

FINANCIAL & RISK MANAGEMENT STRATEGIES FOR 2023

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Center for Commercial Agriculture

Ag Economy Barometer Survey Details

Monthly phone survey of 400 U.S. agricultural producers, focused on major crop & livestock enterprises

Respondents estimated value of production is equal to or greater than U.S. \$500,000

Not same producers surveyed each month, but characteristics of survey sample are held constant from month-to-month

Respondents are stratified by enterprise, based on USDA's *Census of Agriculture*

Representative of U.S. producers that provide vast majority of U.S. agricultural production

Survey accuracy is +/- 5% @ 95% confidence level for population we sample

Survey Respondents By Enterprise Every Month

Corn/Soybeans 53%

Beef 19%

Wheat 14%

Hogs 6%

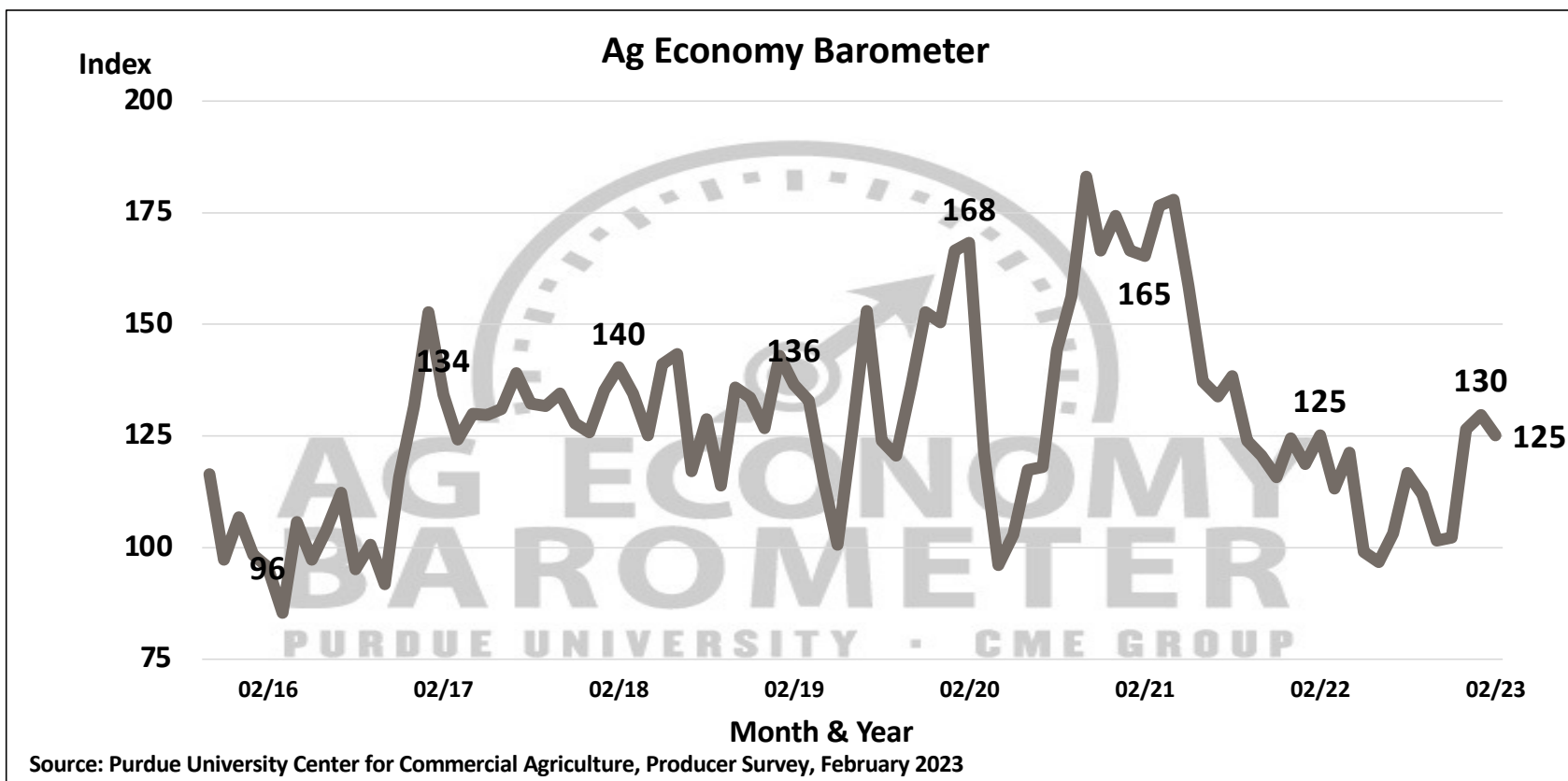
Dairy 5%

Cotton 3%

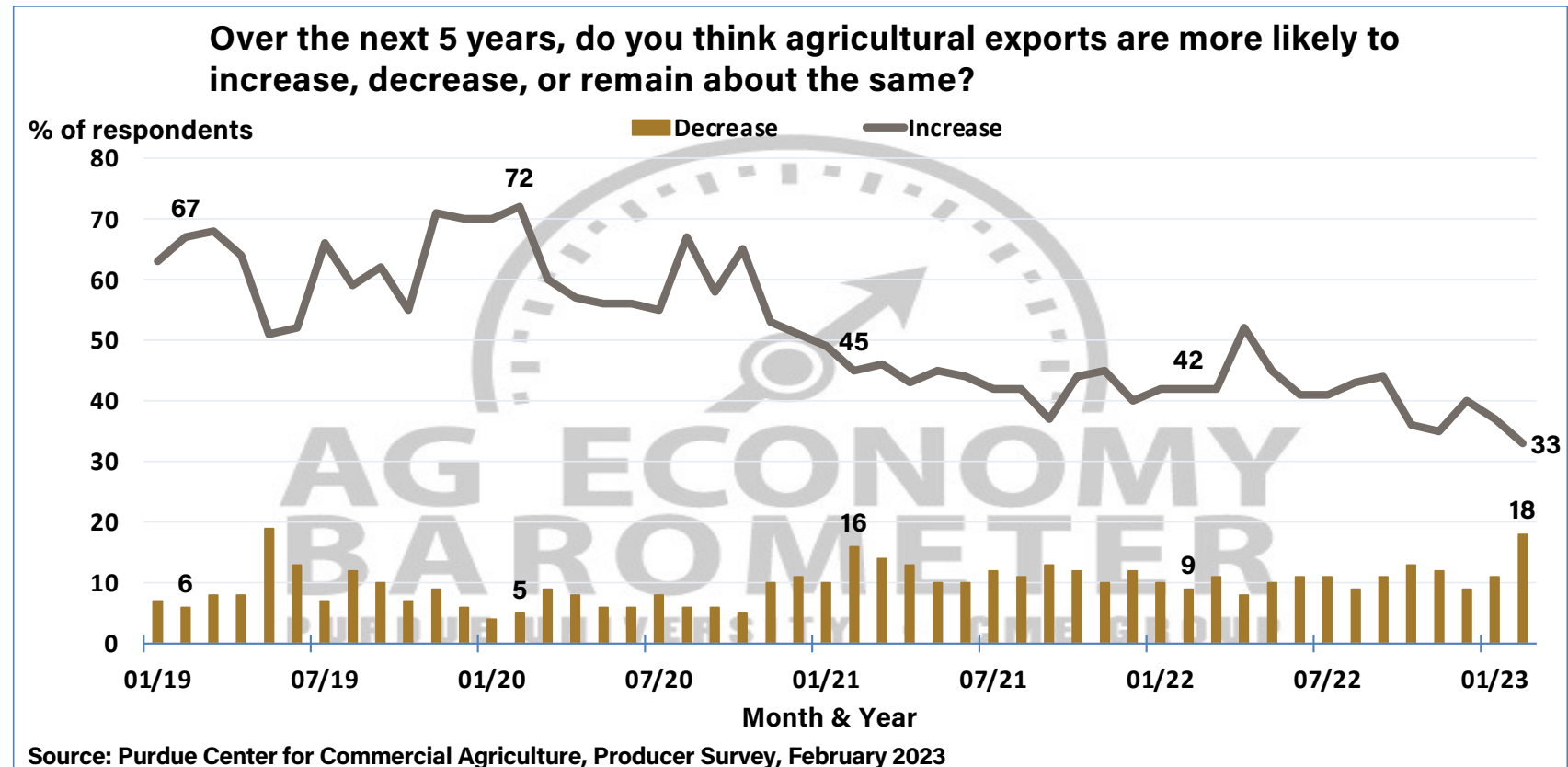
100%

%'s are minimum targets since some farms are engaged in more than 1 enterprise

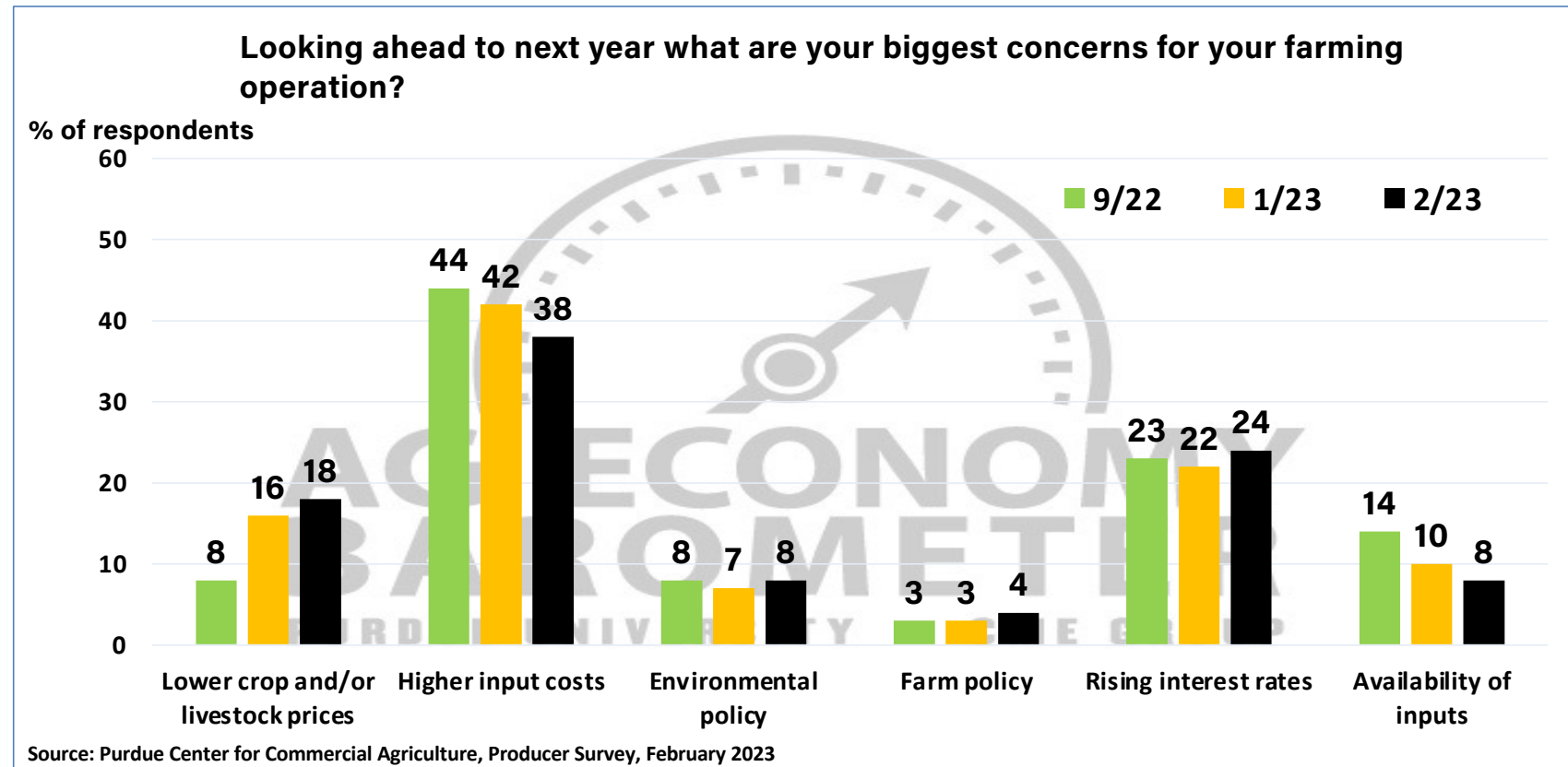
Although It Rebounded Recently, Farmer Sentiment Remains Much Weaker Than 2 Years Ago, Despite Record High Farm Income



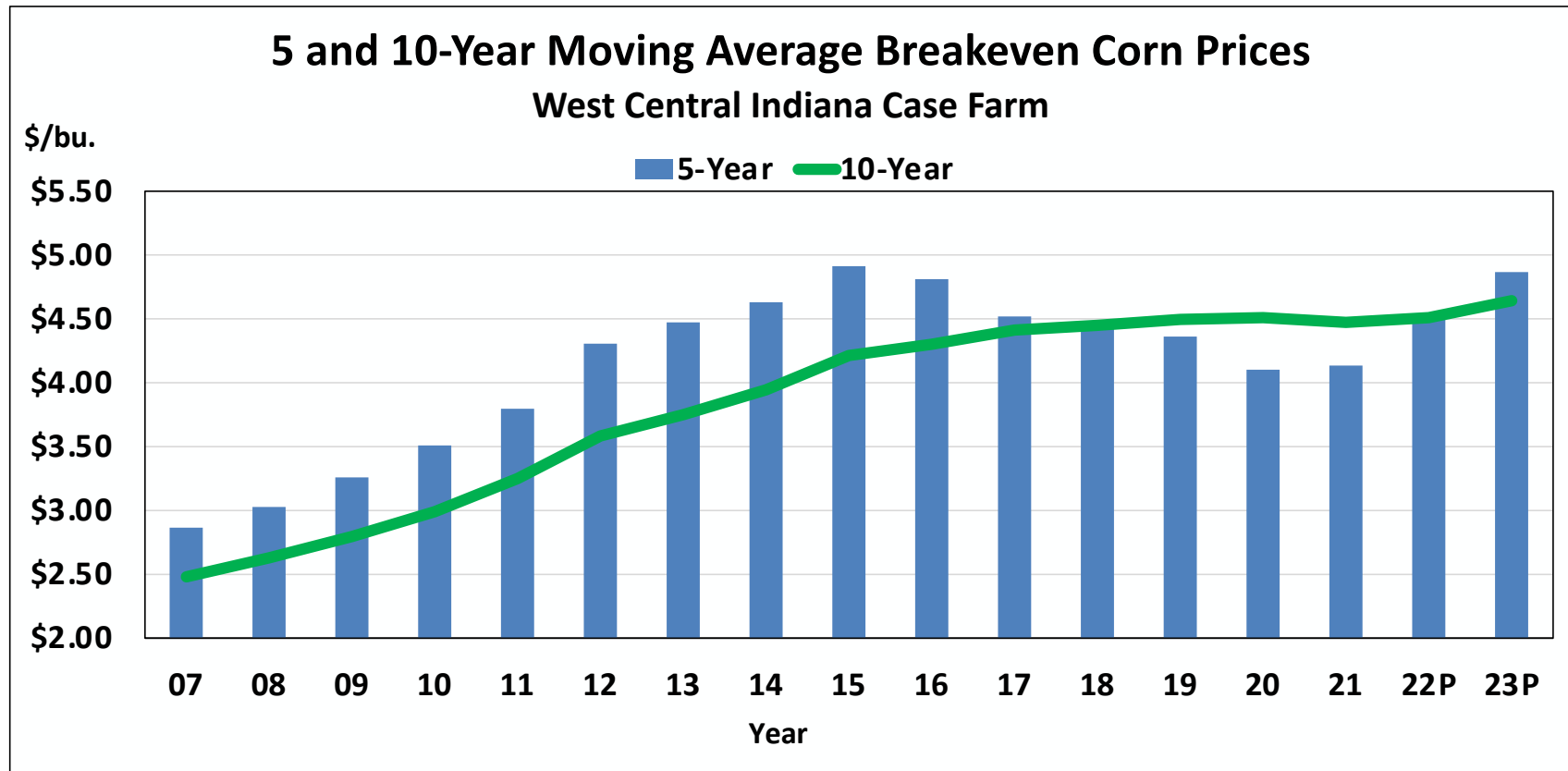
Producers Are Losing Confidence in Ag Exports as a Growth Engine for Ag



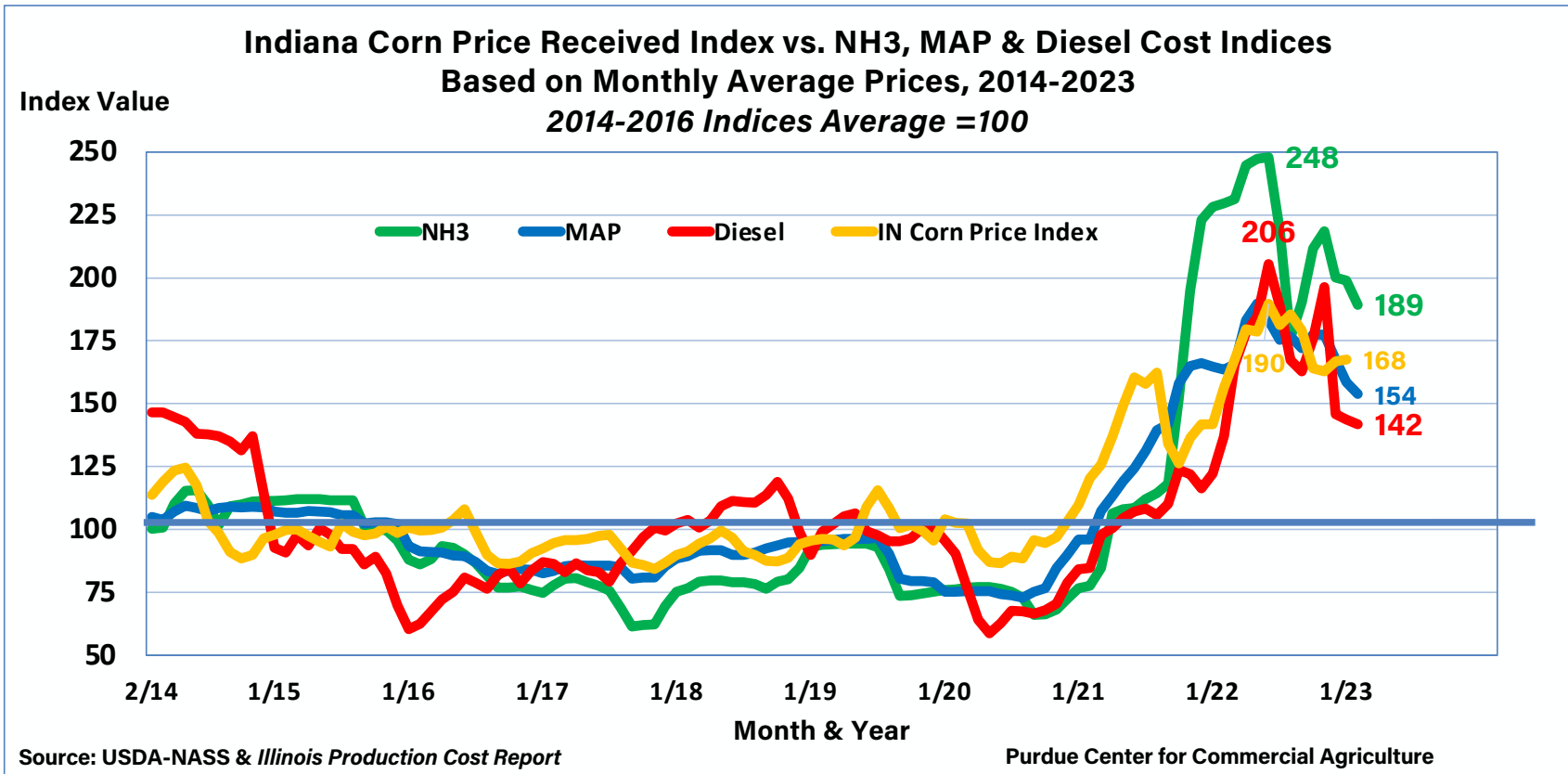
Input Costs Still #1 Concern, More Are Worried About Rising Interest Rates & Declining Output Prices



Breakeven Prices for Corn Are Near Their Peak...Will They Adjust Downward?

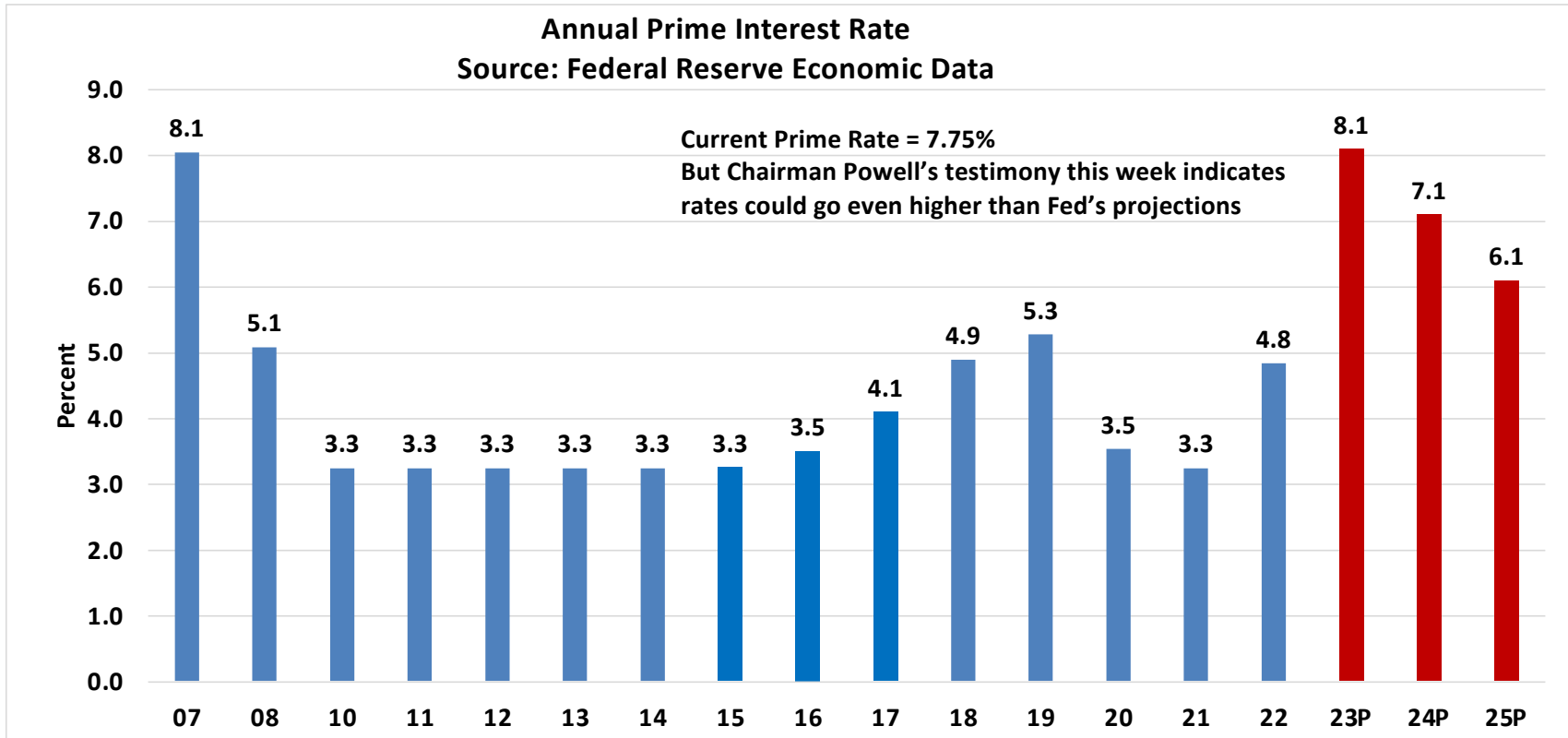


Although Input Prices Have Started to Decline, Farmers Are Concerned About a Possible Cost-Price Squeeze



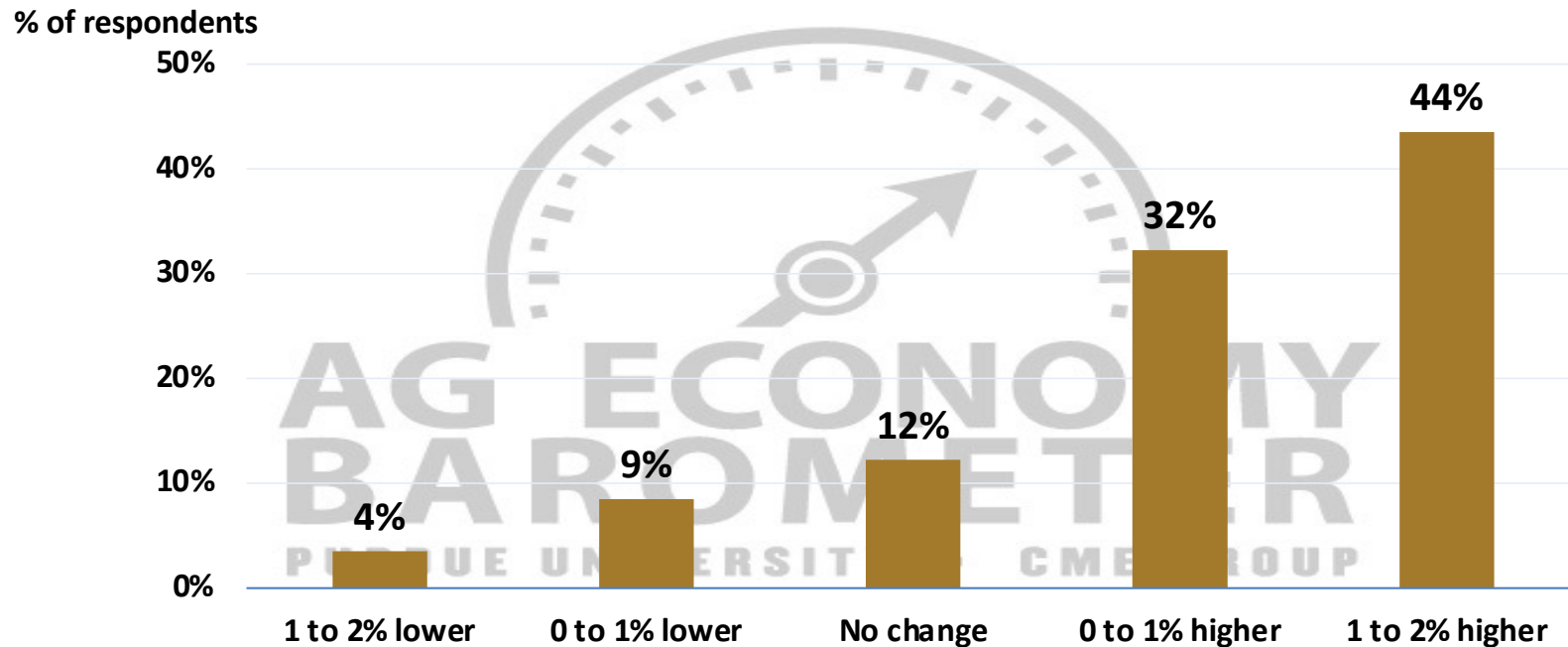
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Fed's Projections Suggest Prime Rate Climbing Above 8% & Then Weakening



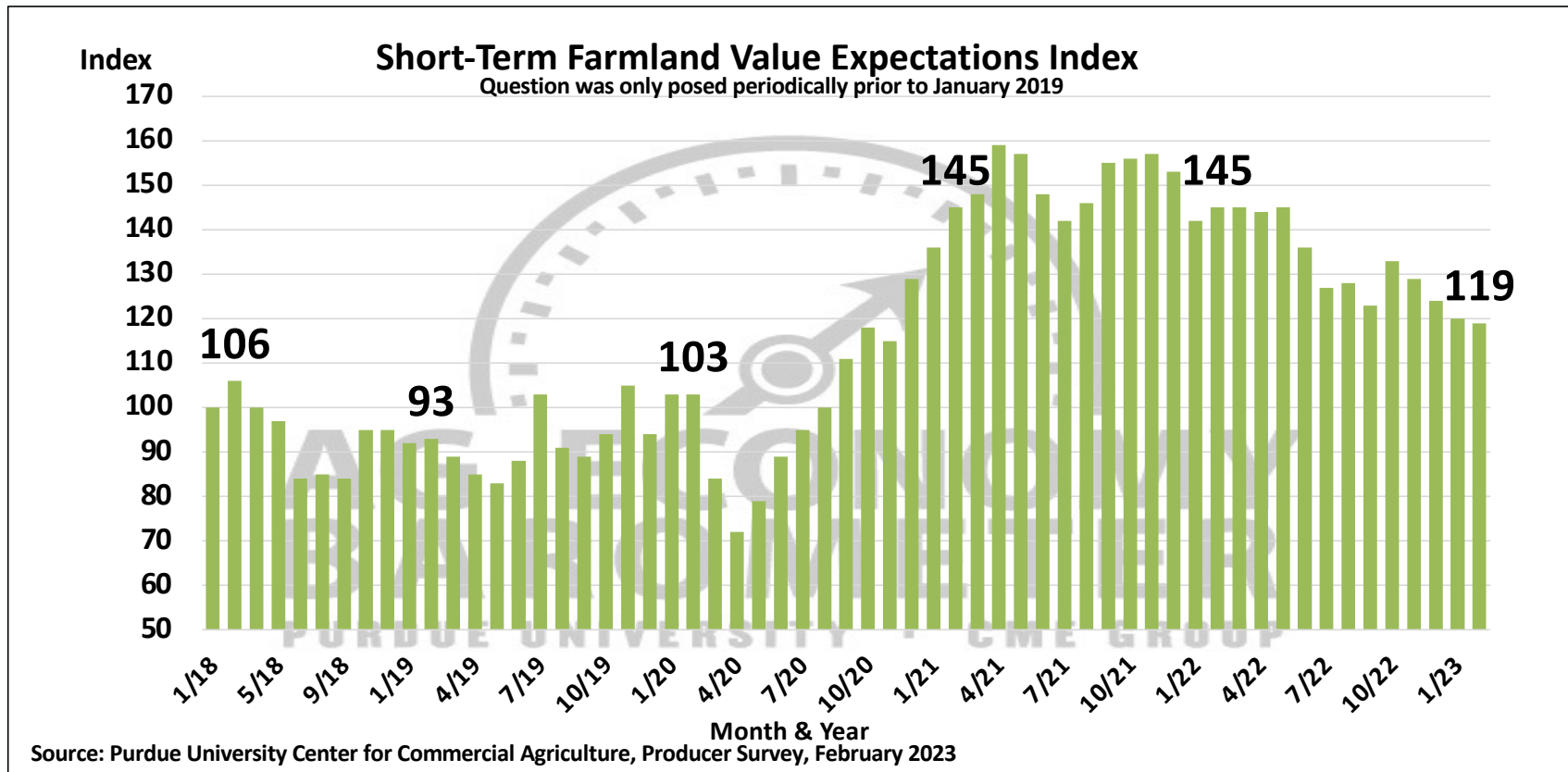
44% of Farmers Expect Prime Rate to Reach 8.75-9.75% By Early 2024

The U.S. prime interest rate is currently 7.75%...What do you expect the U.S. prime interest rate to be one year from now?

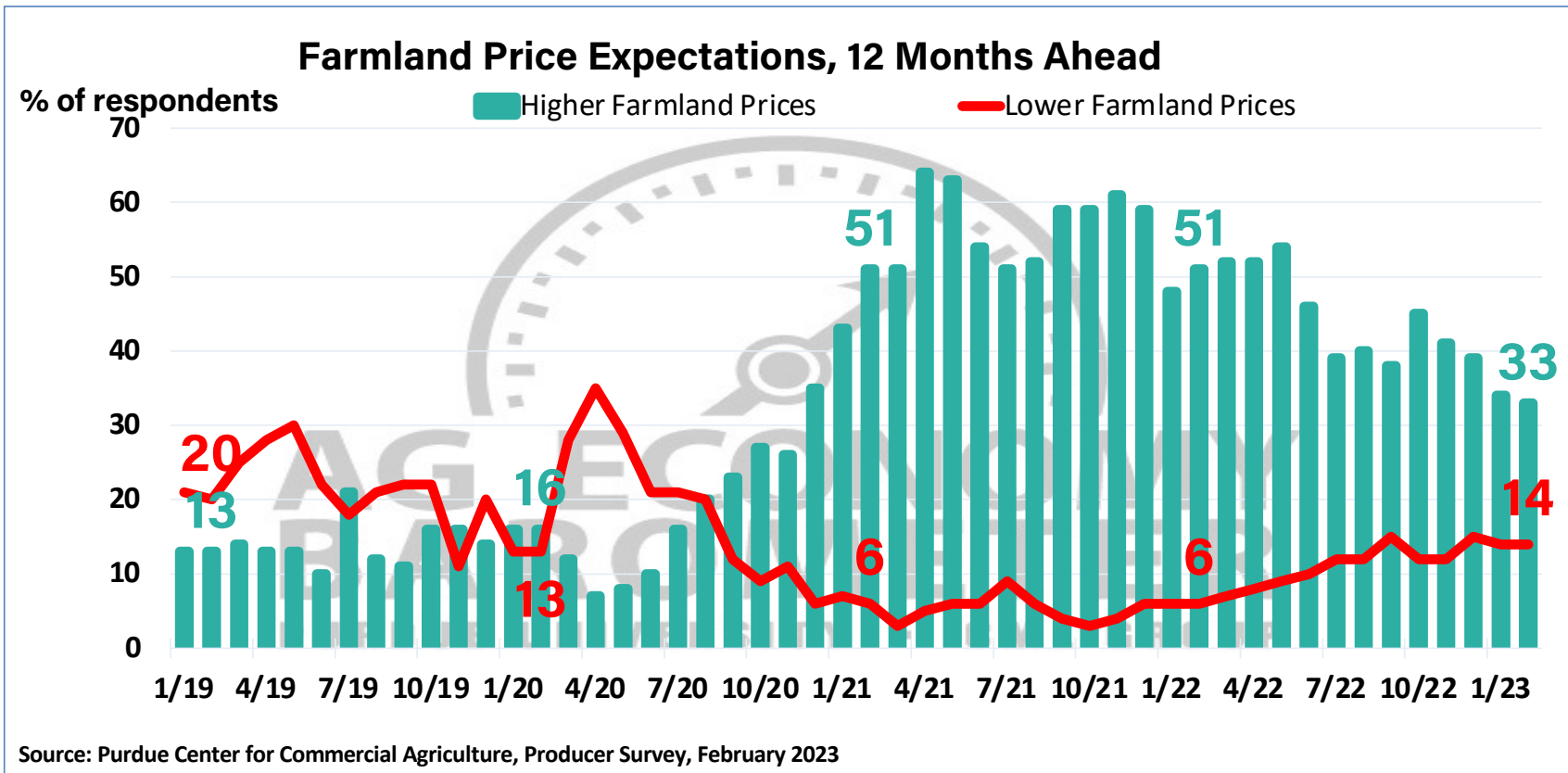


Source: Purdue Center for Commercial Agriculture, Producer Survey, February 2023

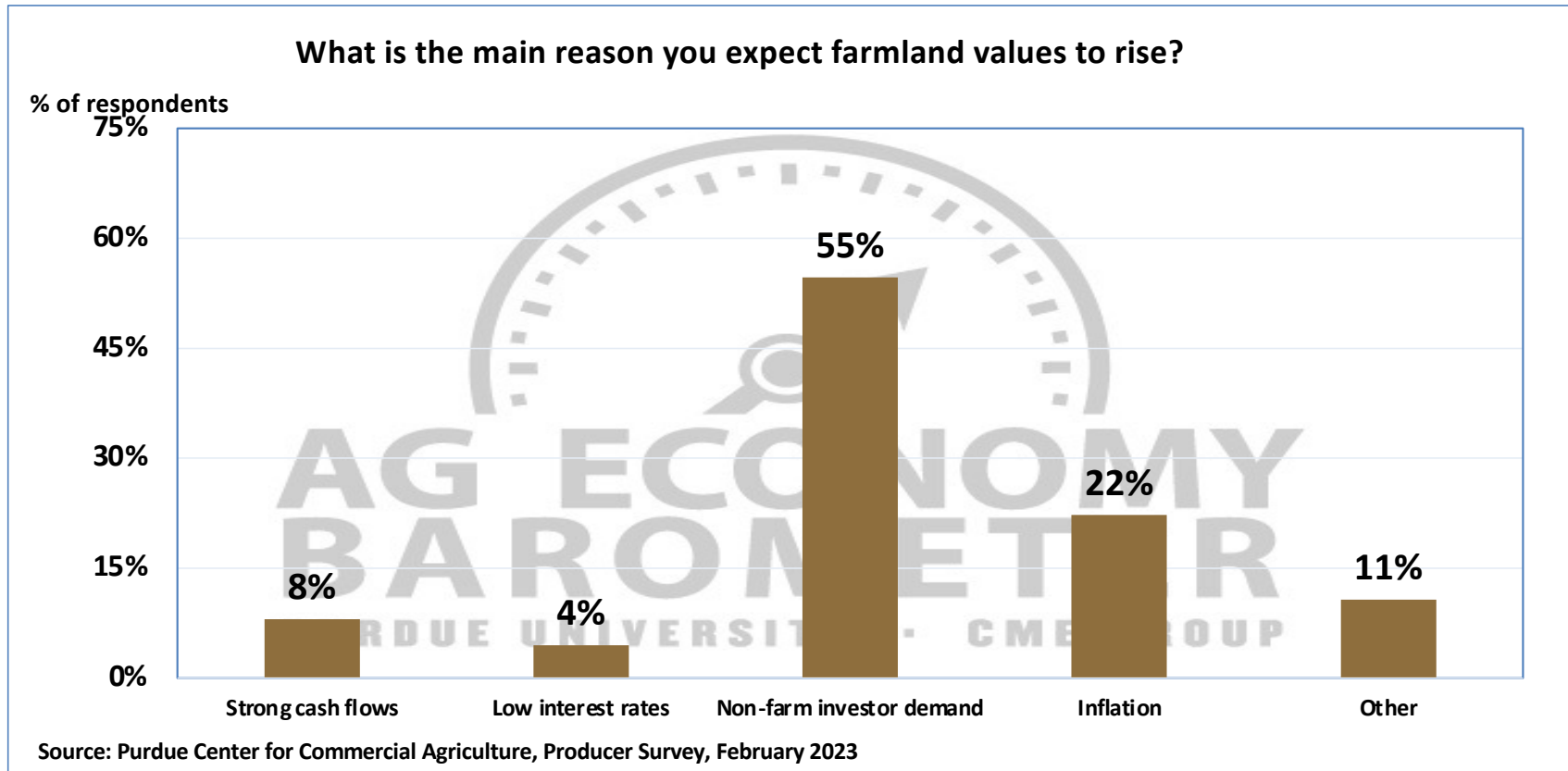
Farmland Sentiment Is Still Positive, But Noticeably Weaker than a Year Ago



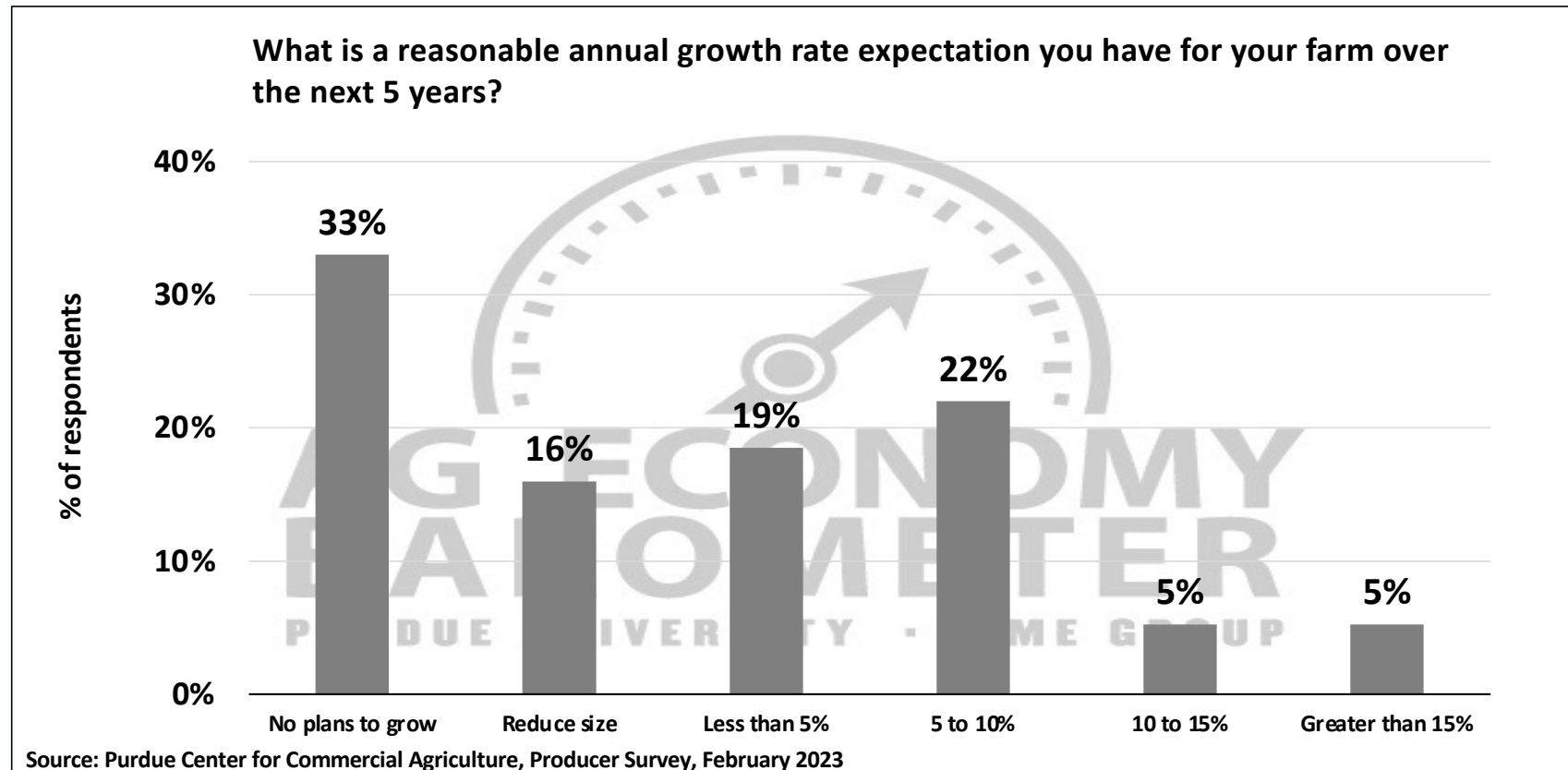
Fewer Farmers Expect Values to Rise & More Farmers Expect A Decline Than in the Last 3 Years



Producers Say Investment From Outside Agriculture is #1 Reason for Expecting Values to Rise

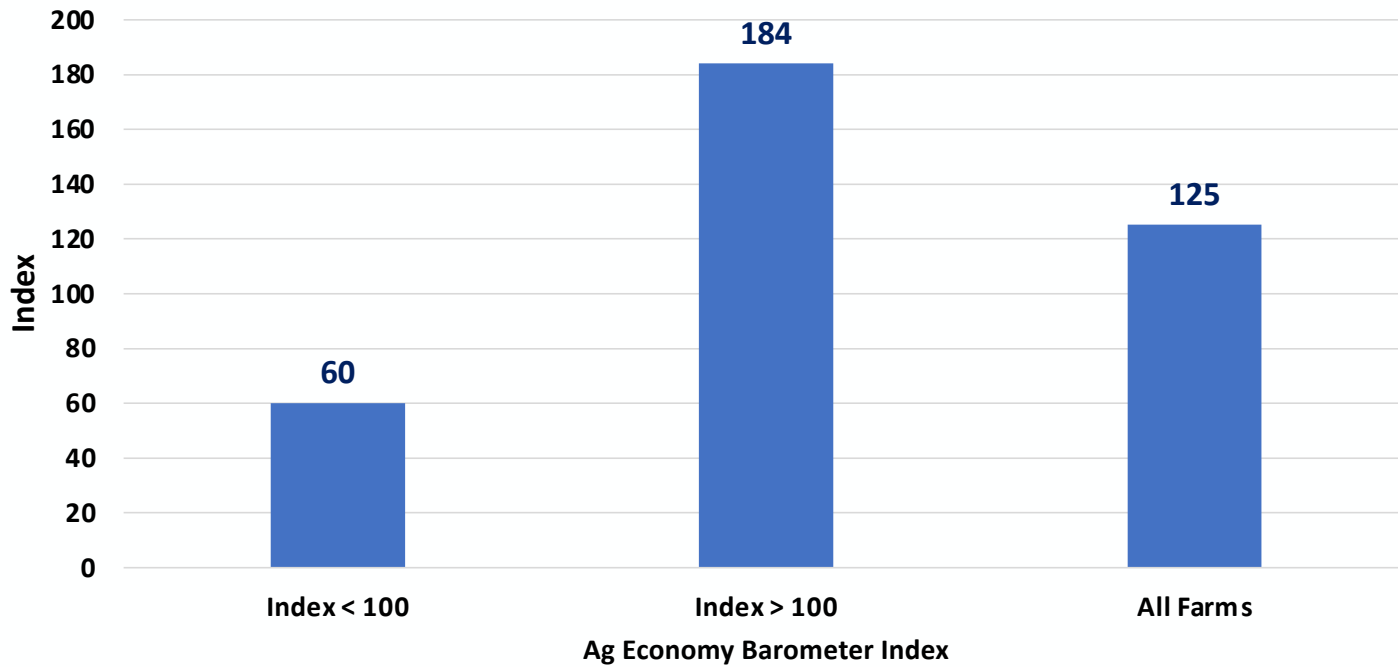


Our Surveys Reveal Wide Variations in Farm Operations' Plans for Growth



There Are Big Differences in Sentiment Among Survey Respondents

Individual Survey Respondents Ag Barometer Index Value
By Category, February 2023



Examining Each Respondents Index Values Provides Insights Into Growth Strategies

Differences in Sentiment by Farm Growth (G) Categories

	Growth < 0	Growth = 0	Growth > 0
Index of Current Conditions			
Index of Future Expectations			
Ag Economy Barometer Index			

Farm Operators Who Plan to Retire or Reduce Operation Size Are More Pessimistic

Differences in Sentiment by Farm Growth (G) Categories

	Growth < 0	Growth = 0	Growth > 0
Index of Current Conditions	116		
Index of Future Expectations	107		
Ag Economy Barometer Index	110		

Farm Operators With No Plans to Grow Are A Bit More Optimistic...But Current Situation Might Be Holding Them Back

Differences in Sentiment by Farm Growth (G) Categories

	Growth < 0	Growth = 0	Growth > 0
Index of Current Conditions	116	115	
Index of Future Expectations	107	126	
Ag Economy Barometer Index	110	122	

Who Plans to Grow? It's The "Optimists"

Differences in Sentiment by Farm Growth (G) Categories

	Growth < 0	Growth = 0	Growth > 0
Index of Current Conditions	116	115	150
Index of Future Expectations	107	126	130
Ag Economy Barometer Index	110	122	136

In the Long Run, Growth Is Not Optional...Consider Key Reasons Why Growth Is Necessary

1. Adoption of New Technology
 - ✓ Reduce costs
 - ✓ Improve profit margins
2. Improve asset utilization
3. Bring in new family members
4. Invest retained earnings
5. More fully utilize the skills of key managers

Thinking About Farm Growth...

What Are The Key Factors Influencing Farmland Values?

1. Net Return to Land

- What is the long-run corn price?
 - \$5.00, \$5.50, \$6.00 or ?

2. Capitalization Rate

- Long-run average cap rate = 5.3%
- Recent history = 2.5% or less

3. Inflation

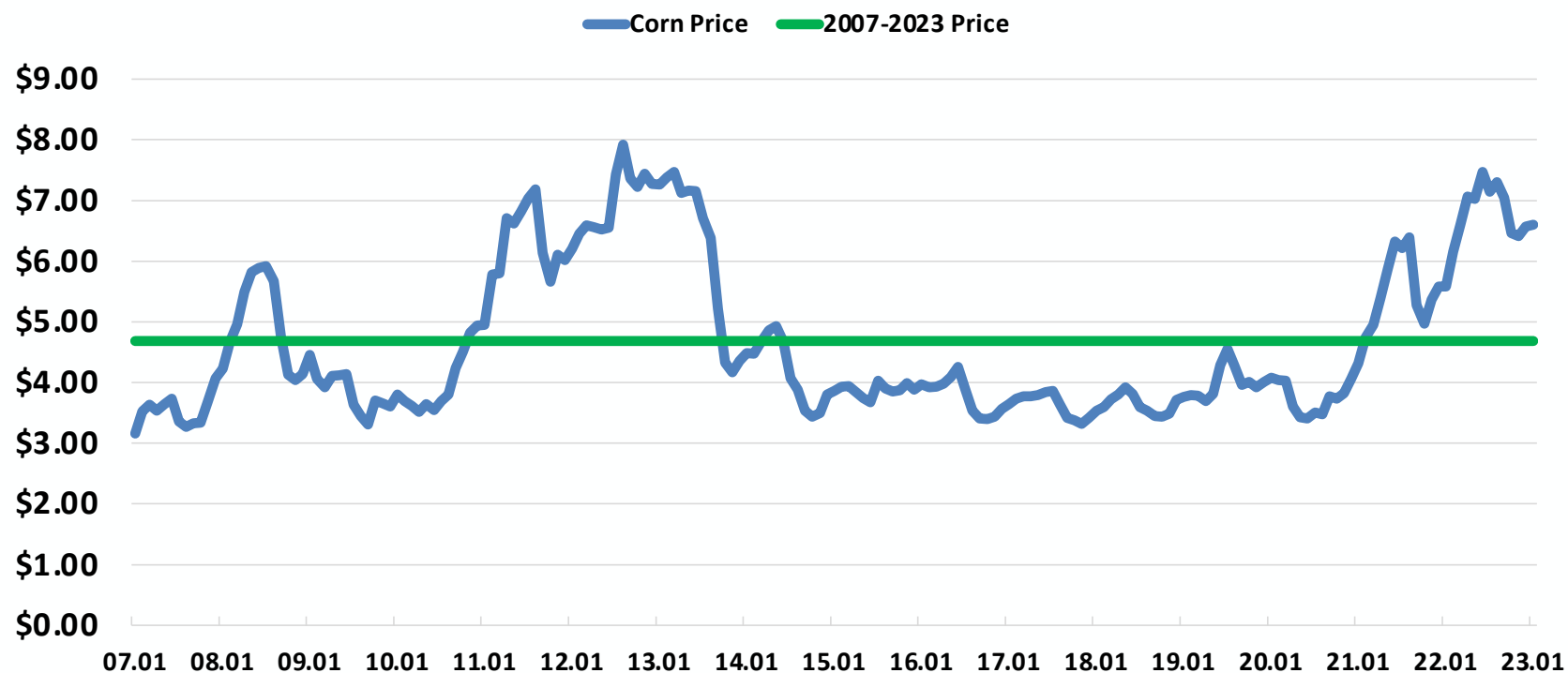
4. Alternative Investments



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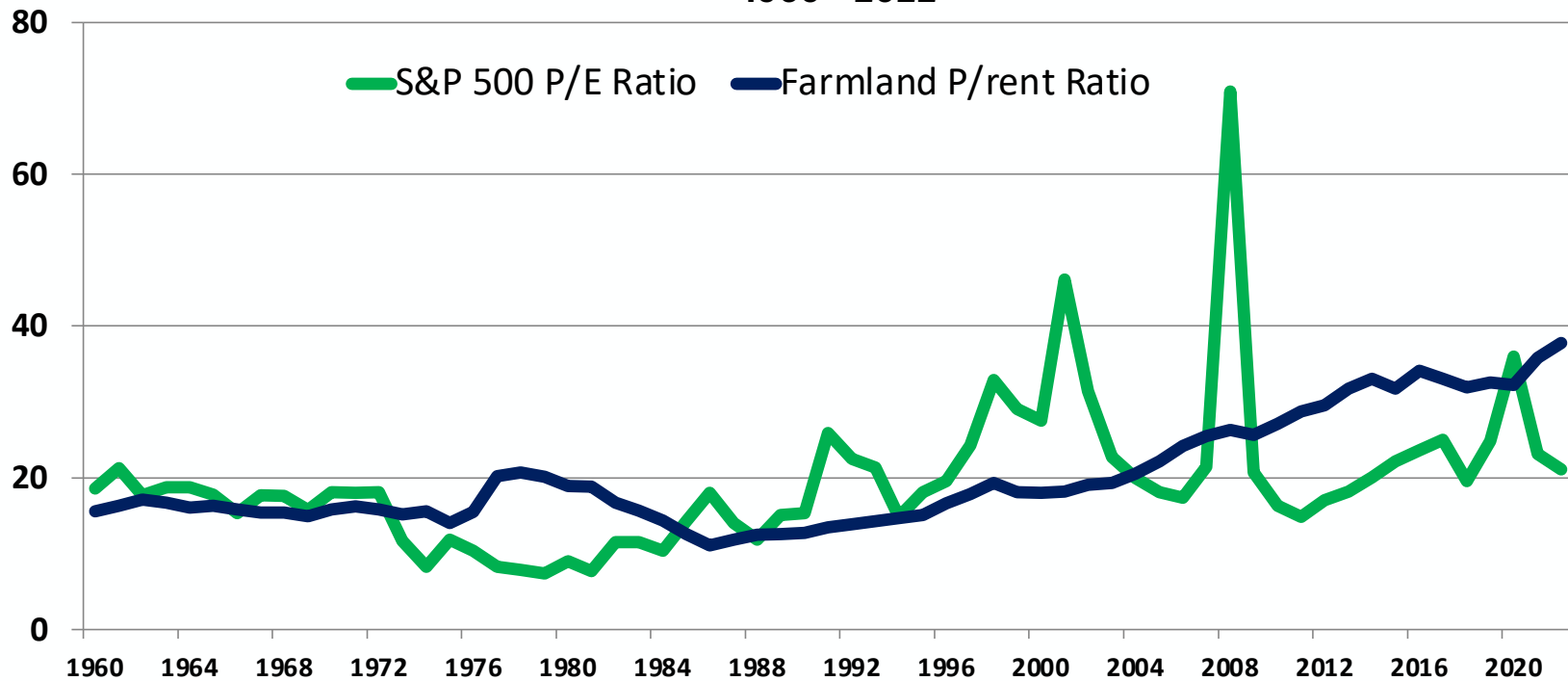
Will Corn Prices Revert to the Long Run Average?

Monthly Indiana Corn Prices, 2007 to 2023



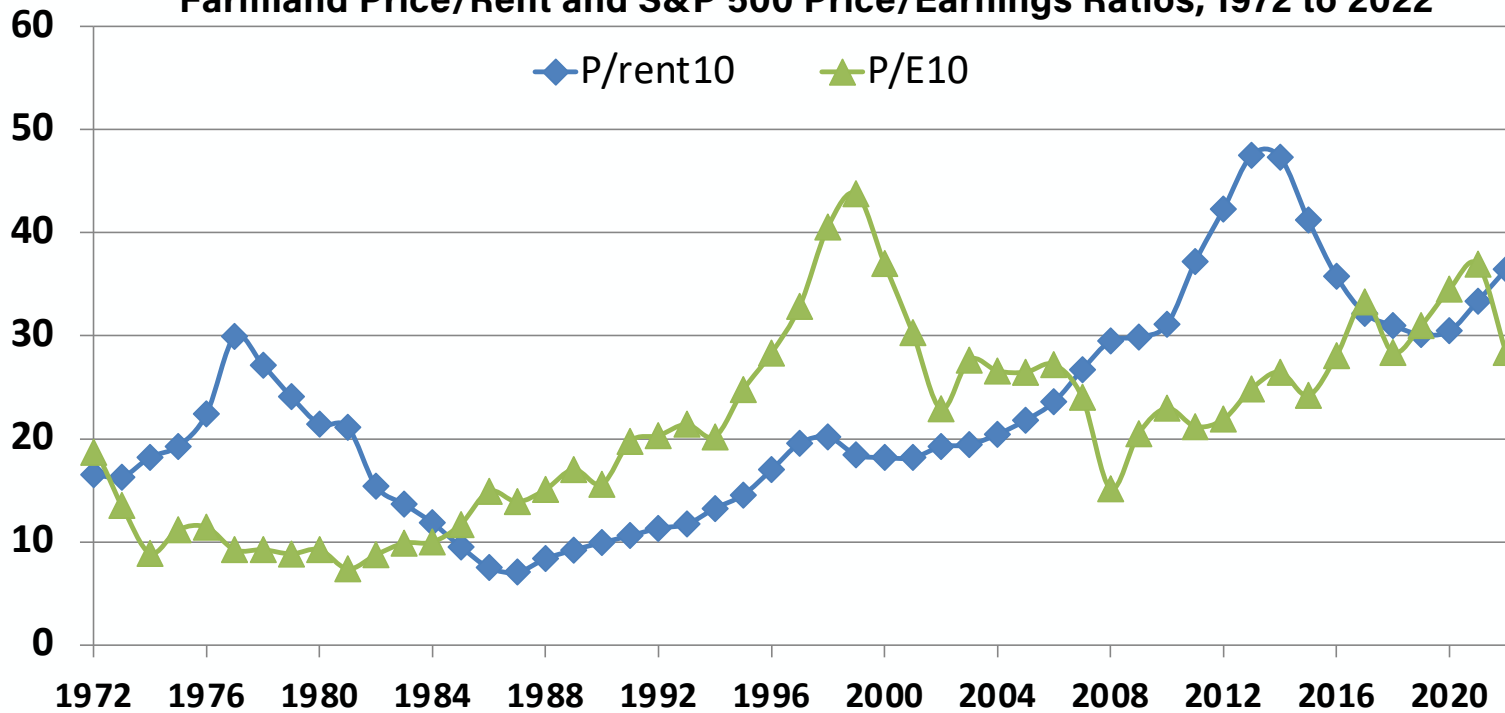
Thinking About Your Long-Run Reinvestment Plan for Growth

Farmland Price/Rent and S&P 500 Price/Earnings Ratios
1960 - 2022



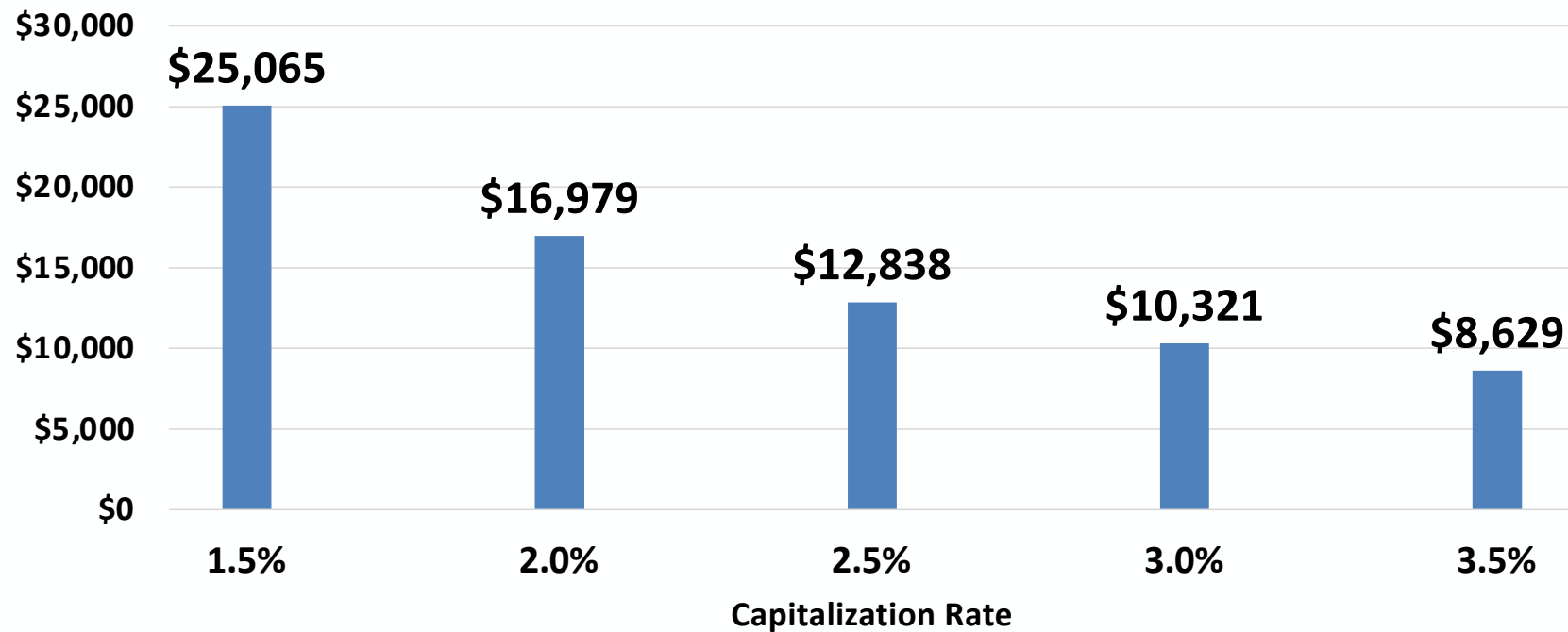
Long-Run Trends in Cyclically Adjusted Stock Market Price/Earnings and Price/Rent Ratios

Ten-Year Moving Averages of Cyclically Adjusted Farmland Price/Rent and S&P 500 Price/Earnings Ratios, 1972 to 2022



Land Values Are Also Very Sensitive to Changes in the Capitalization Rate

Present Value of Farmland At Various Capitalization Rates
Real Cash Rent = \$262 in Year 1, Growing @ 0.45%/Year



When Considering Management Strategies For Your Farm, Remember...

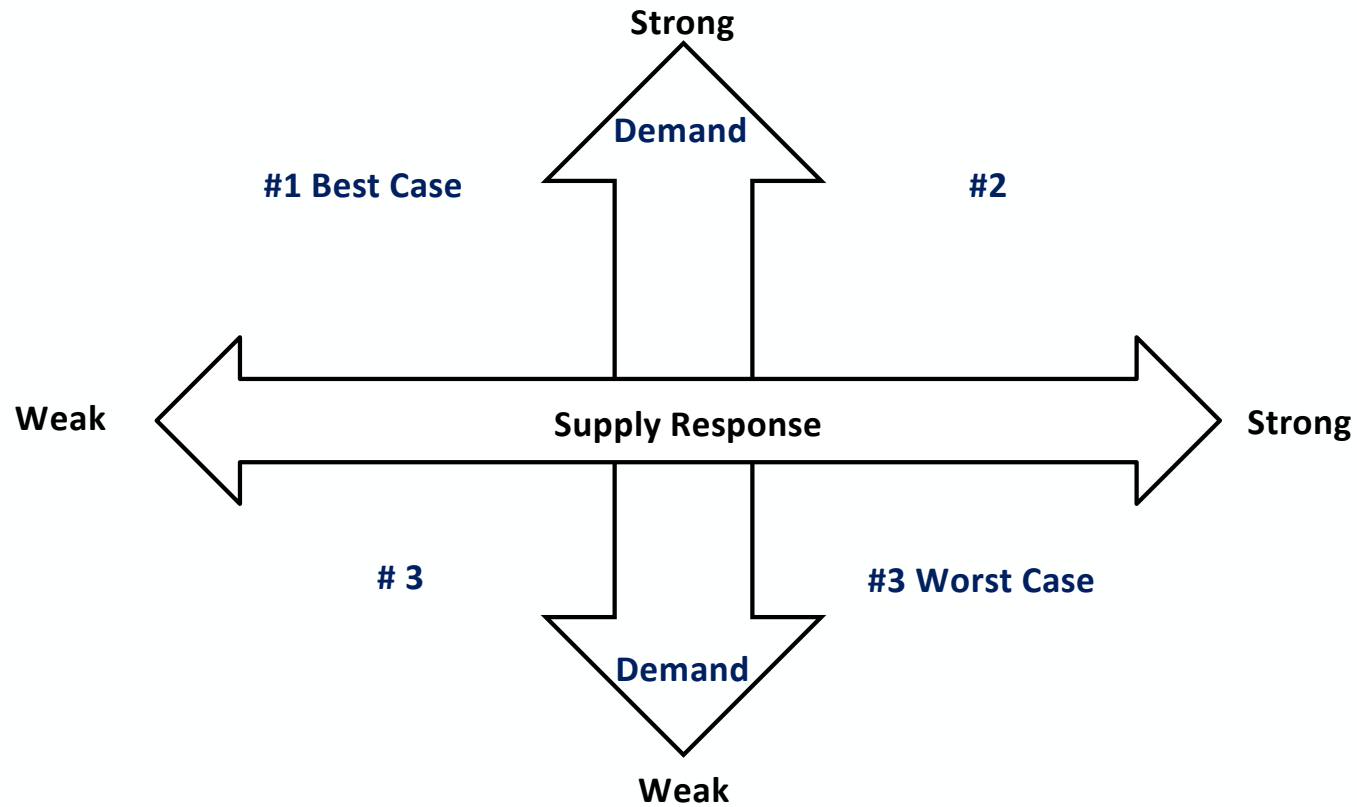
No One Actually Knows What's Going to Happen!

Good Managers Embrace Uncertainty and Develop Strategies to Increase the Odds of Success

Long-Run Farm Management Strategies to Increase Your Odds of Success

- 1. Decide what your competitive advantage is**
 - a) Low cost strategy**
 - b) Value added strategy**
- 2. Identify strategies that increase your odds of success such as**
 - 1. Taking advantage of seasonal trends in prices & basis**
 - 2. Growing value added crops**
 - 3. Upgrading farmland via improved drainage**
 - 4. *Developing a long-run reinvestment plan for growth***
- 3. Use scenarios to enable you to respond quickly to changing conditions**
 - a) Develop 1) Favorable, 2) Most Likely, and 3) Worst case scenarios**
 - b) Identify strategies you could pursue under each scenario**

Characterize Scenario's Using A Quadrant Approach






Looking Ahead...Upside and Downside Risks

Upside

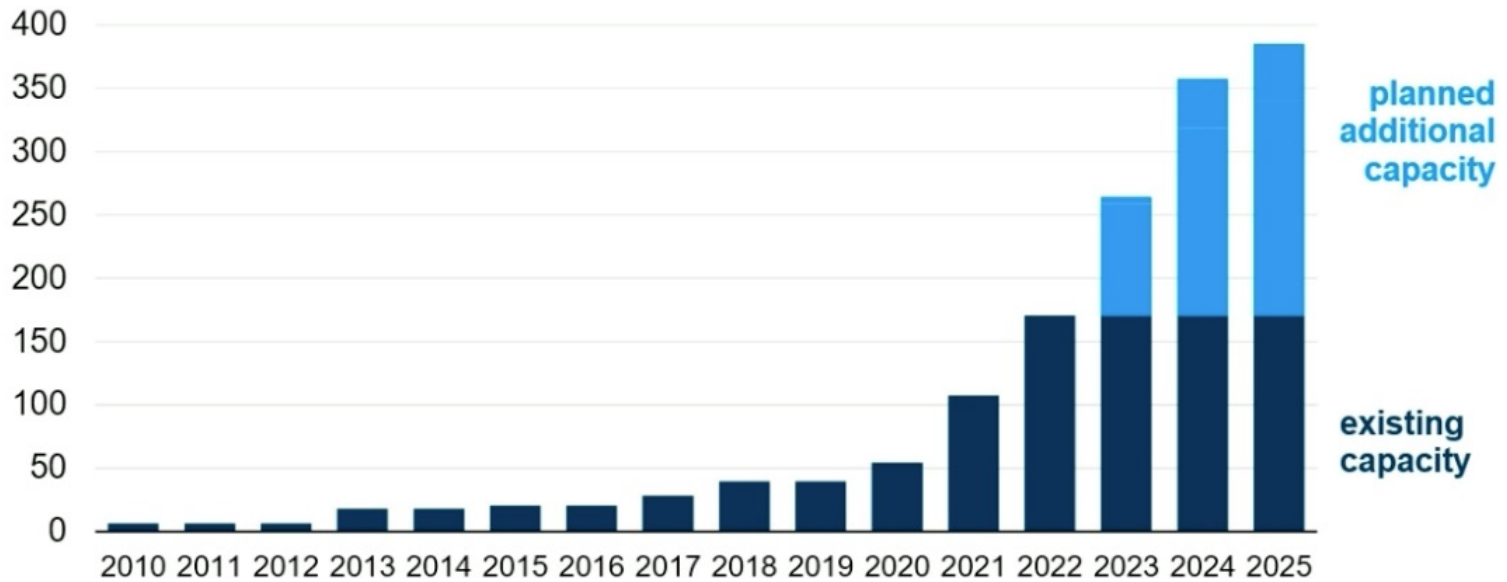
- Long-run world population growth
- Tight world supplies
- Growth in demand for renewable fuels

Guide to Bio-Based Fuels

RENEWABLE DIESEL	BIODIESEL	SUSTAINABLE AVIATION FUEL
<p>Renewable fuel that is chemically the same as petroleum diesel.</p>	<p>Renewable, biodegradable fuel that must be blended with petroleum diesel.</p>	<p>The common term for non-petroleum jet fuel.</p>
<p>RENEWABLE DIESEL 100% FUEL</p>	<p>BIODIESEL ← BETWEEN 2% AND 20% PETROLEUM DIESEL ← BETWEEN 98% AND 80%</p>	<p>SAF ← BETWEEN 10% AND 50% JET FUEL ← BETWEEN 90% AND 50%</p>
<p>Can be used in existing petroleum pipelines, storage tanks and diesel engines.</p>		
<p>MADE FROM:</p> <ul style="list-style-type: none">▶ vegetable oils▶ animal fats▶ recycled restaurant grease	<p>MADE FROM:</p> <ul style="list-style-type: none">▶ vegetable oils▶ animal fats▶ recycled restaurant grease	<p>MADE FROM:</p> <ul style="list-style-type: none">▶ wood residue▶ animal fats▶ algae▶ cooking/vegetable oil▶ sugars/alcohol▶ ethanol▶ greases
		

Lots of Additional Capacity Announcements...How Many Will Be Built?

Annual existing and expected U.S. renewable diesel production capacity (2010–2025)
thousand barrels per day



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Looking Ahead...Upside and Downside Risks

Upside

- Long-run world population growth
- Tight world supplies
- Growth in demand for renewable fuels
- Limited expansion capacity in key growing regions
- Conflict continues to inhibit Black Sea region's production & exports

Downside

- Increasing S. American acreage & production
- Rebound from weak yields in N. & S. America increases exportable supplies
- Possible world recession
- Strong U.S. dollar inhibits U.S. exports
- Rising interest rates raises production costs and negatively impacts land values

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