DTN DEEP DIVE

Understanding DTN Six Factors®

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Chapter 1

A Look Under the Hood of DTN Six Factors Market Strategies

Enforced Discipline

There are a lot of opinions and theories about how to look at commodities markets. DTN created its Six Factors Market Strategies to simplify issues for busy farmers, and to cut through the noise to get at the most important details driving market direction.

The Six Factors approach brings together elements of value, fundamentals, seasonal influences and technical analysis, providing a coherent, understandable view of the markets.

The factors influencing markets are grouped into six categories: Trend, Volatility, Price Probability, Seasonals, Commercials and NonCommercials.

DTN Six Factors focuses on two USDA numbers. Grain stocks, which are reported only quarterly, are some of USDA's best work and they offer healthy checks and balances on all the other estimates.

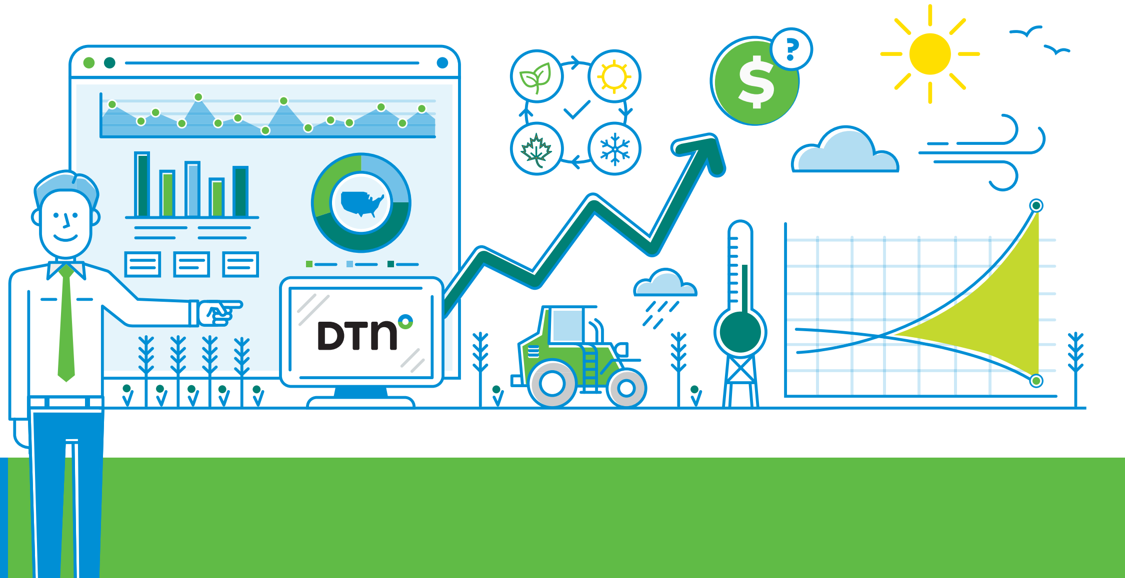
The second key USDA number are ending stocks-to-use ratios. Those ratios are the ultimate metric analysts use to compare the surplus of the current season to past seasons and the ratios offer a clue as to where prices should trade.

This is where DTN analysts dig deeper, using the Six Factors.

Reasons to use our proprietary DTN Six Factors® approach:

- Time-savings
- Understandable
- Strategic
- Technical + Fundamental

1. Trends of the Future Markets
2. Positions and Activities of Noncommercial Traders or Speculators
3. Trends of Future Spreads
4. Seasonal Tendencies of the Market
5. Price Probability
6. Volatility



Price Probability, or Value

The commodity market consists of two main players: the producers and the end users.

Because both players are needed to function over time, prices in a healthy, balanced market rotate up and down, distributing advantages back and forth. The Price Probability of these swings within periods of time is a simple representation of commodity's value.

A commodity's production cost is another way to measure value. Early in a calendar year, before we know anything about the growing season, expectations are based on the historical relationship of prices to production costs.

Commercials

The second DTN factor that relates to a commodity's value comes from commercial net holdings in CFTC's weekly Commitment of Traders reports. Commercials are in the business of handling grain. Firms like Cargill, ADM, Bunge, ethanol plants, etc. have to report their large futures positions weekly and we can generally see if this group is net long or net short.

Commercial firms generally know more about demand than anybody. It pays to notice their positions. When commercials go net long on the futures board, it is often a sign of active demand from end users.

Seasonals

One consistent market phenomenon for cash corn and soybean prices has earned its place on the DTN factors list: Seasonal trends.

Over the past 50 years, corn and soybeans typically trade near their lowest prices in early October and near their highest prices in early June for corn and late June for soybeans. There are exceptions, but statistically speaking, this pattern is extremely helpful in the most confusing of years. The rise of South American production, because of Southern Hemisphere crop seasons, may someday disrupt this, but there is no sign of that yet.

DTN National Soybean Index 2005-2011

Volatility and Trend

Volatility and trend are two of the DTN factors that fall under the heading of technical analysis. These two factors also work well together with seasonality. In a typical winter, for example, grain prices tend to be quiet, showing low volatility and are not apt to take off in a directional trend.

Many other approaches fall under the heading of technical analysis and in general, using only methods that are simple to understand and practical is best. A good technical indicator highlights what prices are actually doing. It is not a crystal ball.

There is no doubt trend is a powerful market factor, but it needs to be handled carefully.

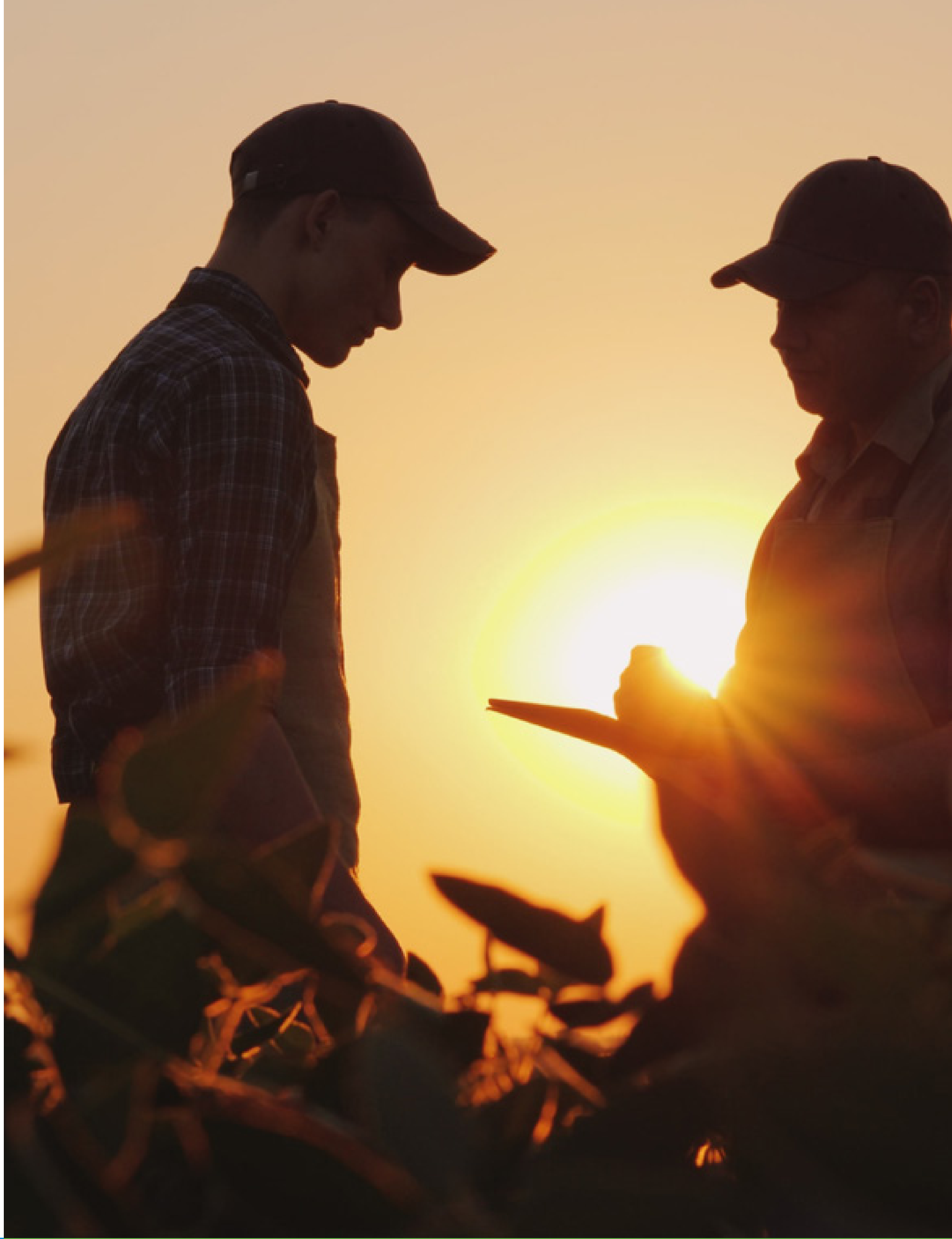
Noncommercials

Noncommercial positions are the final DTN factor. They play a big part in helping understand when a trend can be trusted and when it cannot.

To understand the role of noncommercials, or speculators, in the market, think of them as a bad poker player with a lot of chips.

Most of the time, like a newbie poker player, noncommercials are simply following trends without a strong understanding as to why. Because they have a lot of money, they can drive prices. Their futures positions drove corn and soybean prices higher in the spring of 2018 and corn prices lower in the spring of 2019.

Without strong fundamental backing however, those trends didn't last and noncommercials quickly found themselves on the losing end of rising margin calls. They liquidated positions, folding their once-confident poker hand. Noncommercial failure is a frequent event in markets and, when considered along with the other five factors, gives DTN a better understanding of what to expect from prices.



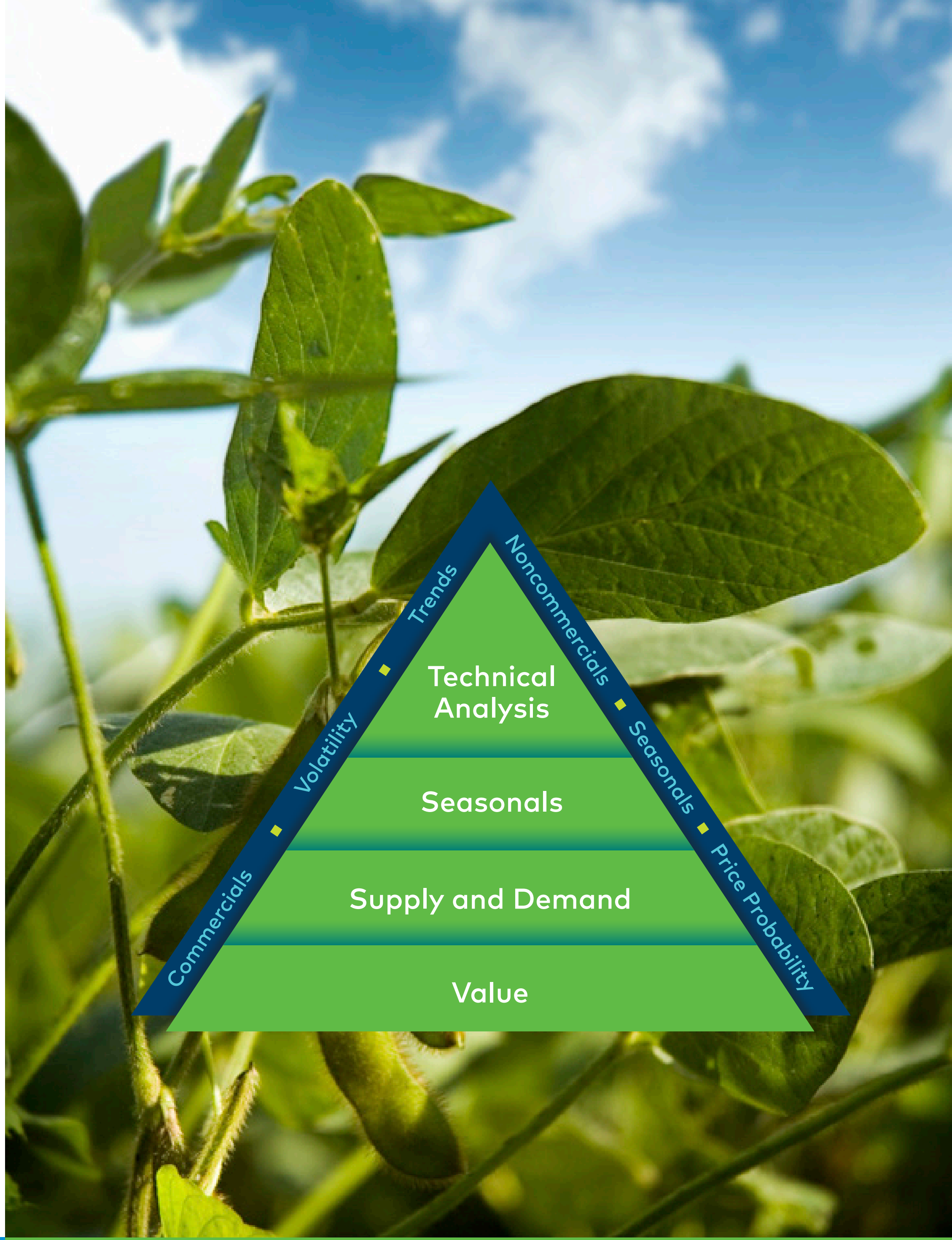
Market Coherency

As we evaluate the six factors over time, sometimes they give a clear picture of what lies ahead and sometimes the factors are mixed, with no clear direction.

Incoherency can represent honest indecision about what is happening in the world or it can simply be a temporary emotional sidetrack. Markets are people and people can get distracted. Noncommercial positions are often the first place to check for clues of distraction.

A coherent market on the other hand, where fundamental and other factors agree, can be a powerful driver of prices and of trends. We saw how quickly soybean prices dropped during summer 2018 after U.S. planting went well and it became clear that a trade war with China was going to be a serious threat to U.S. soybean demand.

It's important to keep in mind that markets are people and it doesn't always take much to scare one side.



Chapter 2

Why Believe in the Six Factors?

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A lot of market theories, strategies and approaches exist and nearly all of them worked well in the short term, but almost none succeeded consistently over time.

Market trading strategies often look great on paper until they're put to the test. Then that's when the market changes.

Frustrated with economic theories, DTN designed the Six Factor Market Strategies. Those six factors remain the same today and are presented here as: Price Probability, Commercials, Seasonals, Volatility, Trend and Noncommercials.

The strength of the six factors taken together is that they look at the market in a disciplined way from several different, yet important, perspectives.

Those perspectives help keep in check the many biases that any analyst, or group of analysts, can subconsciously bring to their market view.

Chapter 3

Meet the DTN Analyst Team

Meet the DTN Analyst Team

Lead Analyst
Todd Hultman

Senior Market Analyst
Dana Mantini

Canadian Grain Analyst
Cliff Jamieson

Basis Analyst
Mary Kennedy

Livestock Analyst
ShayLe Stewart

Assistant Livestock Analyst
Linda Nellson

Analyst
Rick Kment

Chapter 4

Are Markets Rational?

Are Markets Rational?

For decades, economic theory was built on the premise that people act in their rational self-interest. Then two psychologists came together to challenge those assumptions.

Basic economic theory says producers produce more of a given commodity when prices are higher, less when prices are lower. The demand curve assumes consumers buy more of a commodity when prices are cheaper and buy less when prices are higher. For more than one hundred years, that seemed to make sense and went largely unchallenged.

In the early 1970s, two Israeli research psychologists, Daniel Kahneman and Amos Tversky, wrote an article for the magazine *Science*, "Judgments Under Uncertainty: Heuristics and Biases." Their work drastically changed economic theory.

The core of their work was the recognition that decision makers — whether farmers, consumers, or politicians — were prone to biases. To manage risk and sell grain at higher prices, understanding these common biases not only helps us avoid the traps, but can help us spot opportunities in the market. There are nine common biases we are all susceptible to.

Nine common biases...

1 Confirmation bias

The tendency to hear the news we want to hear and discard information that disagrees with our position or belief. An example in 2019 would be producers who believed corn plantings would come in less than 80 million acres.

2 Availability Heuristic

We tend to over-weight the importance of recent news. A famous research paper by Nobel Prize winning student, Richard Thaler, showed stock market prices often overreact to new information. Grain prices are likely no different.

3 Hindsight Bias

After going through a surprise like the financial meltdown of 2008, we tend to minimize the surprise aspect over time and tell ourselves we should have seen it coming, or worse, believe we did see it coming.

Nine common biases...

4 Anchoring

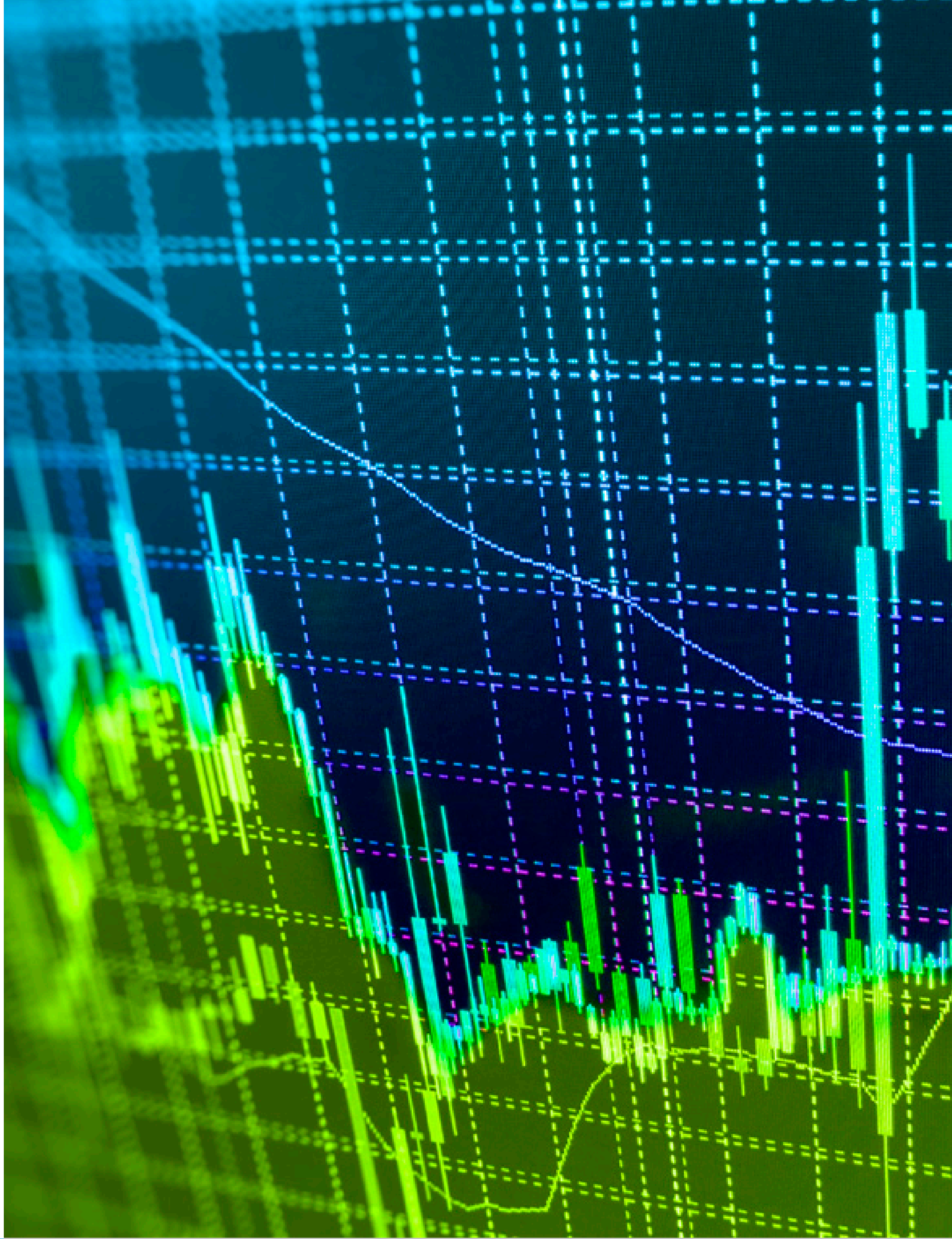
We tend to take the first estimate we hear and work from that point. Much like people often take USDA's March planting intentions and then add or subtract acres based on their views of weather.

5 Fear of Missing Out

December 2019 corn hit $4.60 a bushel in June, but many producers passed on locking in those prices, not wanting to experience the pain of missing out on even higher prices.

6 Herd Behavior

We are all susceptible to herd behavior, going along with what everyone else is doing, and you see this frequently among noncommercial positions.



Nine common biases...

7

Habit

We all have them, but all habits don't necessarily serve us.

8

Optimism Bias

We overestimate the likelihood of positive future events. Or put another way, we tend to blind ourselves to the risk of negative events.

9

Endowment Effect

People who own something (like the corn in your fields or bins) tend to overestimate its value.

Being Human

There are many more human biases, but these nine form a good sample of why making good marketing decisions is difficult. We can never shake these biases completely, but being aware of them is an effective first step. These behaviors are another reason for the design of the DTN Six Factors Market Strategy. We're forced to look at the market objectively, from multiple perspectives: What is the trend and how is it influencing current actions? How are noncommercials reacting to events? How volatile is the market now compared to similar situations in the past?

Making solid marketing decisions for your farm is no easy task. There are many hurdles to overcome. In addition to their other benefits, DTN Six Factors Market Strategies are designed to help overcome the obstacles of biases, of being human.

Visit our site to request an obligation-free demo of DTN Six Factors, part of MyDTN

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