Staying ahead of the curve

Watching yield curves of various types can reveal a lot about where markets are headed

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Price differences into the future, comparative risk between assets as well as supply-and-demand timing factors are all common in financial markets.

From government bond yield curves, to spreads between corporate bonds, to dividend rate anomalies amongst preferred shares, arbitrage and quasi-arbitrage pricing opportunities often exist.

Consider the term to maturity of interest rates.

Typically, short-term interest rates are lower than long-term rates. For instance, the 30-day Government of Canada T-bill rate is 0.50 per cent while the 30-year Canada bond yield is two per cent. But sometimes short-term interest rates can be higher than long-term interest rates like in Russia today where one-month government bond rates are 9.25 per cent but 10-year yields are only 7.75 per cent. Furthermore, interest rates can even be negative as we've seen in Europe and Japan. Imagine buying a one-year Swiss government bond for 101 francs but getting back only 100 francs in a year. That's a negative interest rate.

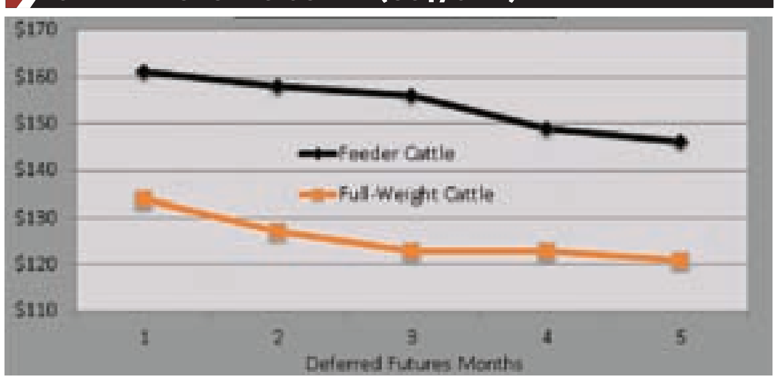
These same principles and analysis also apply to farm commodities.

Let's take one, or maybe a few steps back first, before we move on. When it comes to understanding futures, sometimes it helps to look to the past. In 1978, the Chicago Board of Trade published *Readings in Futures Markets: Select Writings of Holbrook Working*, based on work and research Holbrook Working performed in the 1940s. A Stanford University professor of statistics, prices and agricultural economics, he developed the theory of the price of storage to explain the relationship between cash and futures prices. It was fundamental to understanding the futures market's role in commodity marketing and in the determination of prices.

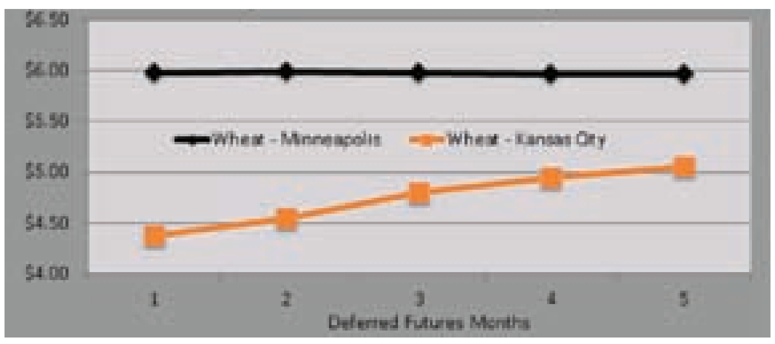
One of his more important conclusions was that an inverse carrying charge is a true negative price of storage. All else being equal and assuming prices don't change, you get more money from selling your grain today than holding on to it to sell next month or next quarter. According to Holbrook Working, inverse carrying charges are a reliable indication of a current shortage, but necessarily a reliable forecast of price decline and do not in general measure expected consequences on future prices.

The key take-away from his work is that forward curves are not a forecast of future prices but rather reflect existing supply and demand for different delivery periods as well as storage costs and carrying opportunities.

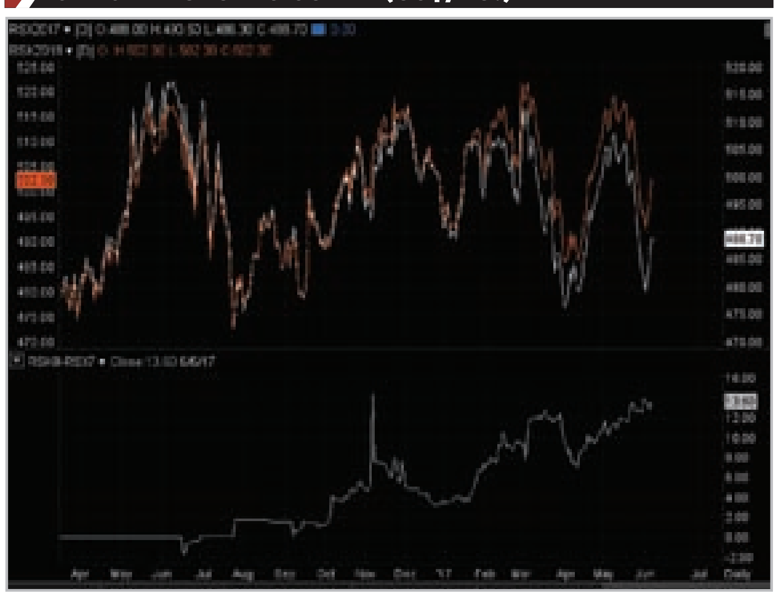
CATTLE FUTURES CURVE (US$/CWT)



WHEAT FUTURES CURVE (US$/BU.)



CANOLA FUTURES CURVE (US$/BU.)



These insights still hold true today.

So just what are the implications for selling this year's grain or livestock production? Do you store or sell? For what delivery period? We've all heard the saying, "Sell grain when the market wants it; store grain when it doesn't." With this in mind, the valuable part is now using this information and analysis to create the most effective and efficient marketing strategies. It often comes down to the most appropriate marketing tool: delivery contracts, futures contracts, basis-only contracts, target price contracts or option-based strategies.

Let's look at some current futures price curves to understand what all this means.

Going out about one year forward to around May 2018 using the five nearest futures contract prices, we can see the shape of various commodity futures curves as of the beginning of June.

First, let's look at cattle. The curves for both feeder and live cattle futures are inverted with the nearby futures months trading above the deferred months (see chart). This indicates strong demand in the cash market and is supportive of prices, at least for the short term. Put option-based hedging strategies, that establish a floor without locking in prices to still allow for more upside, are well suited in this type of environment.

Next, we have wheat. Looking at Minneapolis hard red spring wheat futures curve compared to Kansas City hard red winter wheat, we see different stories (see chart). The Minneapolis curve is flat going out as far as the eye can see showing some very strong demand.

Meanwhile, the Kansas curve is very steep where you can earn an extra 10-15 per cent between the nearby delivery months and the one-year delivery. You get paid well to wait but only if you actually hedge those higher deferred Kansas City wheat prices.

The current shape of the Kansas wheat futures curve also allows for some very effective option strategies to take advantage of these current conditions. Recently, there have been some strategies that essentially allow you to get your put options for "free."

Finally, notice the choppy sideways trading for November 2017 and May 2018 canola futures on the top half of the canola chart.

Meanwhile, the November-May spread on the bottom panel has risen from $4/ton at the beginning of the year to almost $14/ton today (see chart).

This additional $14/ton adds up to an extra return of about three per cent, or around six per cent annually if you store your canola for an extra six months instead of selling at harvest. Once again though, you need to hedge with futures, options or a forward delivery contract to actually earn that storage opportunity and capture that carrying benefit. Of course, you have to weigh this incremental gain against the additional resources and other farm considerations to handle and store it in the bin.

Bottom line, the shape of a futures curve will affect your marketing results. A hedging strategy structured for a steep carry market like Kansas wheat is not necessarily the best approach for a flat curve like soybeans or an inverted market like cattle. Different conditions require different decisions.

And then of course there's your basis. That's just the difference between your local cash spot market price and the futures price, but that's another topic for another day.

David Derwin is a portfolio manager and commodity/investment adviser with PI Financial Corp. PI Financial Corp. is a member of the Canadian Investor Protection Fund. The risk of loss in trading commodity interests can be substantial. You should therefore carefully consider whether such trading is suitable for you in light of your financial condition. This is intended for distribution in those jurisdictions where PI Financial Corp. is registered as an adviser or a dealer in securities and/or futures and options.

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