincides with the seasonal low in cattle grading, when the C-S typically reaches seasonal highs. We also typically observe the C-S rallying through the early fall as grade declines but holiday rib and tenderloin buying demand is strong.

Beyond the seasonal trends, a general downward trend in the C-S has occurred since 2007, driven by both reduced demand and large Choice supplies *(Graph 3)*. In 2009, the wholesale beef demand index was at its lowest point since the index was created in 1998. To compound lower overall beef demand, a poor U.S. economy has significantly hindered mid-scale and above foodservice businesses, the segments utilizing significant amounts of Choice beef. As well, export opportunities with the Pacific Rim countries are still limited from the BSE fallout. Japan and South Korea have a preference for Choice and higher cuts. However, due to age requirements for import (< 20 months of age), buyers have had limited access to Choice or better beef and more typically have to buy an ungraded product.

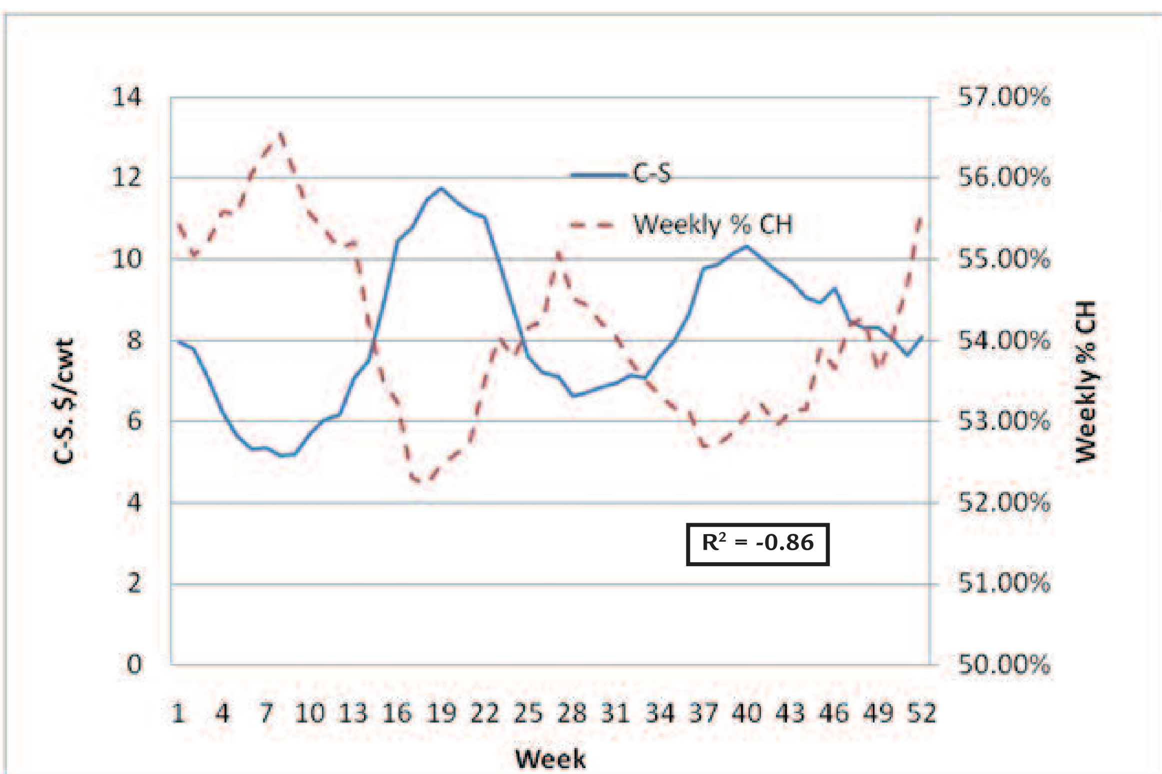
TABLE 2

Correlation Between C-S and Weekly Cutout/Primal Values By Grade: 2002-2009

	CH	SE
TOTAL CUTOUT	0.38	0.04
Rib Primal Cutout	0.56	0.14
Loin Primal Cutout	0.63	0.16
Chuck Primal Cutout	-0.06	-0.11
Round Primal Cutout	0.05	-0.09

GRAPH 2

Seasonal Relationship Between Weekly C-S and % CH: 2002-2009



On top of this lagging demand, the beef industry has experienced an incredible improvement in quality grade in the past two years. After a decade of flat to declining marbling levels in the U.S. fed-cattle population, a dramatic shift in the percent of cattle grading Choice or higher has occurred. White papers published by Corah and McCully (2005, 2009) have discussed both the downturn and the improvement, and industry professionals have contemplated most conceivable causes and effects surrounding the changes in quality grade. Reasons withstanding, the result has been a significant increase in the amount of Choice beef produced in the U.S. In 2009, the U.S. beef industry produced 11% more pounds of Choice beef than it did in 2006. Given the slow moving nature of the cattle industry, this is a dramatic production shift that wholesalers and retailers of beef found themselves suddenly faced with as they scrambled to adjust.

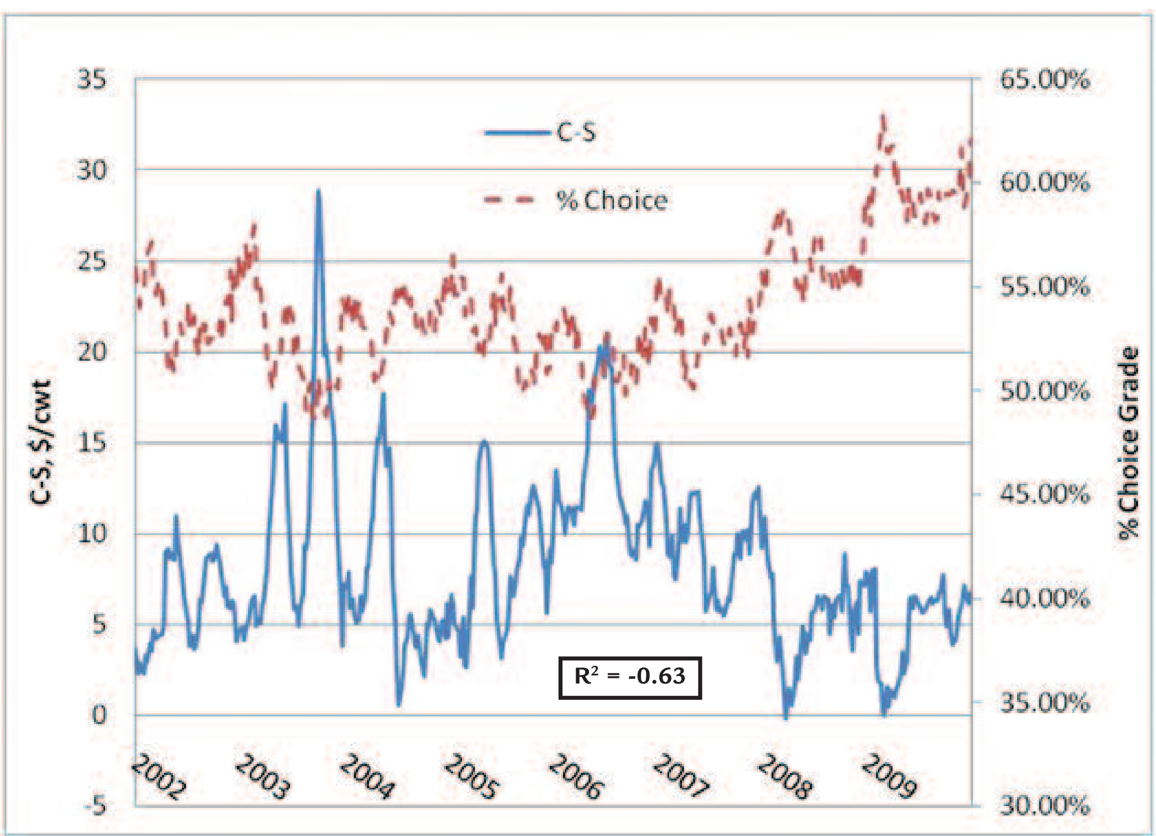
Beyond simple supply and demand, what else could be impacting the C-S?

While their impact on the C-S is not clearly understood at this time, there are many other market factors that could be exerting an influence. The most likely culprit in C-S erosion is a change in the true value of Choice beef. Product sold and reported as USDA Choice is lower quality than it was before branded beef programs. The last National Beef Quality Audit (NBQA) identified that approximately 65% of the beef qualifying for USDA Choice is "Small" marbling level or Low Choice. The remaining 35% of the USDA Choice grade is Average Choice ("Modest" marbling) and High Choice ("Moderate" marbling). The CAB® brand specifies marbling levels of "Modest" and higher.

In 2006, 1.8 million carcasses received the CAB® brand. With tremendous growth in CAB® sales coupled with grading increases, 2.8 million carcasses were accepted into CAB® in 2009 *(Graph 4)*. That number is projected to exceed 3 million for 2010. With the success of CAB®, other branded programs have been developed that also have a Modest marbling specification. As of October 2009, there were a total of 20 USDA-certified branded programs with a minimum marbling specification of Modest or Moderate *(Table 3)*.

GRAPH 3

Historical Relationship Between the Weekly C-S and % Choice Grade



There were also 21 certified programs with a Small marbling specification. In total, the number of programs specifying a Choice or higher product has increased 79% since 2001. This is not to mention numerous "house" programs operated by packers but not certified by USDA. While most of these certified and house programs are sold with a premium to the commodity Choice market and reported in the LM_XB 452 report, they are not included in the Choice cutout. Bottom line, the commodity Choice boxed beef price, from which the C-S is calculated, does not represent all Choice beef. Rather, the commodity Choice price is the very bottom quality of Choice product that is not sold into a branded program. Foodservice and retail beef buyers who understand the diminished quality differences between commodity Choice and Select have likely adjusted their procurement strategies accordingly and are becoming less willing to pay much premium for commodity Choice. Research would suggest that the eating quality differences between Low Choice and Select are minimal *(Graph 5)*.

A second factor that may need consideration in the C-S discussion is how "overrun" Choice product sales are reported. The substituting of Choice product onto a Select order happens at the packer level for two reasons: oversupply of Choice or logistical efficiencies at the point of order fulfillment. As discussed earlier, the late winter of the year typically brings high-grading cattle and seasonally low demand for Choice beef. Because beef is obviously a perishable product, holding inventory for improved demand is not an economically viable option. When Choice production is seasonally high, it is not uncommon for packers to substitute Choice beef onto their Select orders. This typically happens to retail accounts that are on a Select program. Because of the inconsistency of it happening, retailers receiving this product are not able to market the value of the Choice beef they get and therefore unwilling to pay a price beyond that of Select. In the reporting process, Choice product gets reported with a Select price. This reporting of a lower price may in fact represent the value of Choice that week, but it may also be due to short-term supply situations or plant logistics. While this is not a major factor in the C-S discussion, it is one to keep in mind, especially when evaluating the C-S spread during the late winter period.

GRAPH 4

Carcasses Qualifying Annually for the CAB® brand

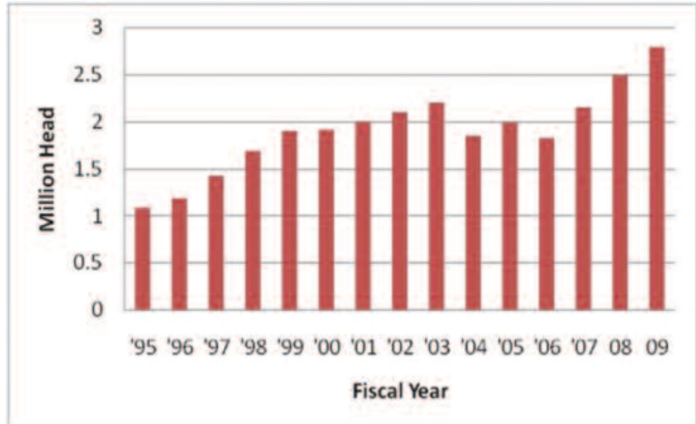


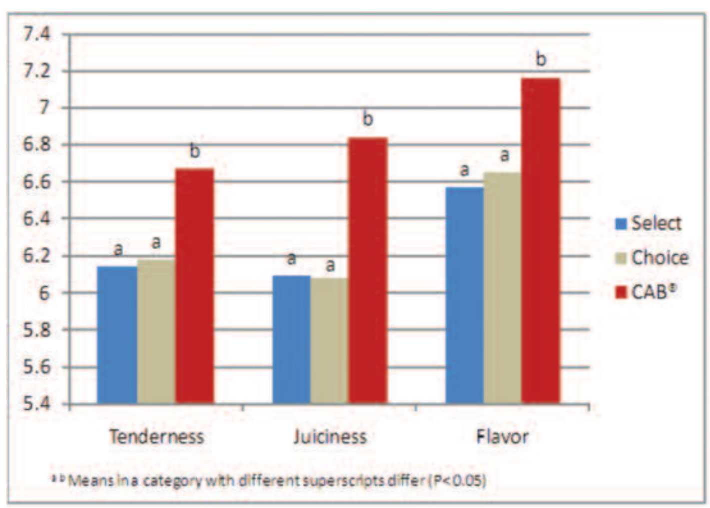
TABLE 3

Number of USDA Certified Branded Beef Programs by Specification

SPECIFICATION	Dec '01	Oct '09	Change
Slightly Abundant 00 or higher	4	11	+175%
Modest 00 or higher	16	20	+25%
Small 50 or higher	NA	2	NA
Small 00 or higher	9	21	+133%
Total Choice or Prime	29	52	+79%

GRAPH 5

Palatability Differences Between CAB®, Choice and Select Beef *(Claborn et al, 2006)*



Is demand for high-quality (Choice and higher) beef increasing or decreasing?

Over the past two years, demand for high-quality beef, defined as "commodity Choice or higher," has struggled to grow. This should not be surprising considering the foodservice sector has been severely hurt by the downturn in the economy, reducing demand for Choice middle meats. With decreased business travel and reduced household disposable income, casual and fine dining restaurant sales have been off by 10% to 25%. On top of this, access has been limited to the significant Choice beef buyers in the Pacific Rim.

And, perhaps unfortunate from a timing standpoint in this period of weakened overall beef demand, the cattle industry made drastic improvements in the quality grade. In fact, more Choice and higher beef was produced than the marketplace was able to assimilate and value effectively. As a result, the difference between the price of Choice and Select beef was reduced and that lower C-S was manifest in the dollar amounts on cattle producers' checks.

So the logical question becomes, is this a temporary situation or a long-term trend? In evaluating the data of the past 10 years, one can strongly argue that this is a temporary situation. Domestic and global beef consumers prefer beef as their protein of choice for one reason: taste. And beef's taste is inherently linked to marbling (quality grade). Meat scientists have proven this for decades with countless studies showing the direct correlation between marbling and consumer satisfaction. With that in mind, there is no reason to believe demand for highly marbled beef will do anything but increase over time. The record sales of the CAB® brand are further proof that, even in difficult economic times, consumers prefer high-quality beef. When the C-S was continuing to decline in 2009, the CAB®-Choice premium increased *(Table 4)*.

Are there market signals for quality beef beyond the C-S?

While much industry lip service has been given to the shift to more value-based marketing systems, no doubt the transition has been a slow one. If a cattle producer just looks over the past few years and doesn't consider a 20- or 30-year perspective, a simple read of the grid premiums might suggest a move back to a pure commodity, non-value-based approach. Beyond the compression of the C-S, the average premiums paid for Prime and Premium Choice, as well as the discounts for Select and Standard, have become smaller *(Graph 6)*.

That said, there has never been a discount for quality. Even the few weeks where the beef cutout showed a negative C-S, a Choice carcass has never been priced less than a Select one (assuming other factors of yield and quality equal). CAB® has documented that licensed packers have paid out more than $300 million in CAB® grid premiums since 1998 on qualifying carcasses, on top of the C-S and other premiums.

As reported by the USDA in 2009, a Premium Choice (CAB® level of marbling) carcass was worth about $8/cwt more than Select, and a Prime bonus was more than $16/cwt compared to Select. On an 800-lb. carcass, that correlates to about $65 or $130 for a Premium Choice or Prime, respectively. In the cattle feeding world where margins are razor thin, these kinds of premiums are quite significant. And while not represented in the USDA reports because of confidentiality reasons, many grids exist between producers and packers with upwards of $5/cwt CAB® premiums and minimum C-S levels or "floors." These arrangements coupled with Prime premiums send even stronger signals for higher grading product.

TABLE 4

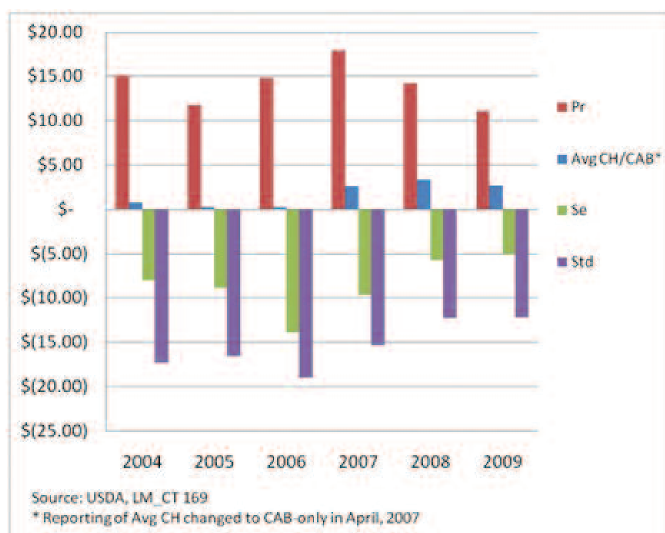
Year-to-Year Changes in the C-S and CAB®-Choice Spreads

SPREAD	2007 to 2008	2008 to 2009
Urner Barry C-S	-40.0%	-9.4%
Urner Barry CAB®-Choice	-16.3%	+4.6%

Source: Urner Barry Yellow Sheet

GRAPH 6

Cattle Quality Grade Grid Premiums and Discounts (Base of Choice)



What does the future hold for the C-S?

While predicting the future is not an easy endeavor, one can step back and look at several macro trends to gain insight into where the C-S will likely head next. In all, there are numerous factors that bode well for Choice-and-higher beef demand and support a higher C-S going forward.

- ❖ Consumers prefer the flavor, juiciness and tenderness that come with a highly marbled beef product. The growth in beef demand through the 2000s came from improving consistency and convenience of the product while offering consumers access to more high-quality and branded programs. The continued growth in premium programs like CAB® through these last, difficult economic years suggests that high-quality beef has significant consumer demand.
- ❖ With a rebound of the U.S. economy, it is logical to expect mid- and upper-tier restaurant business to return to pre-'07 levels. This supports Choice middle-meat prices, which are strongly, positively correlated to the C-S.
- ❖ Many retail stores went away from offering a Choice product through the '80s and '90s because Choice was simply not available. As retailers continually look to differentiate their businesses from the supercenters, shifting to a Choice or higher program is a logical and proven step to take.
- ❖ Grain-fed, high-quality beef is the competitive advantage of the U.S. beef industry in the global beef marketplace. Growing international market access and stability is supportive to Choice-and-higher beef demand.
- ❖ With decreasing cattle numbers in the U.S., all beef prices should be supported; the markets and spreads of the mid 2000s could well return.

Conclusion and industry considerations

The C-S has trended lower for the past few years. The unfortunate timing of the combination of a U.S. recession, poor export market access, and a significant increase in the Choice grading percentage can all be blamed for this shrinking spread. At this same time, the quality of the product in the USDA Choice grade has been reduced because the better grading beef has been sold through the higher priced, branded programs like CAB® and not left in a commodity Choice box. With all of this combined, a lower C-S should not come as a surprise.

But looking forward with some optimism, the economy will improve, our market access will stabilize, and the marketplace will adjust to consuming the increased Choice production levels. The trend for a growing C-S and premiums for upper Choice and Prime that existed before 2007 will likely return. And at the same time, the industry needs to consider adjusting its marketing system to more readily incorporate Premium-Choice/Choice spreads and fully accept that the C-S of today is really only the Low-Choice/Select spread.

A low C-S is certainly not signaling that cattle producers and the beef industry should pay less attention to beef quality. In fact, the long-term signals are saying quite the opposite. Some within the industry have suggested a direction away from the focus on improved marbling and towards only lean, red-meat yield. Students of the beef industry know that route from history, the path taken in the 1970s and '80s. The result was a 30-year decline in beef demand because consumers, not presented with the quality level product they preferred, chose other protein options instead.

So while the C-S is not sending a loud signal, producers need to read it accurately and with full understanding of its limitations. That understanding says to maintain the focus on improving beef quality while also increasing red-meat yield. The genetics and management practices of today allow for simultaneous selection for both quality and cutability. There is no reason to sacrifice either. With a healthier beef marketplace in the foreseeable future, the quality signals will return to more obvious readings, and those cattle producers who maintained their focus on quality will reap the benefits.