

# Strategic Positioning

Trey Malone

Boehlje Chair in Managerial Economics for Agribusiness

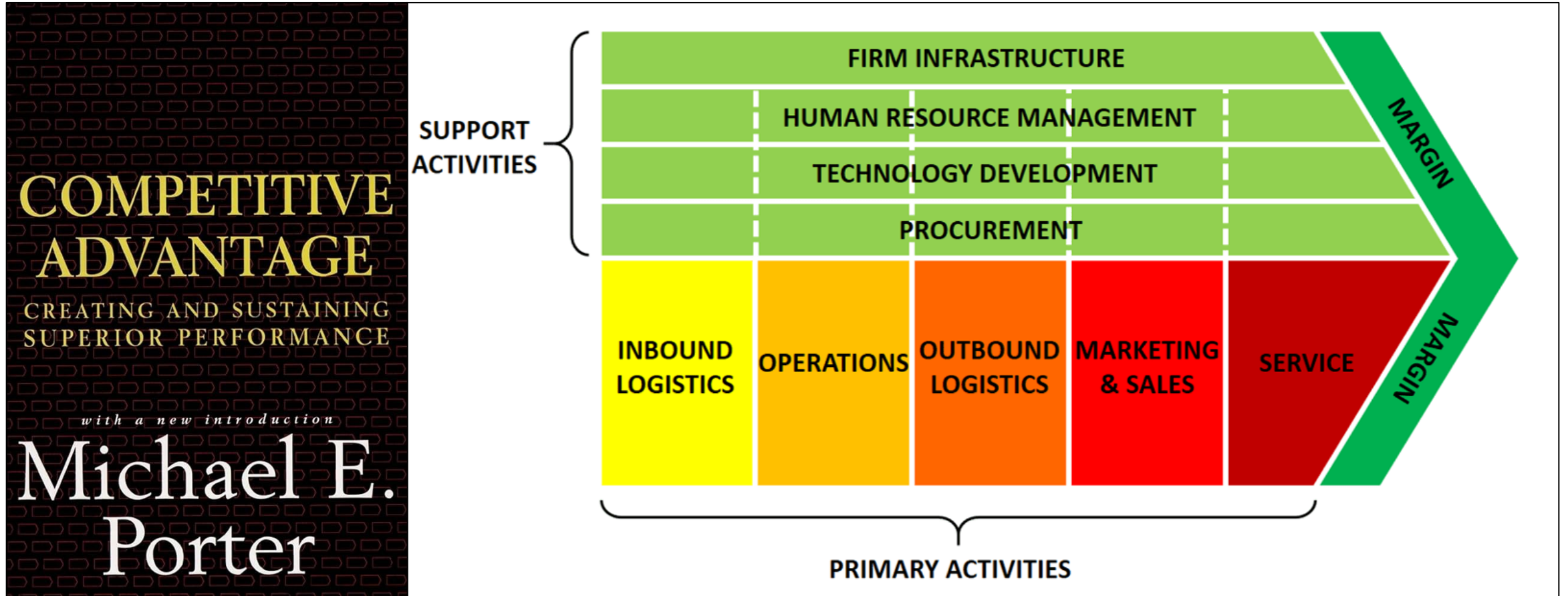
Department of Agricultural Economics

Purdue University

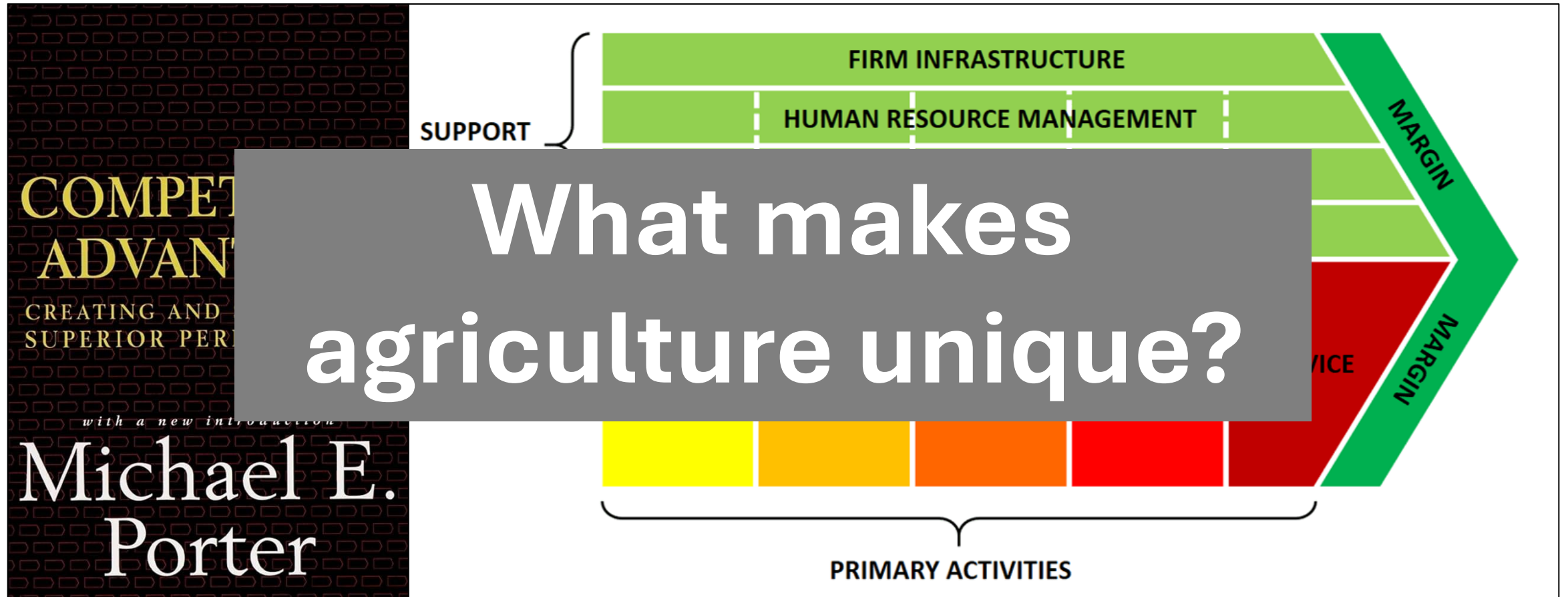
# Part I: Lean Management

# Part II: Supply Chain Disruptions

# Porter's (1985) Generic Value Chain



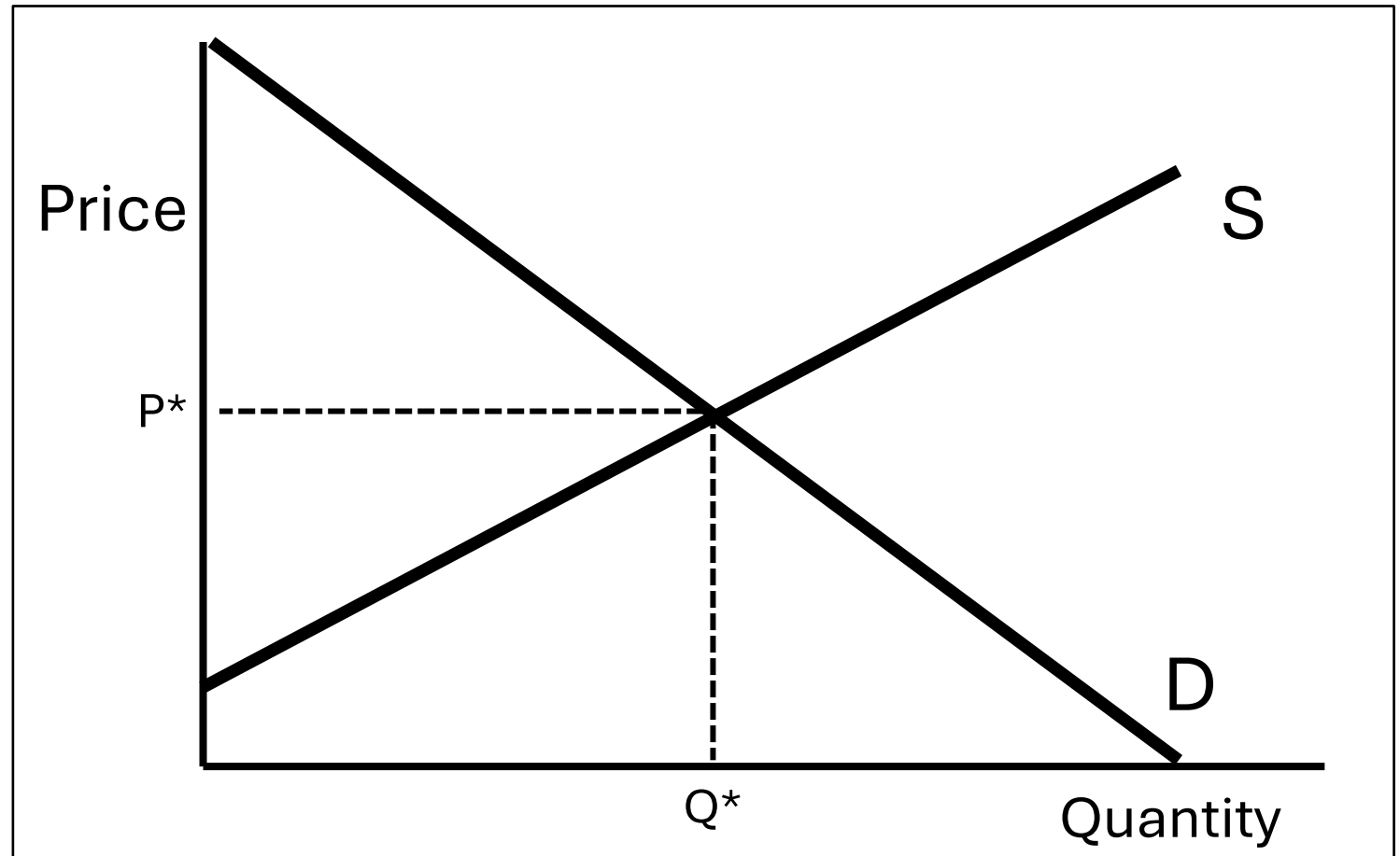
# Porter's (1985) Generic Value Chain



# Recall: Law of Supply

The quantity of a good supplied by sellers increases as its price increases

In equilibrium, **the quantity demanded and the quantity supplied are equal** ( $Q_D = Q_S$ )



# Recall: Law of Supply

The quantity  
increases

**Agriculture is unique  
because, at least in  
the short run, supply  
curves are more  
vertical.**

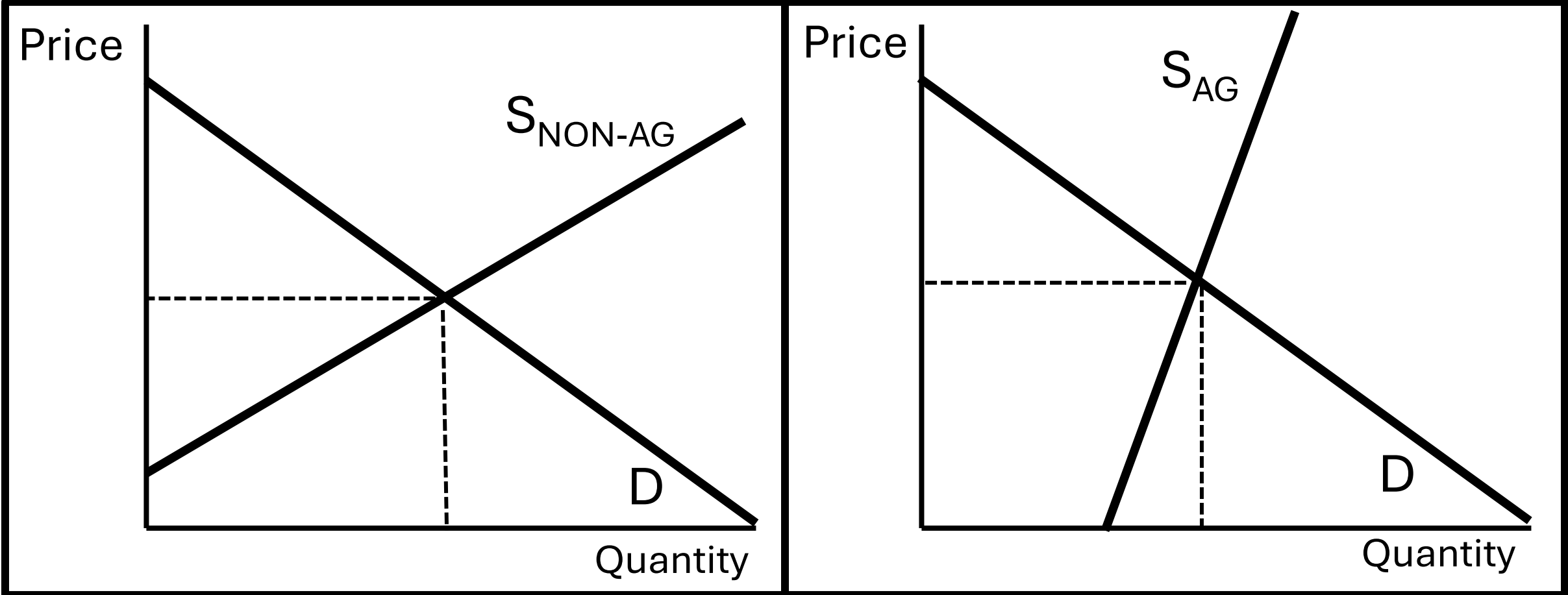
Price

S

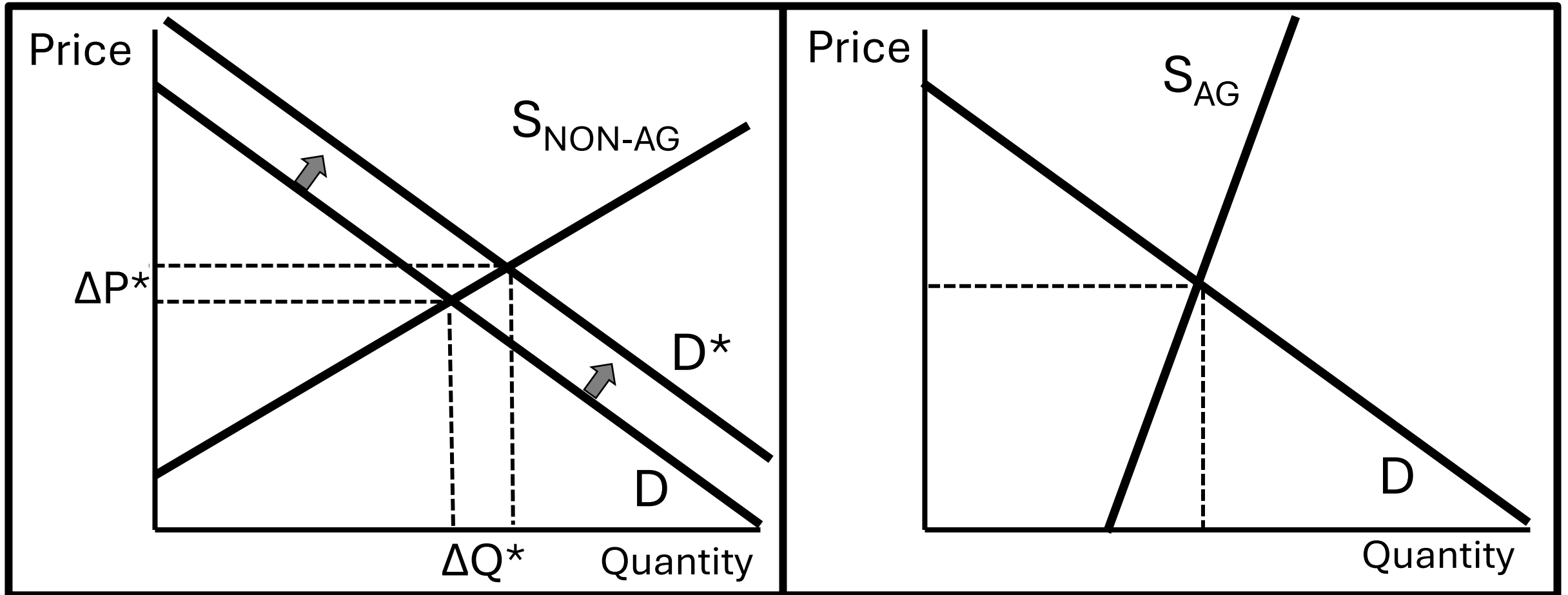
D

Quantity

# Agribusiness Supply Curves

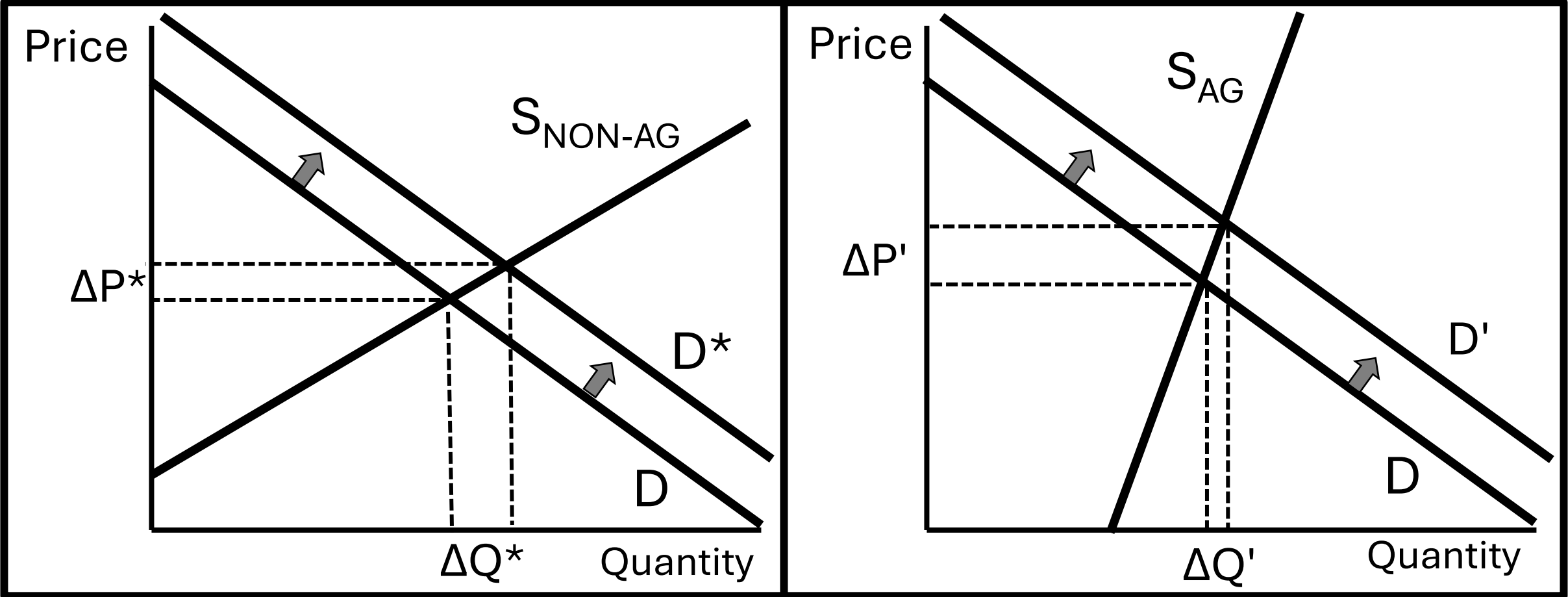


# Agribusiness Supply Curves

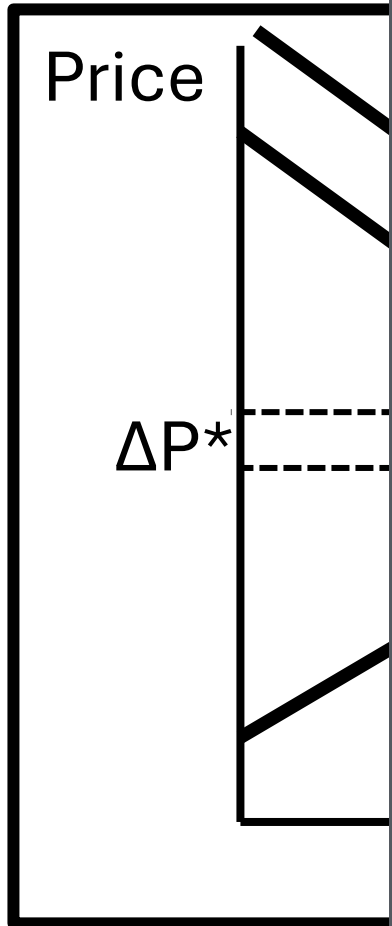




# Agribusiness Supply Curves

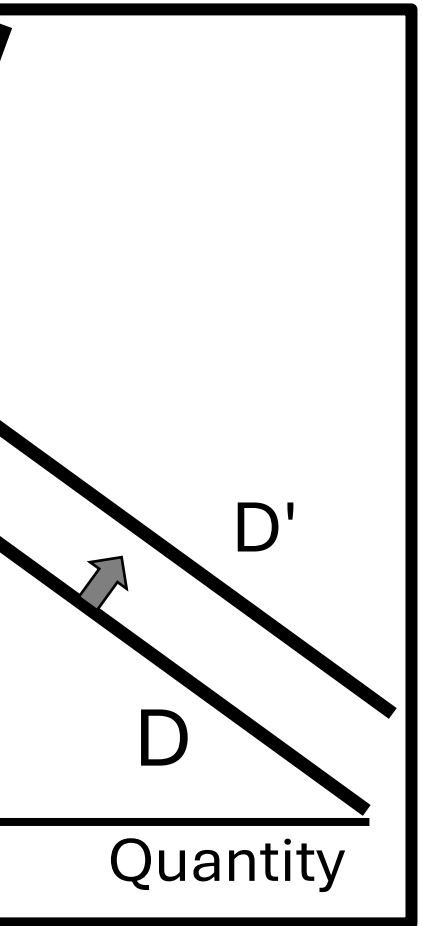


# Agribusiness Supply Curves

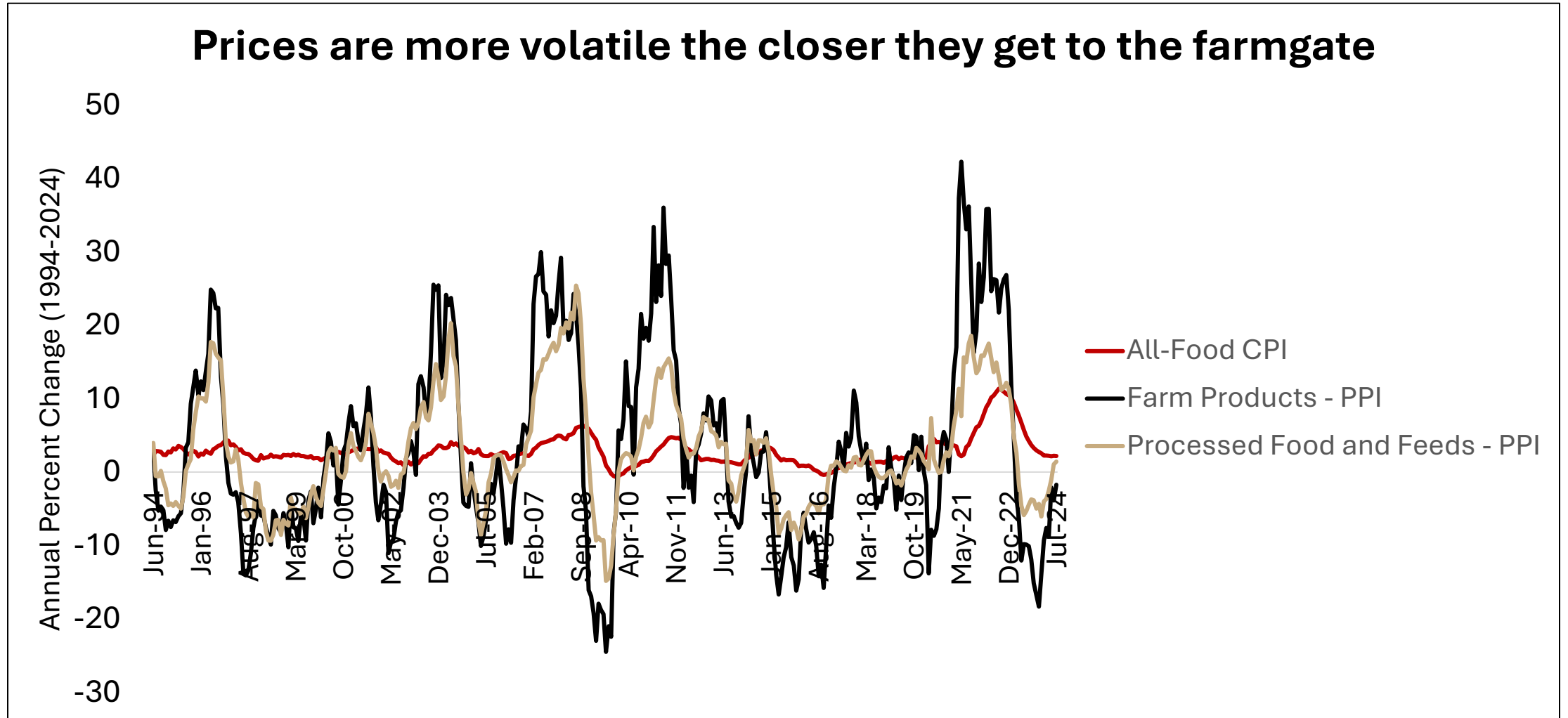


$\Delta P' > \Delta P^*$

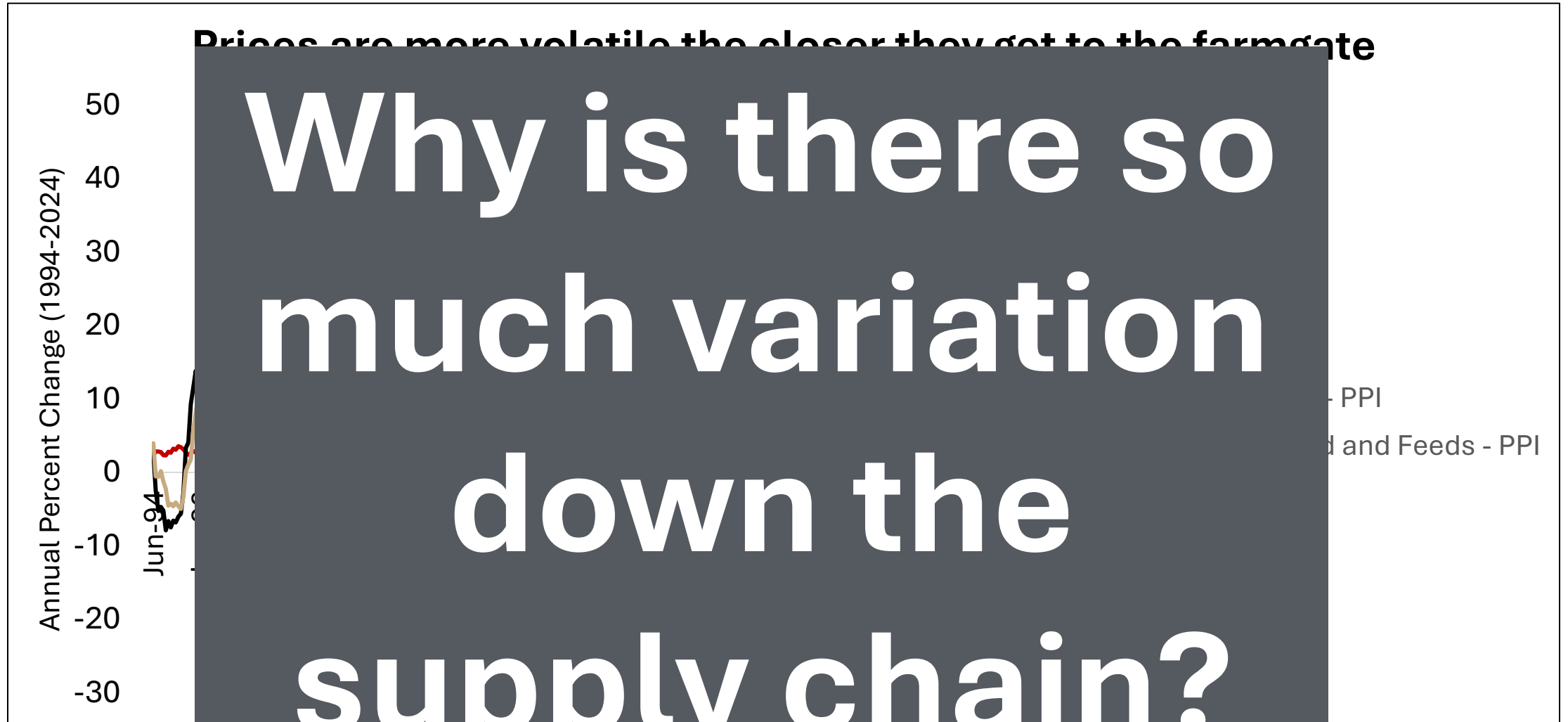
Because quantity adjustments are less possible, we often rely on price changes to reach equilibrium.



# Price Fluctuations in the Food System



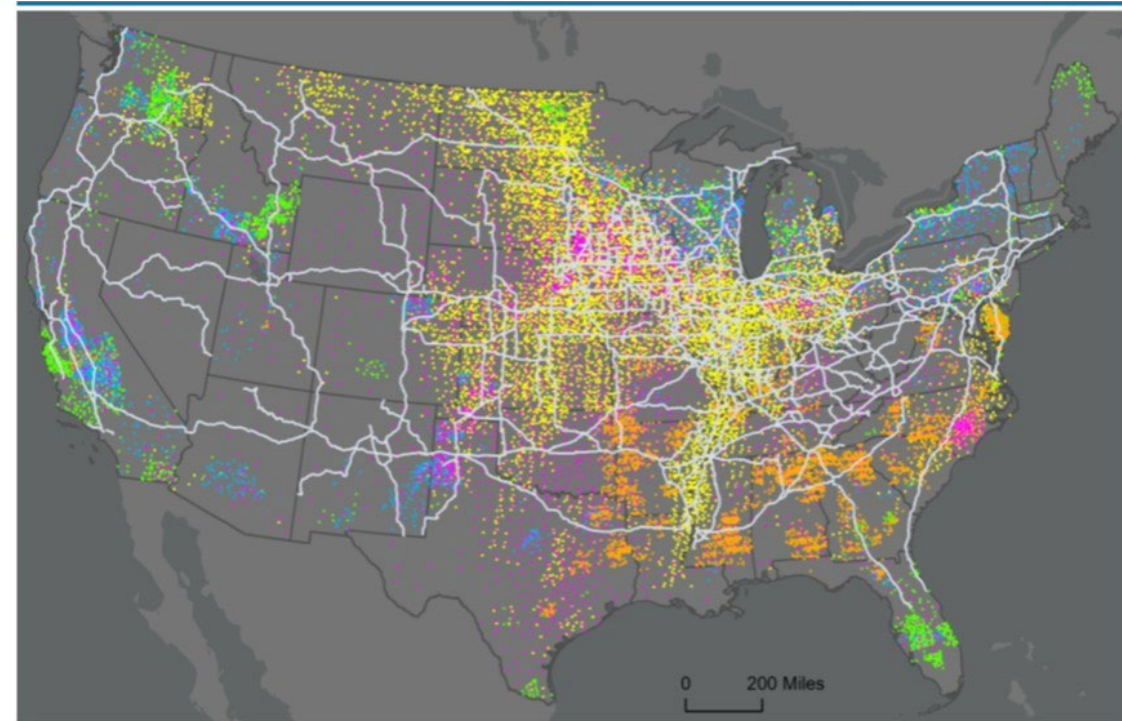
# Price Fluctuations in the Food System



# Agri-Food: Where Long Tails Meet Asset Specificity



Hard to get the same flavor profile if they were to substitute away from soft red winter wheat.



Source: Volpe Center analysis of 2017 Census of Agriculture and 2018 IHS Markit Transearch data

## Legend

- 1 dot ● = 1,000 Acres of Fruits & Vegetables Harvested
- 1 dot ● = 20,000 Acres of Grain Harvested
- 1 dot ● = 3,000 Heads of Dairy Cows
- 1 dot ● = 75,000 Heads of Livestock
- 1 dot ● = 400,000 Heads of Poultry
- High-Volume Domestic Agricultural Highways

# Agri-Food: Where Long Tails Meet Asset Specificity



## Agribusiness: Your Forecasts Really Matter

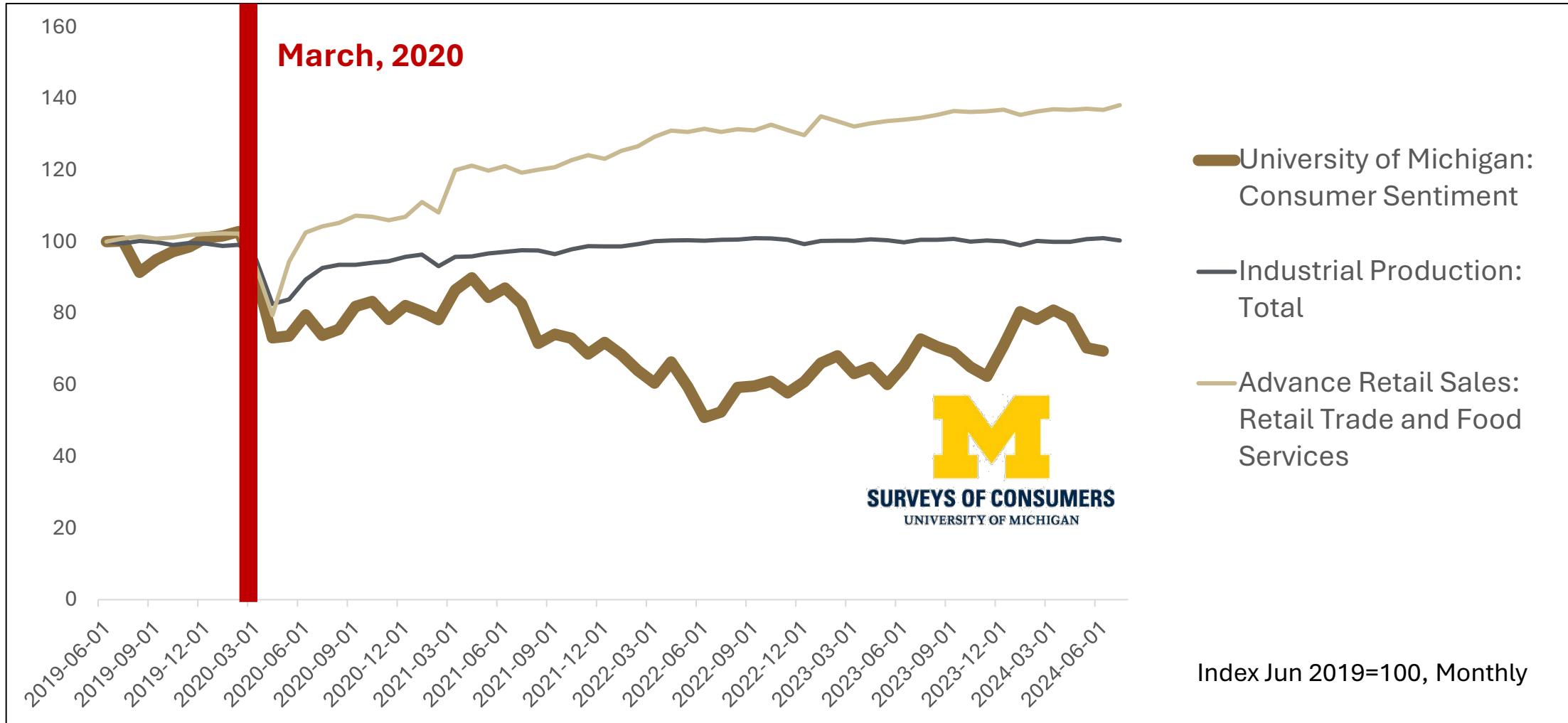


data

Hard to get the same flavor profile if they were to substitute away from soft red winter wheat.

1 dot = 75,000 Heads of Livestock  
1 dot = 400,000 Heads of Poultry  
— High-Volume Domestic Agricultural Highways

# U.S. Consumer Post-COVID Sentiment



# U.S. Consumer Post-COVID Sentiment

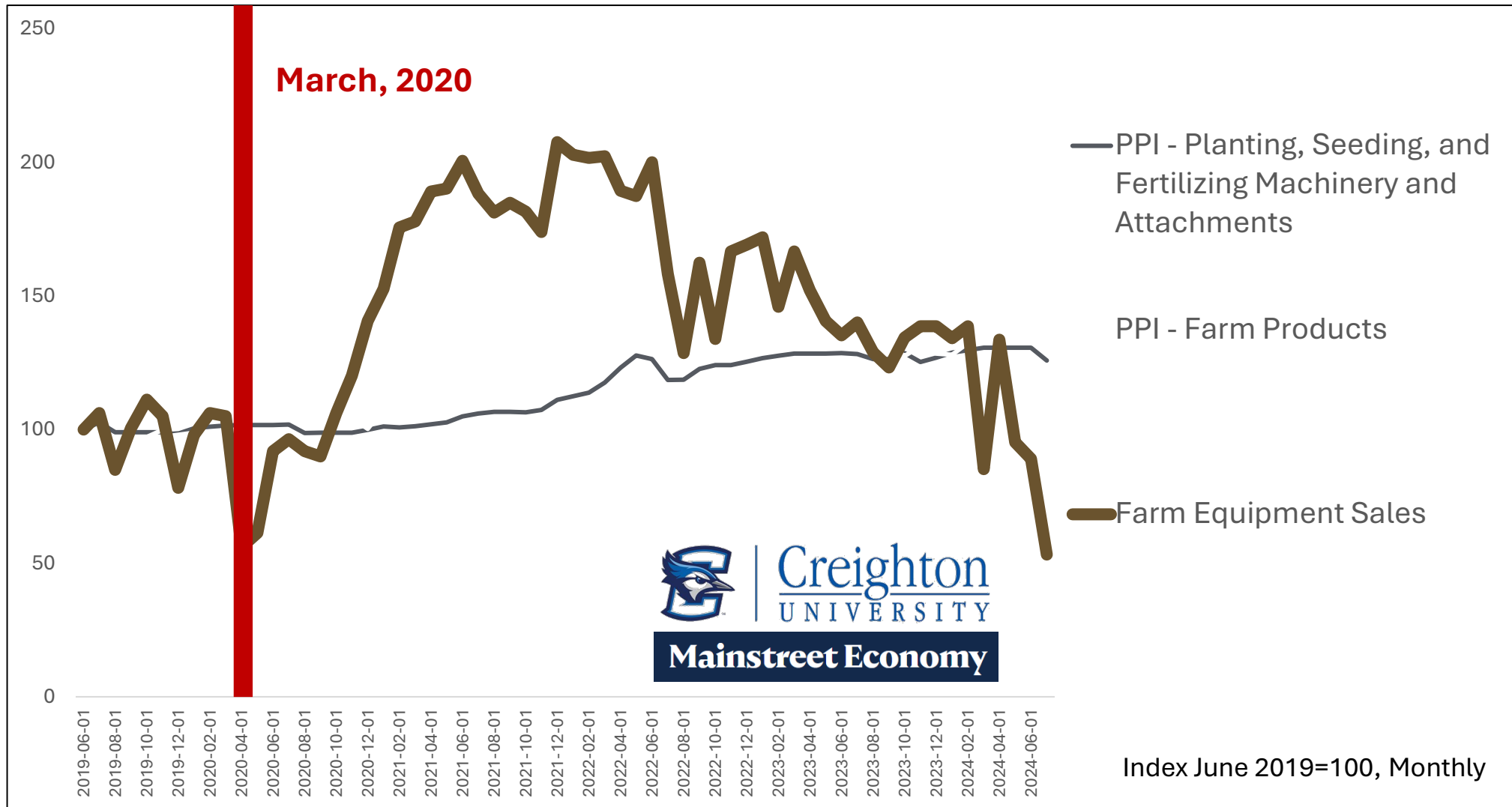
**Consumer Feelings  $\neq$   
Industrial Production and  
Spending**

2019-06 2019-09 2019-12 2020-03 2020-06 2020-09 2020-12 2021-03 2021-06 2021-09 2021-12 2022-03 2022-06 2022-09 2022-12 2023-03 2023-06 2023-09 2023-12 2024-03 2024-06

Index Jun 2019=100, Monthly



# Rural Bankers/CEO Farm Equipment Sales Opinions



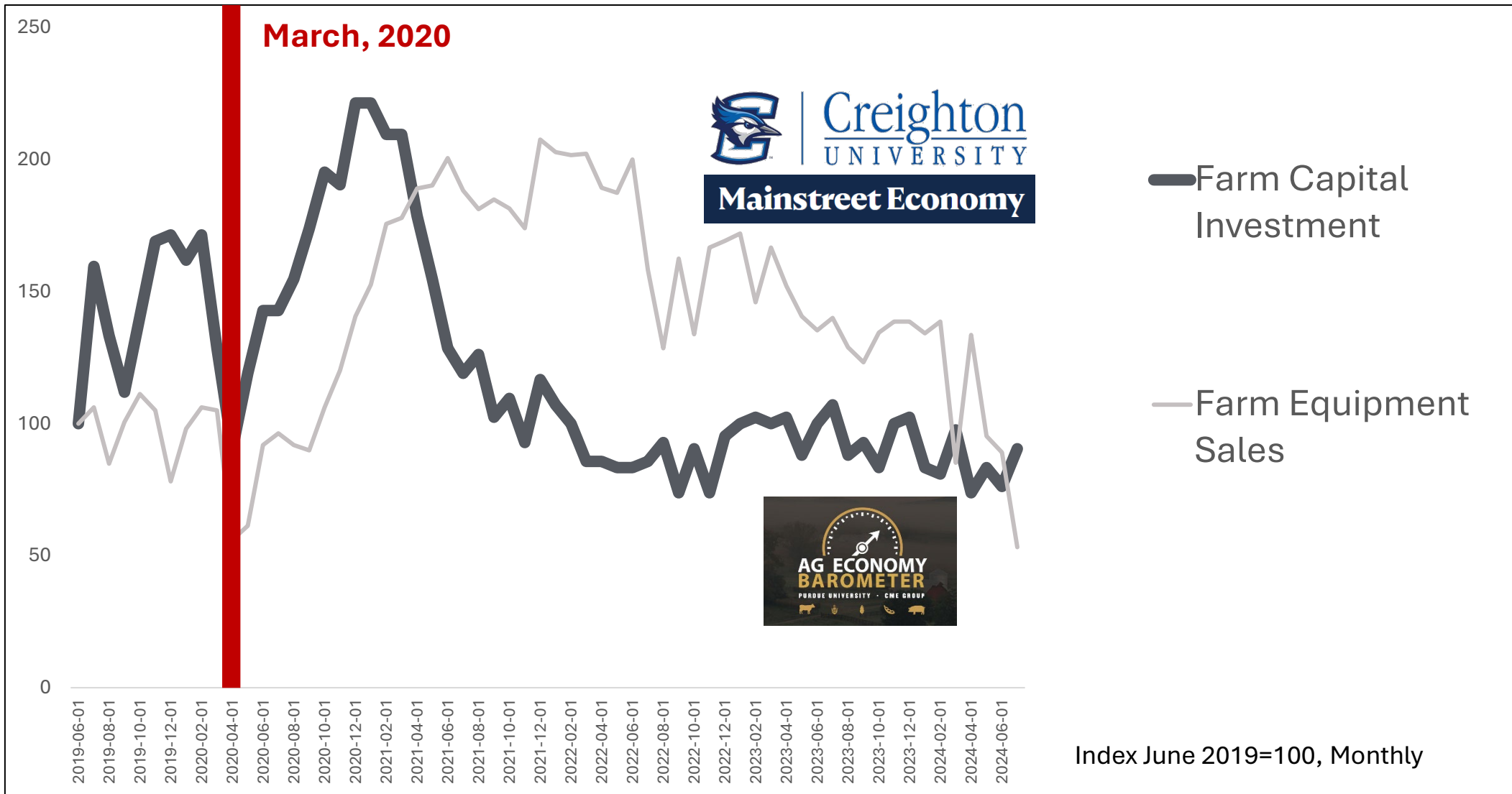
# Rural Bankers/CEO Farm Equipment Sales Opinions

**Farm Equipment Sales  $\neq$   
Producer Prices**

2019-06-01  
2019-08-01  
2019-10-01  
2019-12-01  
2020-02-01  
2020-04-01  
2020-06-01  
2020-08-01  
2020-10-01  
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2021-04-01  
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2024-06-01

Index June 2019=100, Monthly

# Farmers and Farm Equipment Sales



# Farmers and Farm Equipment Sales

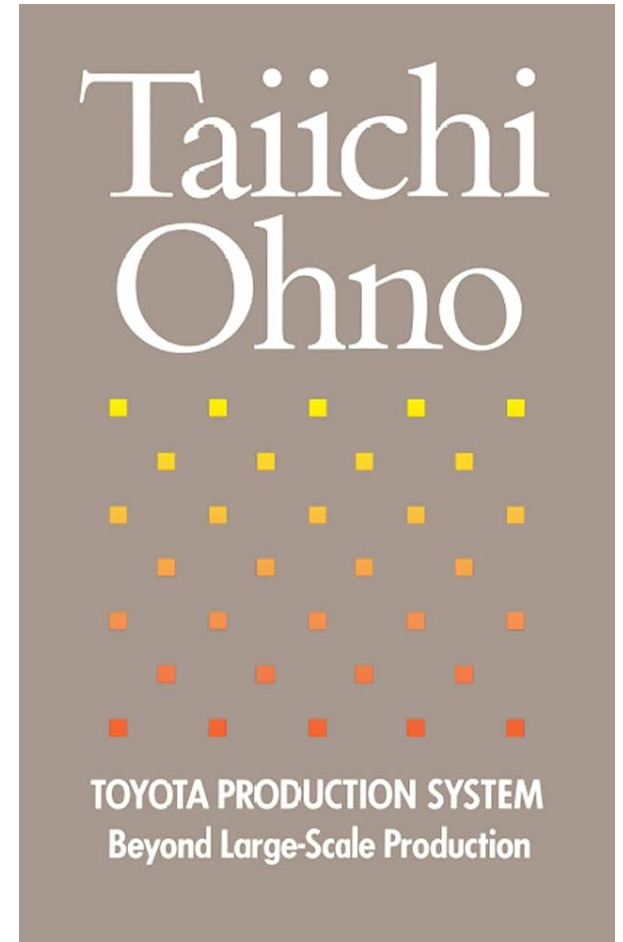
**Large farmer investment  
perceptions  $\neq$  Farm  
equipment sales**

2019-06-01  
2019-08-01  
2019-10-01  
2019-12-01  
2020-02-01  
2020-04-01  
2020-06-01  
2020-08-01  
2020-10-01  
2020-12-01  
2021-02-01  
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2023-10-01  
2023-12-01  
2024-02-01  
2024-04-01  
2024-06-01

Index June 2019=100, Monthly

# “Lean” Management Strategy

1. Define value from the customer's perspective
2. Identify the Value Stream
3. Make Value Flow
4. Pull from the Customer Back
5. Strive for Perfection



# Step 1: Define Value from the Customer's Perspective

# 1. Define value

**Precisely** define value in terms of specific products with specific capabilities offered at specific prices through a dialogue with specific customers




- What do customers believe satisfies their needs (root cause)?

## • Value is set by the customer

- What product and/or service are they willing to pay for
- Anything that does not fit into that description is not “value”

**What motivates the choice to custom hire pest management spraying services?**

Braeden Van Deynze<sup>a</sup> and Trey Malone<sup>b\*</sup>

Environmental Conditions:				
 <i>Expected Pest Damage</i>	<u>30% Yield Loss</u> After 3-Day Delay			
Custom Spray Options:				
 <i>Chance of a 3-Day Delay</i>	<b>Co-Op</b> 60%	<b>Another Farmer</b> 40%	<b>Input Dealer</b> 60%	
 <i>Custom Fee</i>	\$5 / Acre	\$5 / Acre	\$9 / Acre	
Additional Assumptions:				
<ul style="list-style-type: none"><li>• Expected soybean price at harvest is <b>\$9 per bushel</b></li><li>• Insecticide chemical cost is <b>\$5 per acre</b></li></ul>				
Given the information above, which option would you choose?				
Co-op	Another farmer	Input dealer	Spray myself	Not spray

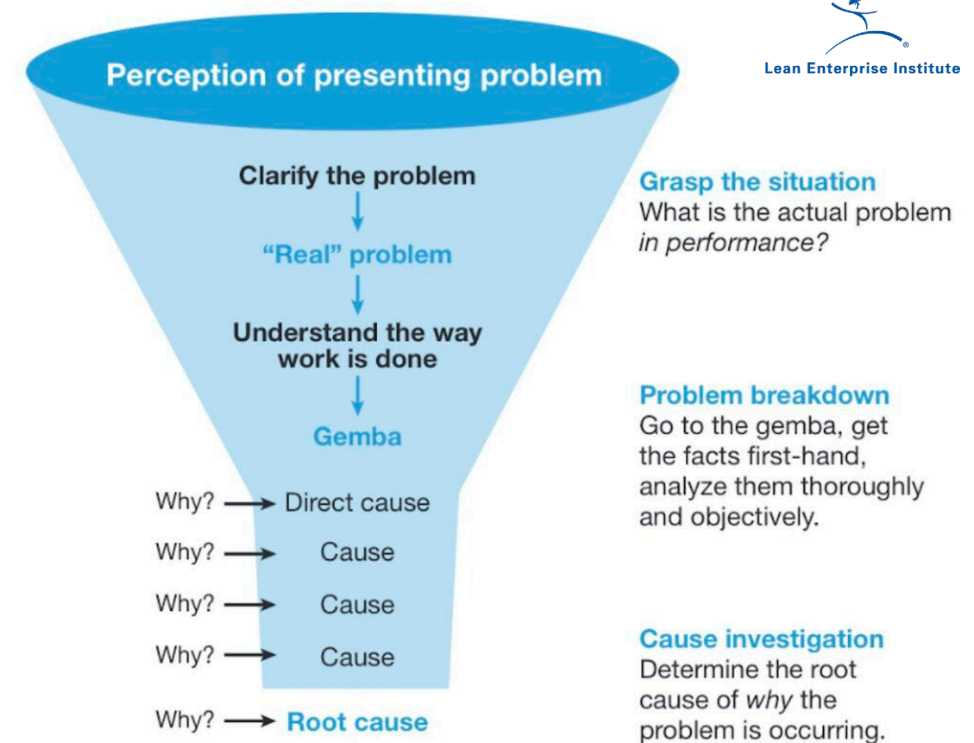
# 5 Whys Technique to Find the “Root Cause”

**Define the Problem:** Clearly state the issue impacting your customer that you’re solving

**Ask "Why?"** for the first time to understand why the problem is happening

**Ask "Why?"** again based on the previous answer

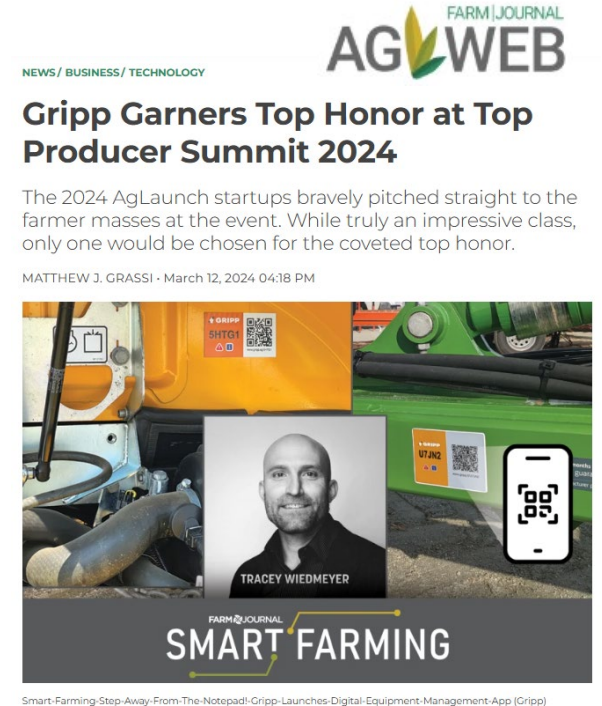
**Repeat** until the root cause is revealed (5 or so iterations)





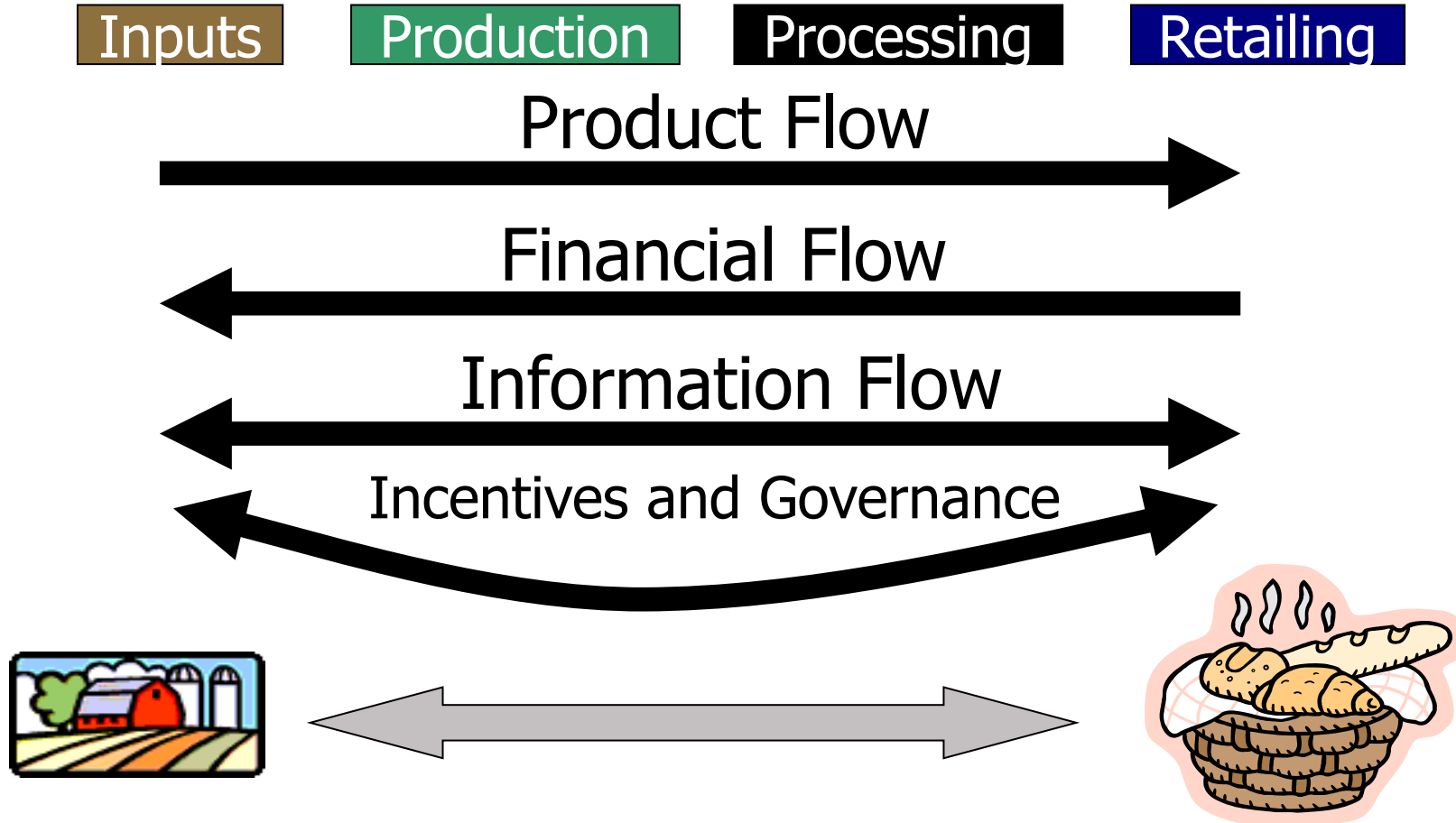
# Example Problem: Decrease in crop yield

- Why? → → → → The irrigation system isn't working
- Why? → → → → The water pump is malfunctioning
- Why? → → → → Pump maintenance was missed
- Why? → → → → No clear schedule for regular equipment checks
- Why? → → → → Lack of a defined maintenance protocol



# Step 2: Identify the Value Stream

## 2. Identify the Value Stream



All activities that add up source, make, and deliver a product to customers

# “How Do We Capture Margins?”

What drives product quality?

“Competitive advantage is the ability of a firm to outperform its industry—that is, to earn a higher rate of economic profit than the industry norm.”

Reduce cost of an activity – shrink the cost of the plate

Create value by better products/more services/lower cost for customer

- A bigger plate
- Share the customer’s increased margin

## TASTE TRUMPS HEALTH AND SAFETY: INCORPORATING CONSUMER PERCEPTIONS INTO A DISCRETE CHOICE EXPERIMENT FOR MEAT

TREY MALONE\*

*Department of Agricultural Economics, Oklahoma State University, Stillwater, Oklahoma*

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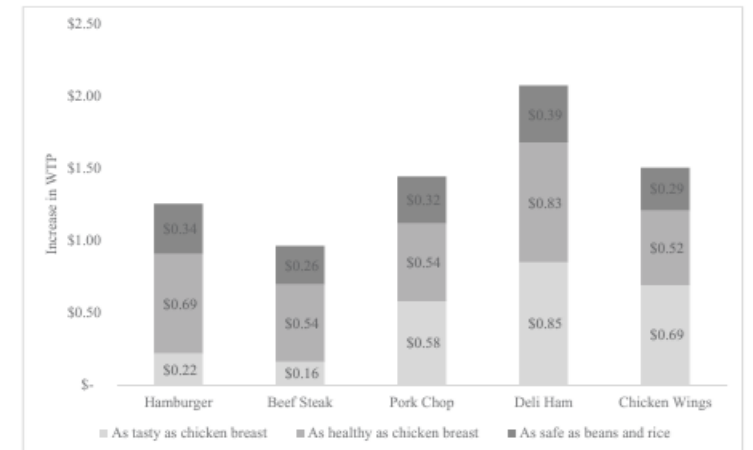


Figure 5. Hypothetical Increases in Willingness to Pay (WTP) when Taste, Health, and Safety Perceptions Are Maximized Relative to Other Products

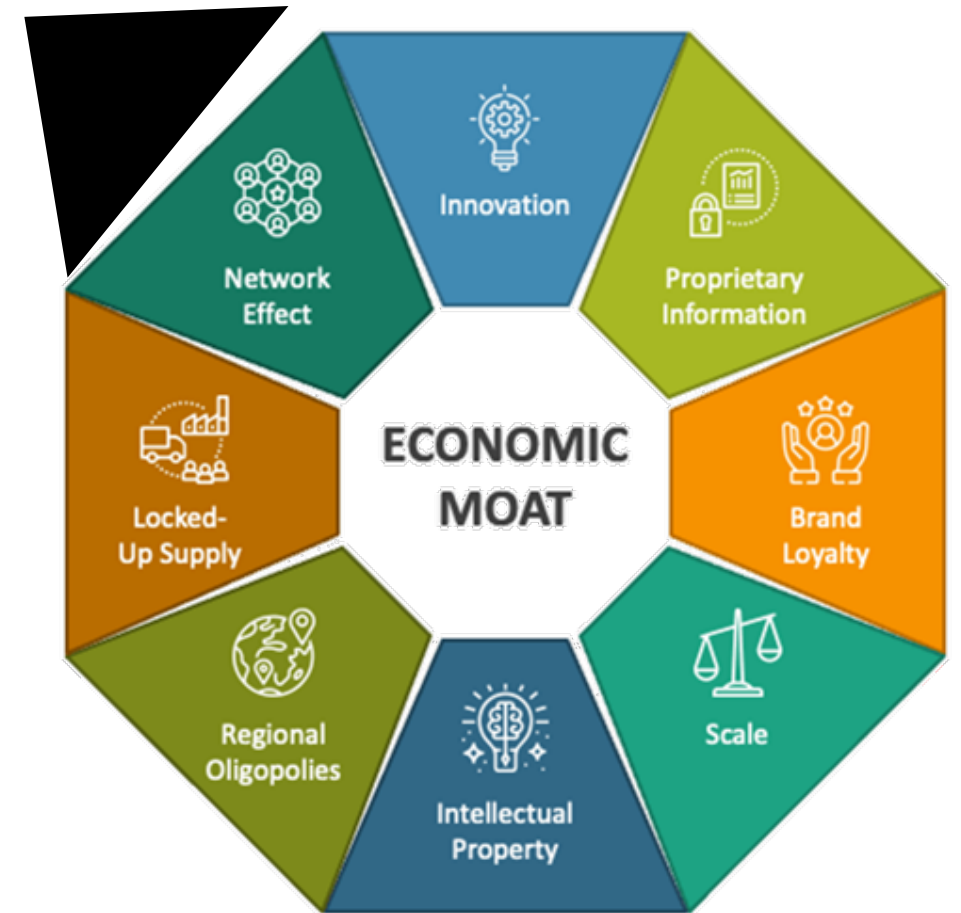
# “What is your Farm’s Economic *Moat*?”

High **switching costs** help incumbents because it’s difficult for customers to go to the competition

High **customer loyalty** helps incumbents who have high market share (and more customers)

Incumbents typically benefit from **network effects** because they are the ones with the network

Proprietary (or difficult) **access to inputs** helps those with relationships, suppliers, and connections



# Step 3: Make Value Flow

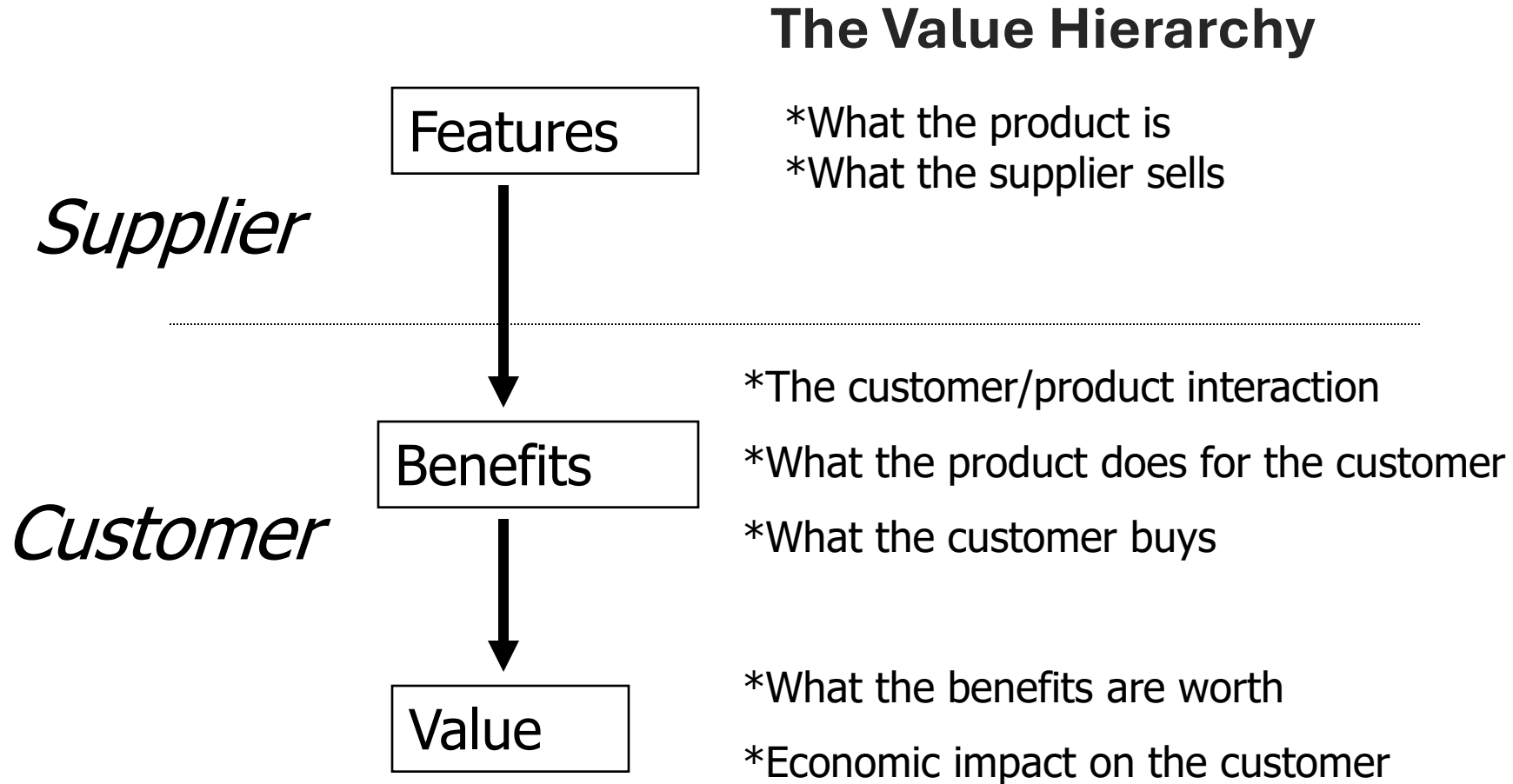
# 3. Make Value Flow

Eliminate all possible waste in the value stream to make the value-added steps work together continuously (no waiting, stopping, or rework)

- Focus on the end-product itself and what is required to complete a single product
- Re-evaluate boundaries between companies, departments, and individual roles with the goal of “removing all impediments to the continuous flow of the specific product”
- Redesign processes so production of the product can flow continuously



# 3. Make Value Flow



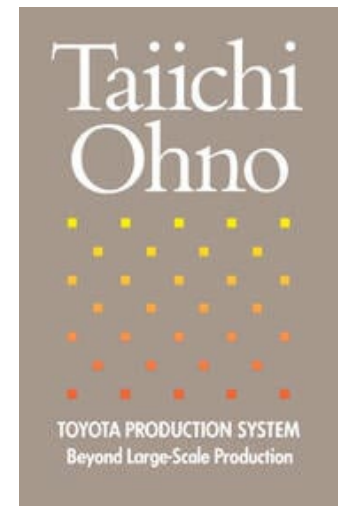


# 3. Make Value Flow

<b>Muda (Waste)</b>	<b>Description</b>
<b>Overproduction</b>	Making more parts than you can sell
<b>Delays</b>	Waiting for processing, parts sitting in storage, etc.
<b>Transporting</b>	Excessive movement of parts to various storage locations, from process to process, etc.
<b>Overprocessing</b>	Doing more “work” to a part than is required
<b>Inventory</b>	Committing money and storage space to parts not sold.
<b>Motion</b>	Moving parts more than the minimum needed to compete and ship them
<b>Making Defective Parts</b>	Creating parts that cannot be sold “as is” or that must be reworked, etc.

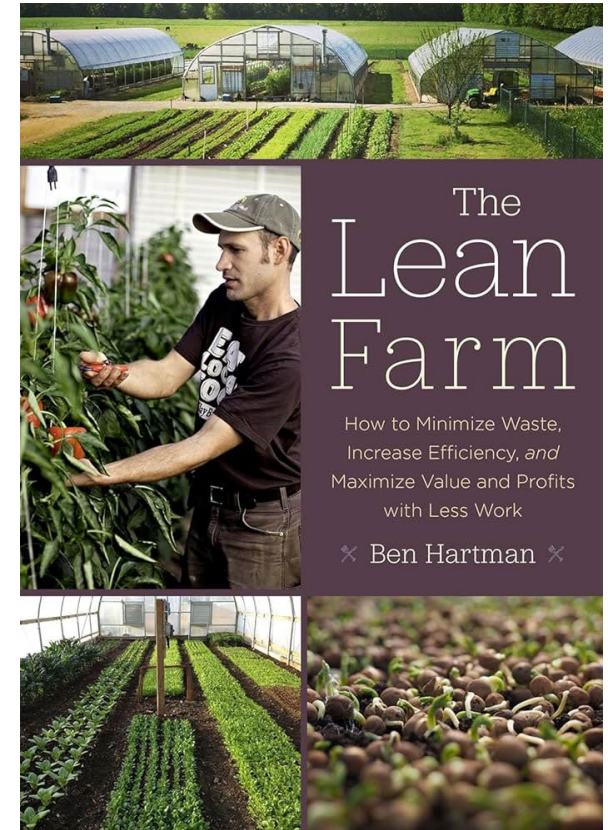


**TOYOTA**



# 3. Make Value Flow

1. Overproduction
2. Waiting
3. Transportation
4. Overprocessing
5. Inventory
6. Motion
7. Making defective products
8. Overburdening
9. Uneven production and sales
10. Unused talent



# Step 3. Make Value Flow

## 6-3-5 Brainwriting Design Thinking

1. Participants have 5 minutes to write 3 ideas of potential wastes
2. Pass the sheet to your neighbor, and each neighbor generates the next 3 ideas inspired by the previous ideas on the paper
3. Repeat step 3 until every participant has written on all
4. Review and cluster all generated ideas

# Step 4: Pull from the Customer Back

# 4. Pull from the Customer Back

Goal: Deliver **only** what customers want and when they want it (Pull), rather than pushing products out and guessing that customers might want them.

- “No one upstream should produce a good or service until the customer downstream asks for it”
- Real-time signals indicate to upstream activities when more is needed

Reasons Ranked as Deterrents to Online Agricultural Input Purchasing

Deterrent	Score	Group
Worry about guarantees and returns	1.16	a
Quality issues	0.74	b
Don't get to talk with anyone	0.70	bc
Harder to arrange for service	0.60	cd
Prices aren't any better	0.48	de
Security/cybersecurity concern	0.44	ef
Worry about delivery	0.40	ef
Inconvenient	0.35	f
Poor selection of products	0.15	g
I don't think of it	0.08	g
Other	0.07	g

# SCAMPER Method



## SCAMPER

A helpful way to think about how to innovate on an existing product, service, or situation by looking through different lenses

- Substitute
- Combine
- Adapt
- Modify (Also Magnify and Minify)
- Put to another use
- Eliminate
- Rearrange

**S** **SUBSTITUTE**  
Replace a think or concept with something else

**C** **COMBINE**  
Unit? What? Who? Ideas? Materials?

**A** **ADAPT**  
Adjust to a new purpose. Re-shape? Tune-up?

**M** **MODIFY, MAGNIFY, MINIFY**  
Change the color, sound, motion form, size  
Make it larger, stronger, thicker, higher, longer  
Make it smaller, lighter, slower, less frequent, reduce

**P** **PUT TO ANOTHER USE**  
Change when, where, location, time or how to use it.

**E** **ELIMINATE**  
Omit, get rid of, cut out, simplify, weed out...

**R** **REARRANGE, REVERSE**  
Change the order, sequence, pattern, layout, plan, scheme, regroup, redistribute...

# SCAMPER Method: Substitute

- **Replace a part of the product, process, or service with an alternative**
- Could involve materials, methods, or even people
  - What materials, components, or people can be substituted?
  - Can you substitute one process with another for better efficiency?
  - Can you replace a step in the system with a more efficient or cost-effective one?
- Examples:
  - Replacing a raw material with a more sustainable alternative
  - Substituting an outdated technology with a modern, more effective one
  - Using automation instead of manual labor for repetitive tasks

# SCAMPER Method: Combine

**Merge two or more ideas, processes, products, or services to create something new or to improve efficiency**

- Can you combine different products or services to offer more value?
- Can you merge processes to save time and resources?
- Is there potential for combining technologies for innovation?

Examples:

- Merging two software applications into one comprehensive solution.
- Combining marketing and sales strategies for a unified customer approach
- Using cross-functional teams from different departments to tackle a problem



# SCAMPER Method: Adapt

**Adjusting or tweaking an existing product, process, or solution to better fit a specific context, problem, or market**

- What could you change to suit current needs or conditions better?
- How could you modify existing resources or solutions to achieve a better outcome?
- Are there parts of another industry's solution that can be adapted to your situation?

Examples:

- Adjusting a marketing strategy to target a different demographic or regional market
- Adapting a product designed for one purpose to solve a different problem
- Using technology developed for another sector and modifying it for use in your business

# SCAMPER Method: Modify (Magnify and Minify)

## Changing a product, service, or process's size, shape, or other attributes

Magnify means expanding or enhancing certain features, while Minify involves reducing or simplifying elements

- Can you magnify (increase) certain features to make the product more impactful or valuable?
- Can you minify (reduce) aspects of the process to make it more efficient or cost-effective?
- What elements can be made larger or more prominent to add value?
- What parts can be reduced to improve simplicity or affordability?

Examples:

- Magnify: Increasing the functionality of a smartphone by adding new features or larger storage capacity
- Minify: Reducing the packaging size to save on materials or lowering the number of steps in a process to enhance efficiency

# SCAMPER Method: Put to another use

**Finding new uses for a product, service, or process. It focuses on novelly applying existing resources to a different market or situation.**

- Can this product or service be used in a different industry or market?
- Are there alternative uses for this product that have not been explored yet?
- How can existing resources be repurposed for other goals or audiences?

Examples:

- Using an old factory building for a completely different business, like office spaces or art studios.
- Applying a food-processing technique for pharmaceuticals or cosmetics.
- Repurposing a software tool initially developed for financial services for healthcare data management.

# SCAMPER Method: Eliminate

**Removing parts of a product, process, or service to reduce complexity, improve efficiency, or reduce costs**

Focus on essential elements and eliminate anything unnecessary

- What parts of the product or process can be eliminated without affecting functionality?
- Can you remove unnecessary features to simplify the product?
- Are there steps in a process that can be removed to increase efficiency?

Examples:

- Eliminating redundant steps in a manufacturing process to save time and reduce waste
- Removing features from a product to create a more affordable or streamlined version
- Simplifying a user interface by eliminating non-essential functions

# SCAMPER Method: Rearrange

**Changing the order, sequence, or layout of a product, process, or service**

Can create efficiencies, improve user experience, or lead to new functions

- Can the workflow or sequence be rearranged to improve efficiency?
- What if the order of operations was reversed or shuffled?
- Can components or systems be rearranged to offer better outcomes?

Examples:

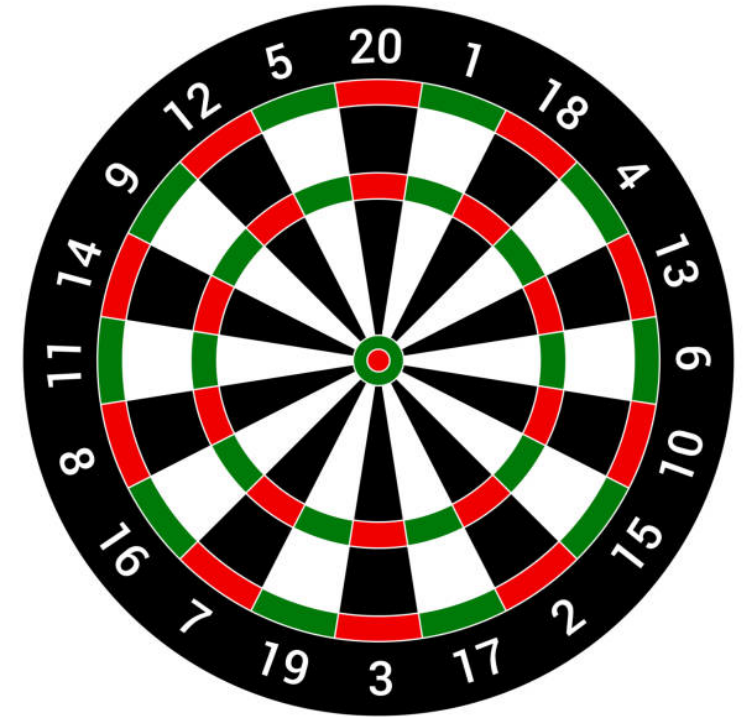
- Rearranging the layout of a store to enhance customer flow and improve sales
- Reordering steps in a manufacturing process to minimize waste or reduce production time
- Changing the structure of a service offering to better align with customer needs

# Step 5: Strive for Perfection

# 5. Strive for Perfection

Constantly strive to source, make, and deliver a better product while improving efficiency

- “Form a vision, select the two or three most important steps to get you there, and defer the other steps until later”
- Don’t settle for just being better than your current competition, because someone will come along and top you
- Practice transparency across the entire value stream to discover opportunities for improvement



# Strategic Positioning

Trey Malone

Boehlje Chair in Managerial Economics for Agribusiness

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**Part I: Lean Management**

**Part II: Supply Chain Disruptions**

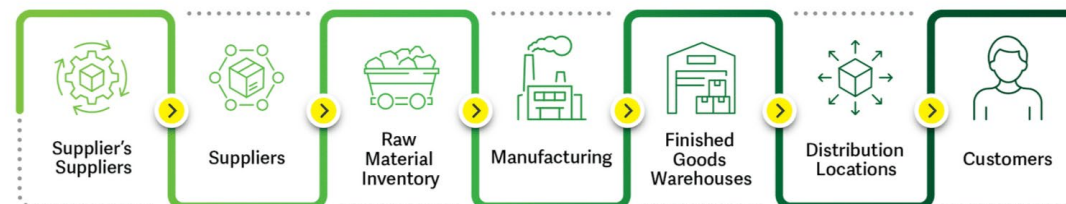
# What is Supply Chain Resilience?

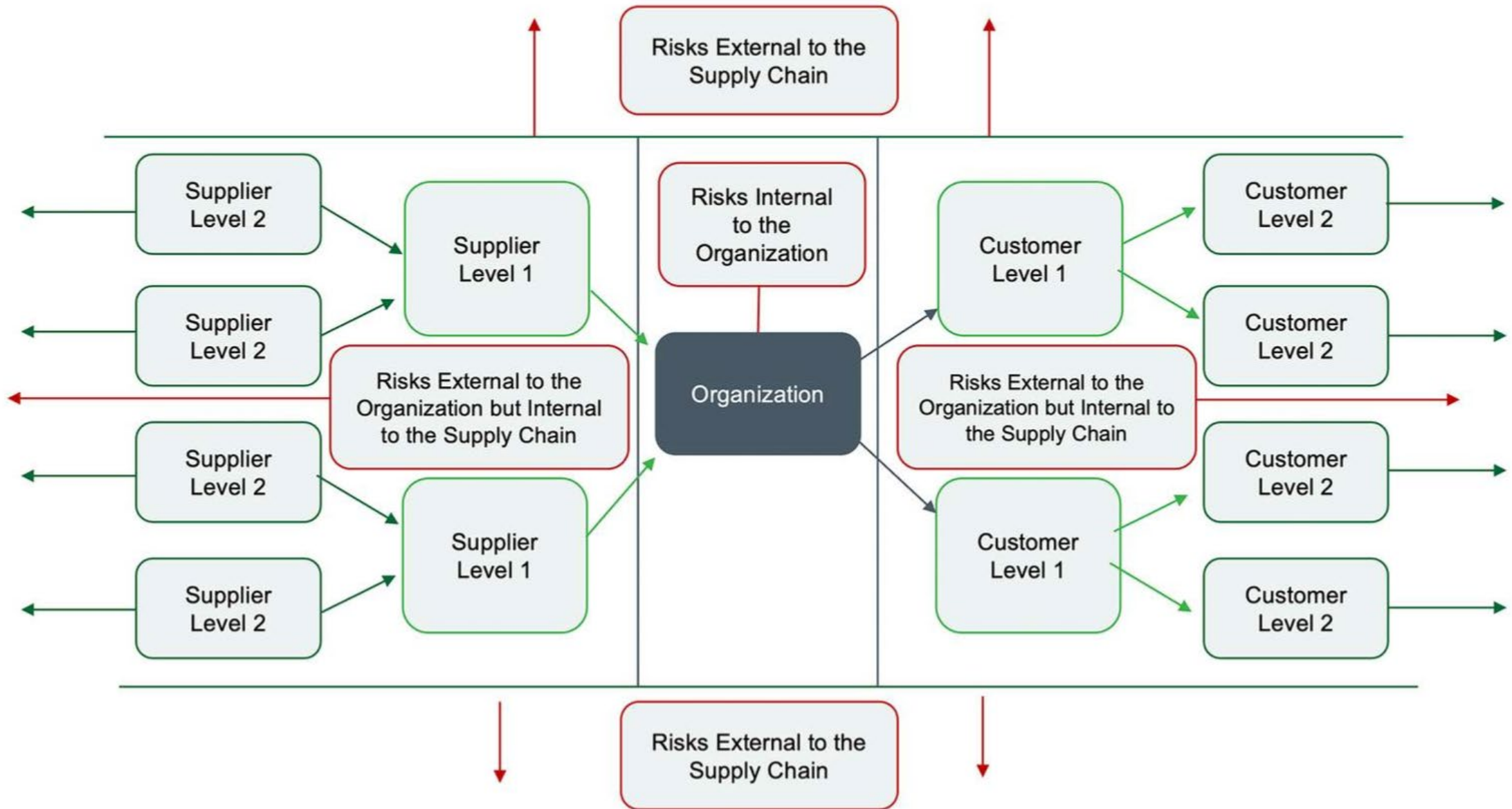
The ability of a supply chain to anticipate, create plans to avoid or mitigate, and/or to recover from disruptions to supply chain functionality (*ASCM Supply Chain Dictionary*).

## Key Components

- **Understanding risks.** An organization must first understand the risks that could cause disruptions or problems with its supply chain.
- **Designing, building, and managing resilience.** Proactively work to prepare for risks and build a maintainable supply chain, regardless of the risks

### Risk Locations in a Supply Chain

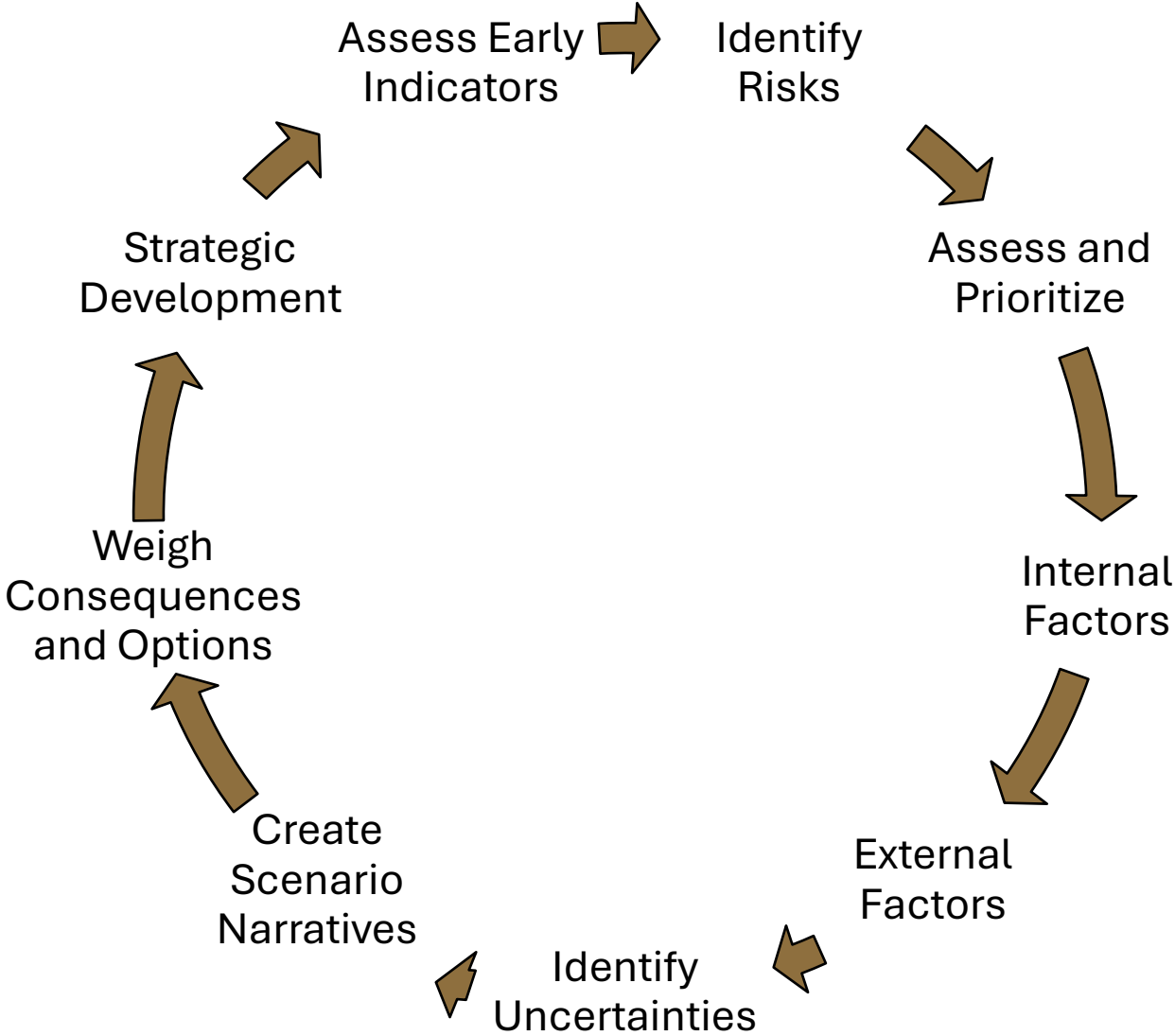




# Risk Management



**SUPPLY CHAIN  
RESILIENCE**



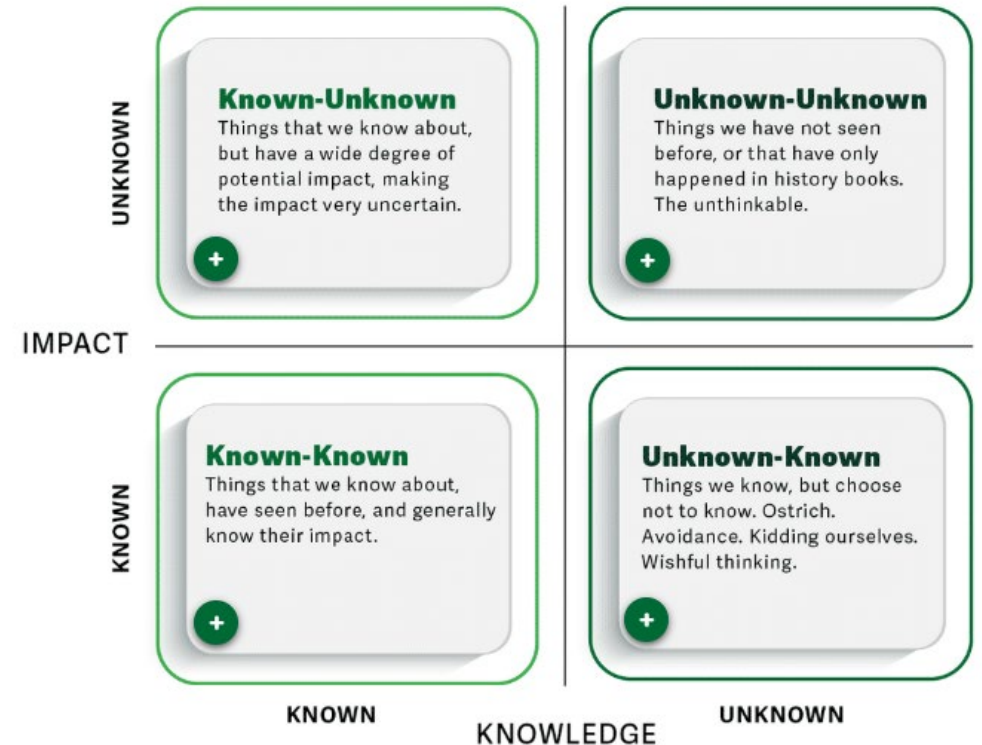
# Step 1: Risk Identification

# Step 1: Risk Identification

## Internal Risks

- Funds availability
- Product liability
- Equipment reliability
- Capacity reliability/flexibility
- Culture to overcome risks
- Management priorities
- Corruption and malicious acts
- Too much/too little inventory
- High labor costs
- Incorrect products

The Rumsfeld Matrix Degrees of Knowledge



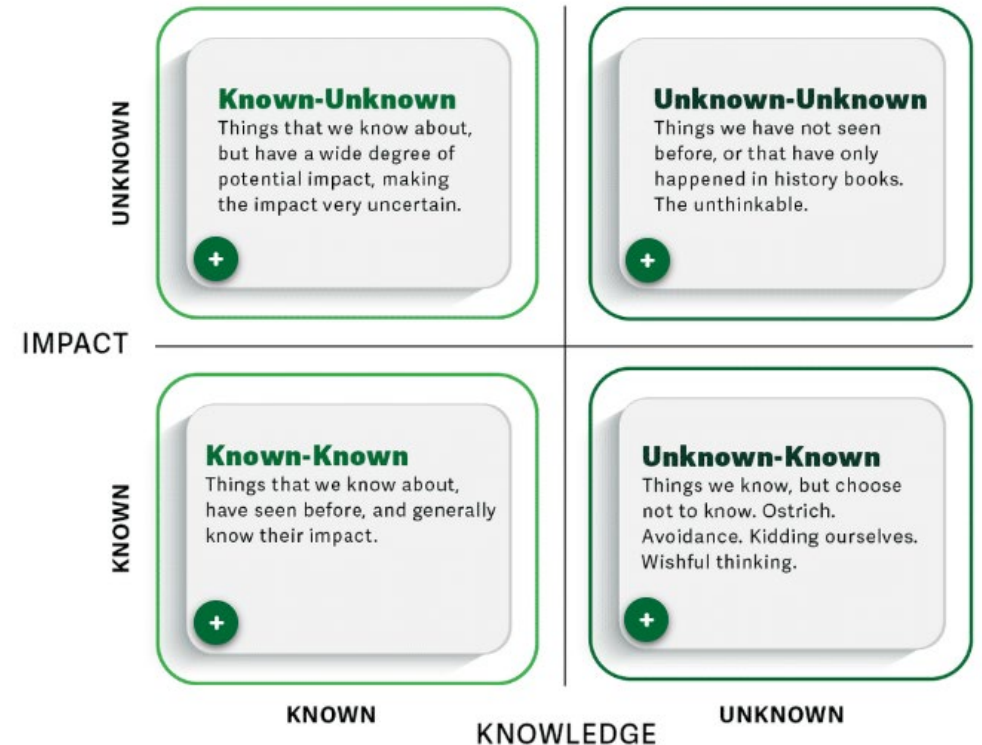
# Step 1: Risk Identification

## Political, Economic, Socio-cultural, Technical, Legal, and Environmental (PESTLE)

### External Risks

- Natural disasters
- Pandemics
- Supplier/customer landscape
- Logistics
- Economics
- Politics
- Terrorism
- Theft/piracy
- Illicit trade
- Cyber threats

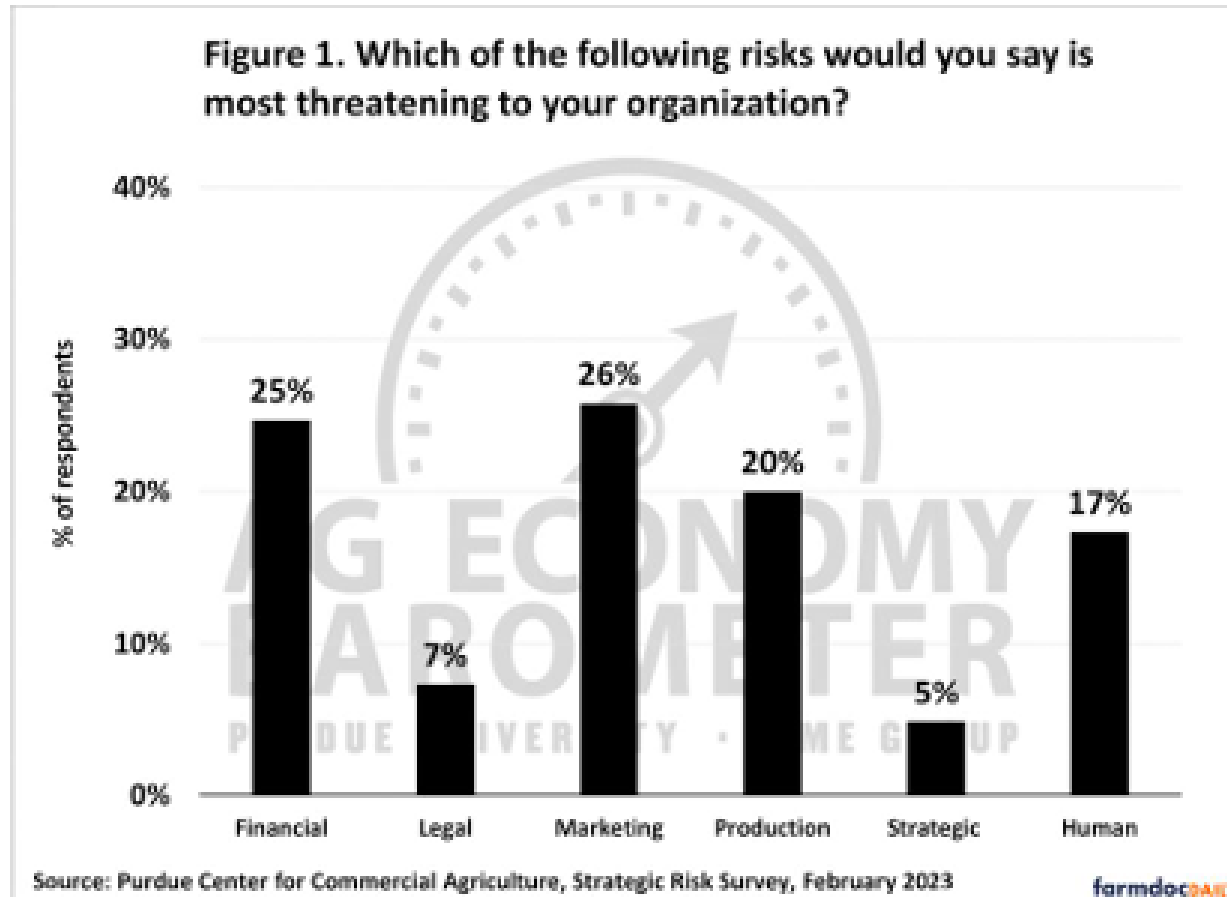
The Rumsfeld Matrix Degrees of Knowledge



# See Strategic Risk Assessment Tool



# Examples of Common Risks in Agribusiness



## farmdocDAILY

I Agricultural, Consumer & Environmental Sciences | University of Illinois Urbana-Champaign

Resilience to Strategic Risk

Margaret Lippsmeyer, Michael Langemeier, James Mintert, and Nathan Thompson

Center for Commercial Agriculture  
Purdue University

June 22, 2023

farmdoc daily (13): 115

# Step 2: Risk Assessment and Prioritization

# Step 2: Risk Assessment and Prioritization

- **Key Analysis Factors:**

- **Severity:** Potential impact of the event on the organization
- **Frequency:** Likelihood of the event occurring
- **Detectability:** Ability to identify the risk before it occurs

- **Analytical Methods:**

- **Quantitative Approaches:** Monte Carlo simulations, probability risk assessment
- **Qualitative Tools:** SWOT analysis, **risk matrix**

# Step 2: Risk Assessment and Prioritization

## •Likelihood Assessment:

- Ease of detection, frequency of occurrence, and overall probability
- Rare (1) to Highly Likely (5)

## •Impact Assessment:

- Severity of damage or disruption to the supply chain
- Negligible (1) to Very Severe (5)

<b>5: Very Severe</b>	Medium (5)	Medium high (10)	High (15)	Very high (20)	Very high (25)
<b>4: Severe</b>	Low (4)	Medium (8)	Medium high (12)	High (16)	Very high (20)
<b>3: Moderate</b>	Low (3)	Medium (6)	Medium (9)	Medium high (12)	High (15)
<b>2: Minor</b>	Low (2)	Low (4)	Medium (6)	Medium (8)	Medium high (10)
<b>1: Negligible</b>	Low (1)	Low (2)	Low (3)	Low (4)	Medium (5)
	<b>1: Rare</b>	<b>2: Unlikely</b>	<b>3: Possible</b>	<b>4: Likely</b>	<b>5: Highly likely</b>

$$\text{Risk Score} = \text{Likelihood} \times \text{Impact}$$

# Step 3: Identify Key Internal Factors

# 3. Identify key internal factors

What are the key factors that can affect/impact the focus area

Examples:

- Customer demand
- Suppliers' stability
- New competition
- New production technologies
- Logistics
- Routing
- Warehousing

# Step 4: Identify Key External Factors

# 4. Identify key external factors

Looking outside the organization to the broader external forces, the next step is to identify the external factors with a potential to affect the focus area

Factors may include:

- Wars and regional conflicts
- Terrorism
- Geopolitical issues
- Economic factors
- Taxation
- Regulation
- Treaties



# Step 5: Identify Key Critical Uncertainties Factors

# 5. Identify critical uncertainties

Looking at all the key and external factors, the next step is to group, filter, and prioritize them to identify critical uncertainties

The criteria for prioritization are the impact potential to the focus area and the level of uncertainty

Those factors that have a large potential impact on the focus area and high probability will be critical uncertainties

# Step 6: Create Scenario Narratives

# 6. Create scenario narratives (What if stories)

Once the scenario combinations have been determined, a team will analyze and create narratives for the scenarios

The narrative tells the what-if story

- What if our primary suppliers can no longer deliver the quantities we need?
- What if the available suppliers charge a higher price?
- What if longer lead times and an extended supply chain result in delays?

# Step 7: Create Consequences and Options

# 7. Create Consequences and Options

Typically reveals supply chain bottlenecks

- Example: Our only suppliers of a key commodity might come from the same region, use the same shipping routes, and have a limited capacity for production

Formulate and catalog strategic options

- Identify strategies that work well across multiple scenarios
- Need for diversification of suppliers, alternate logistics routing, alternate storage through third-party logistics, and many other strategic options, etc?

# Option 1: Acceptance

**Risk acceptance** is the decision to take no action if:

- The **effect** is minimal
- The **cost** of mitigation outweighs the impact
- The **likelihood** of recurrence is low

• **Key Factors:**

- Aligns with the acceptable risk threshold set by the organization
- Minimal disruption or cost allows the organization to focus resources elsewhere

# Option 1: Acceptance Example

**Trade restrictions or tariffs reduce demand for a farm's products in key international markets, such as Mexico's ban on GMO corn imports**

- **Impact:** Moderate impact on revenue in the short term

**Solution:** No immediate action taken because the cost of shifting to new markets is high and the likelihood of the ban lasting long-term is uncertain

- **Acknowledge the risk**, but no significant action is taken
- The farm also monitors **trustworthy agricultural information** to stay informed in case something significant changes



# Option 2: Contingency

Contingency plans are actions taken after an identified risk occurs to minimize its impact

- Difference from Mitigation Plans:
  - **Mitigation Plans:** Aim to reduce the risk's likelihood or impact before it occurs
  - **Contingency Plans:** Focus on responding effectively after the risk materializes

Note: Contingency plans can only address identified risks, not unknown risks

# Option 2: Contingency Example

## Severe weather delays delivery of fertilizer during a critical planting window

- **Impact:** Significant risk of reduced yields if planting is delayed
- **Contingency Plan:**
  - Maintain **agreements** with multiple fertilizer suppliers
  - Arrange for **local backup suppliers** to deliver smaller quantities if primary shipments are delayed
  - Pre-purchase a portion of inputs ahead of time to mitigate short-term disruptions

**Outcome:** By diversifying suppliers and holding a buffer stock, the farm is prepared to respond quickly to weather-related delays

# Option 3: Avoidance

Choosing to avoid an activity entirely if the risks and mitigation costs outweigh the potential benefits

- **Key Considerations:**

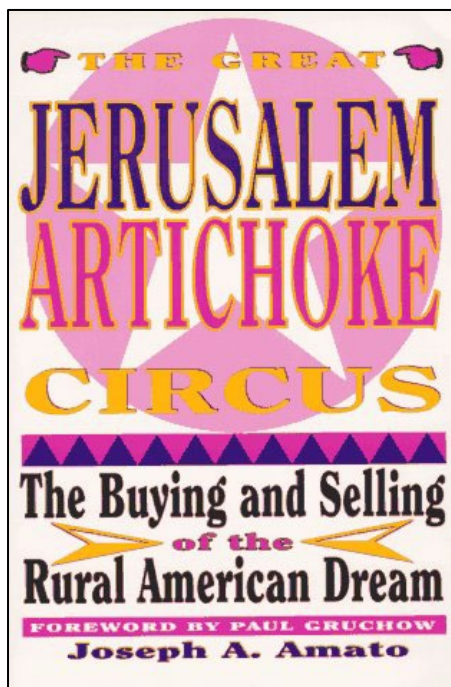
- Avoidance eliminates exposure to risks entirely
- Requires thorough cost-benefit analysis to justify the decision

# Option 3: Avoidance Example

*Review of Agricultural Economics—Volume 29, Number 2—Pages 286–305*  
DOI:10.1111/j.1467-9353.2007.00343.x

## Alpaca Lies? Speculative Bubbles in Agriculture: Why They Happen and How to Recognize Them

Tina L. Saitone and Richard J. Sexton



1. The asset itself and not its product is promoted.
2. Investors have unrealistic expectations regarding the market, including:
  - a) Potential for growth in sales of the product
  - b) The benefits that will be derived if such growth materializes
  - c) The prospects for and consequences of outside competition
3. Information is controlled through industry sources
4. Small-scale investors predominate
5. Biological or trade barriers to growth in the stock of the asset are present

# Option 4: Transfer

Transferring a portion or all of the risk to a third party.

- **Key Considerations:**

- Risks still exist but are managed externally.
- Cost of transfer (e.g., fees, premiums) must be weighed against benefits.

# Option 4: Transfer Example

- **Labor shortages during peak harvest season delay production and lead to financial losses**
  - **Transfer Strategy:**
    - Use third-party labor contractors to hire seasonal workers
    - Contractors assume responsibility for recruitment, training, and labor compliance
  - **Cost Consideration:**
    - Fees paid to contractors are weighed against the cost of delayed harvests or compliance risks
- Outcome:** The financial and legal risks of labor shortages are transferred to the third-party contractor

# Option 5: Sharing

Transferring a portion of the risk between parties.

- **Outcome:**

- Encourages collaboration and balances incentives for quality, timeliness, and sales.

# Option 5: Sharing Example

- A farmer and a grain buyer enter into a **forward contract** where the farmer agrees to produce and deliver a set quantity of grain at a predetermined price.
  - If the market price drops significantly, the buyer still pays the agreed price, protecting the farmer from losses.
  - If the market price rises, the buyer benefits by securing grain at a lower price.

Encourages collaboration and risk-sharing, ensuring stable income for the farmer and reliable supply for the buyer.

- **Farmer:** Reduces price volatility risk and ensures a guaranteed income.
- **Buyer:** Secures supply at a predictable cost, reducing exposure to market price spikes.
- **Shared Risk:** Both parties share the risk of price fluctuations, balancing incentives for production and purchase stability.



# Option 6: Diversification

## •Strategies:

- **Multiple Suppliers:** Reduce dependency on a single source
- **Multiple Locations:** Spread production to mitigate localized risks (e.g., power or network failures)

## •Benefits of Diversification:

- Reduces potential impact of a single event
- Enhances supply chain resilience and flexibility

## •Challenges:

- Increased complexity in managing suppliers and facilities
- Risk of quality variability across multiple suppliers
- Higher operational costs and potential introduction of new risks

# Option 6: Diversification Example

- A farm integrates **livestock production** (e.g., cattle or poultry) alongside **crop production** (e.g., corn or hay)

## Benefits:

- **Risk Mitigation:** Diversified revenue streams protect against market fluctuations in either enterprise
  - **Resource Efficiency:** Livestock manure reduces fertilizer costs, while crops provide feed, lowering overall expenses
  - **Stability:** If crop prices drop, livestock income provides a financial cushion, and vice versa
- Reduces financial vulnerability, enhances resource efficiency, and improves overall farm resilience to economic and environmental risks.

# Step 8: Strategy Development and Implementation

# Step 8: Strategy Development and Implementation

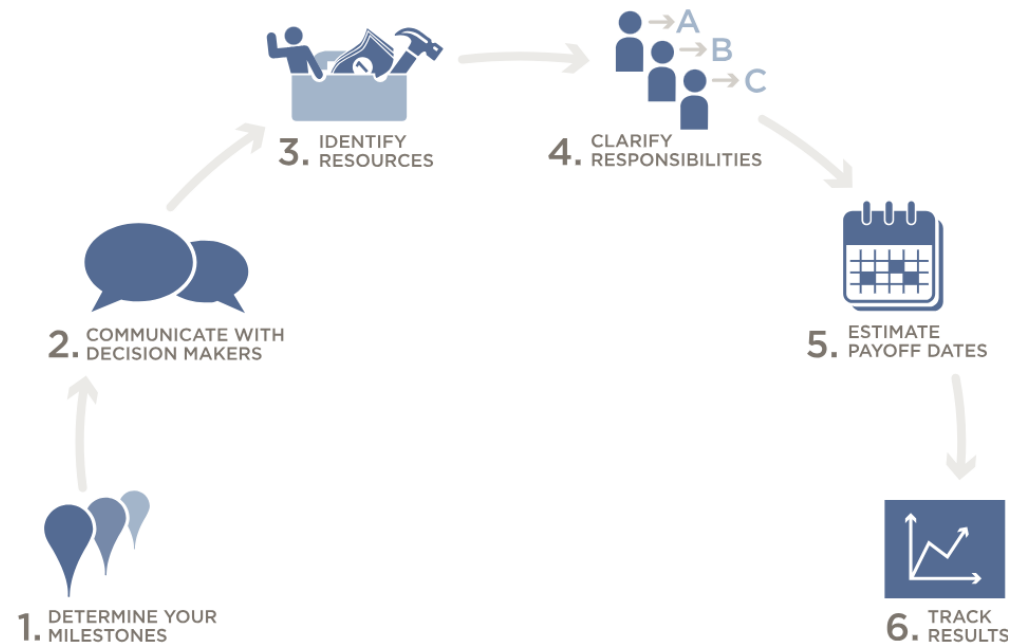
Reduce the risk's overall potential impact on operations and finances

Steps to reduce:

- Severity of the impact
- Frequency of occurrence
- Financial costs

**Preventative Plans:** Actions to avoid the risk entirely

**Contingency Plans:** Prepared responses if the risk occurs



# Step 8: Strategy Development and Implementation

## Build a Cross-Functional Risk Management Board

### •Responsibilities:

- Regularly assess prominent supply chain risks
- Decide on and oversee mitigation strategies
- Ensure actions are carried out within represented functions

### •Benefits:

- Promotes collaboration across departments
- Establishes a robust defense against supply chain risks

### RACI Matrix Example

Project Activity/Deliverable	Project Manager	Consultant	Architect	Contractor	Client
Define functional and aesthetic needs	I	I	C	I	R
Assess risk	A	R	I	C	I
Define performance requirements	A	R	I	I	I
Create design	A	C	R	I	C
Execute construction	A	C	C	R	I
Approve construction work	I	I	C	C	R

**Responsible:** The individual(s) with responsibility for the task or deliverable is typically responsible for developing and completing the project deliverables themselves.

**Accountable:** The accountable party ensures accountability to project deadlines, and ultimately, accountability to project completion.

**Consulted:** Consulted individuals' opinions need to be considered at every step of the process, their input helps guide the course of the project itself.

**Informed:** Informed persons are those that need to stay in the loop of communication throughout the project.

# Step 8: Strategy Development and Implementation

- Establishing a risk-aware culture within the organization and across the supply chain
- **Training Programs:**
  - Equip individuals with skills to identify and respond to risks
  - Reinforce defenses against unforeseen threats
- **Benefits:**
  - Encourages open communication about potential issues
  - Signals that addressing risks proactively is encouraged
  - Ensures swift response to emerging threats



# Step 9: Monitor Early Indications

# 9. Monitor Early Indications

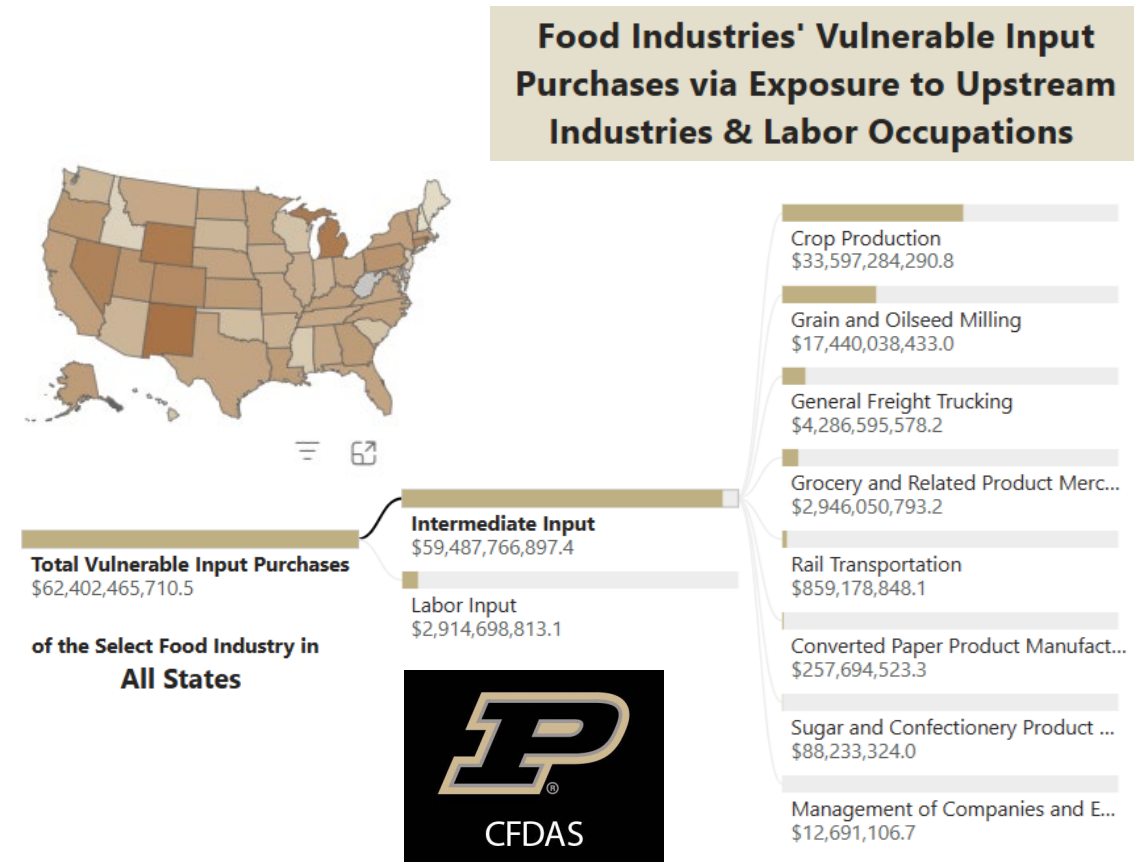
Identify and monitor the real-world conditions that might indicate a particular scenario is beginning to play out

Stay Proactive in Risk Management

- Regularly update, analyze, and prioritize the risk list as circumstances evolve
- Address newly identified risks promptly

Post-Risk Analysis

- Evaluate the effectiveness of mitigation and contingency plans





# Strategic Positioning

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