

# Managing and Monitoring a Growing Production Agriculture Firm: Part II

AAPEX

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*Last night I played a blank tape at full blast. The mime next door went nuts.*

Stephen Wright

## Our Agenda

- A look at the core management functions and competencies
- Strategic Positioning – are we close to a tipping point?
- Incorporating some basic strategy frameworks in your operation
- Strategy and Uncertainty – Tools for thought

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## Framework for Discussions – Past, Present, and Future



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## Topics on the Wheel

- Past
  - Leadership, Org Structure
  - Opportunity Assessment (managing growth)
  - Strategy
  - Value Chain Development
- Present
  - Strategic Positioning
  - Understanding Risk
- Future
  - A Framework for Benchmarking – Getting the Costs Right
  - Evaluating Growth Opportunities
  - Value Chain Development Strategies
  - Innovation

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## Strategic Positioning

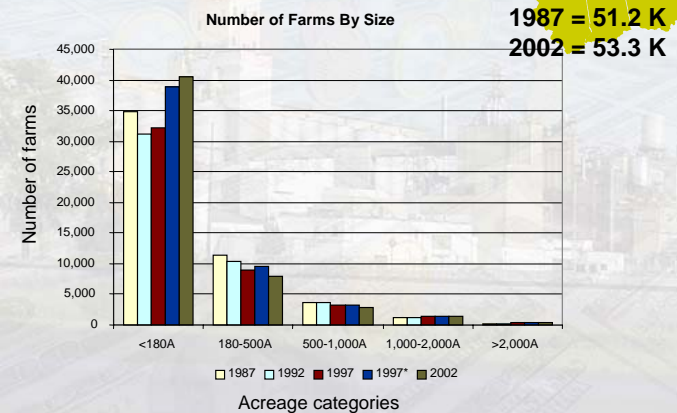
## Strategic Positioning – A Review of Tools

- Industry structure, behavior and driving forces for change should be understood for effective positioning
- Hard to know where to go if you don't know where you are starting from
- Two tools to think about strategic positioning and strategy alternatives:
  - Porter's Five (Seven) Forces
  - The Reverse Bullseye

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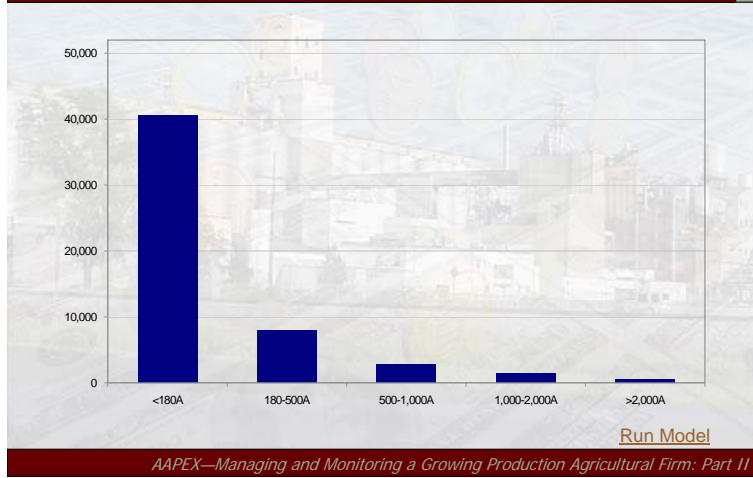
## A Quick Look at Structural Change

## Change in Michigan Farm Numbers; 1987 - 2002

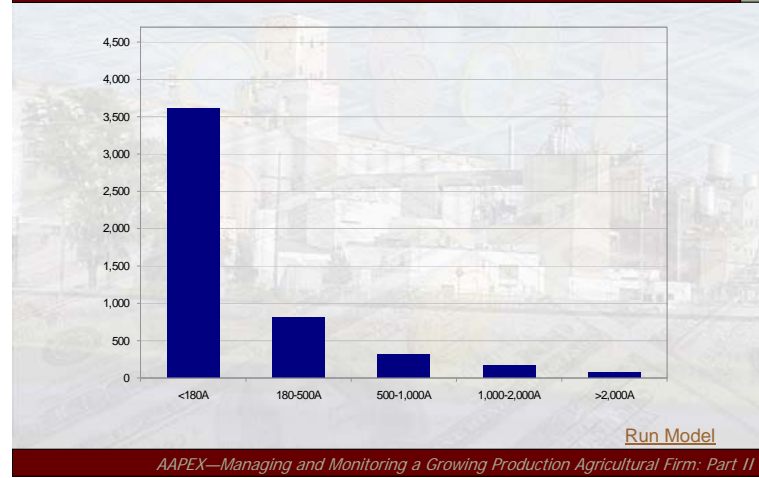


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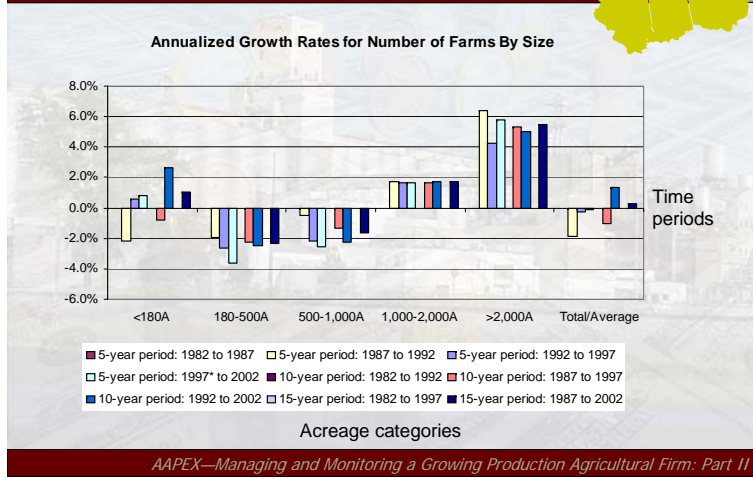
### What If..... Michigan from 2002 to 2017, Farms by Size, 2002



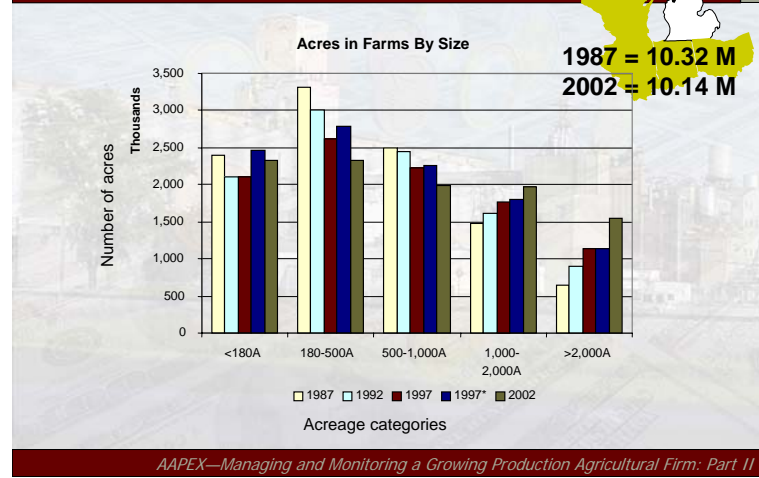
### Farms by Size, 2002 Michigan 5 County



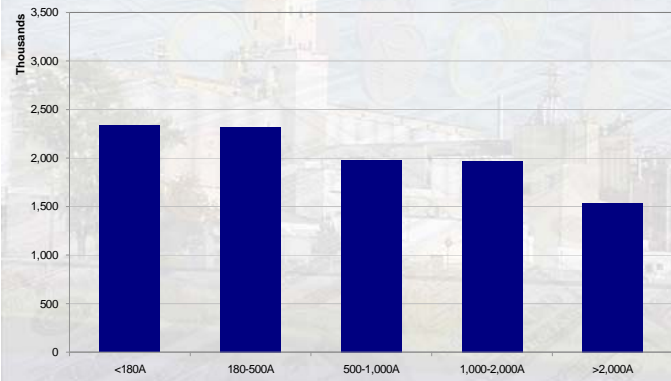
### Annual Growth Rates; Farm Numbers; Michigan; 1987 thru 2002



### Change in Michigan Acreage Controlled; 1987 - 2002



### What If.....Michigan from 2002 to 2017, Acres by Size, 2002

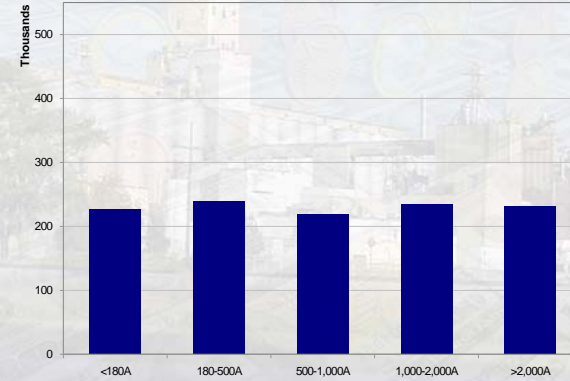


Run Model

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### Acres by Size, 2002

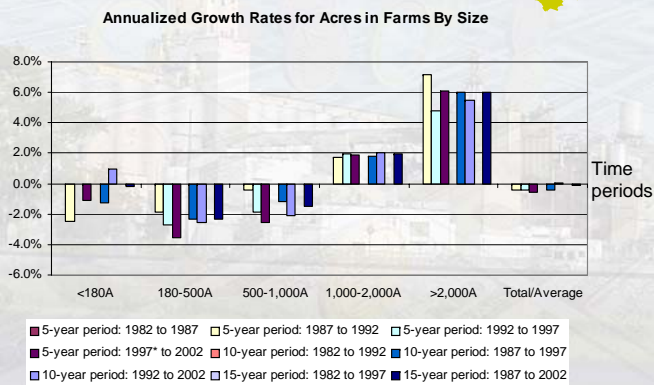
Michigan 5 County



Run Model

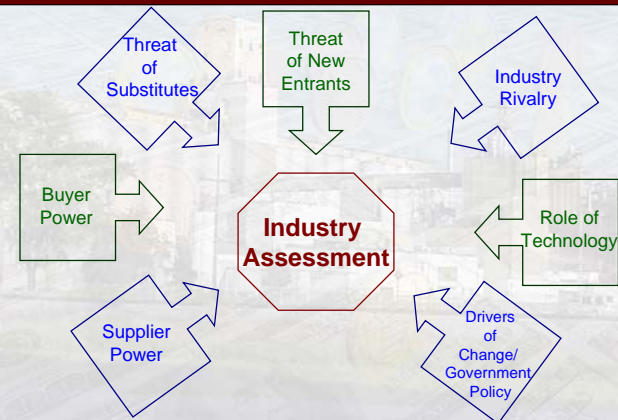
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### Annual Growth Rates; Acreage Controlled; Michigan; 1987 thru 2002



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### Seven Industry Forces\*

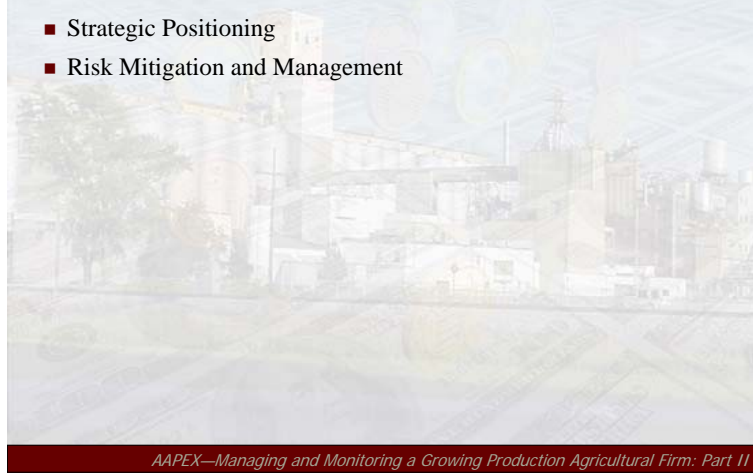


\* Adapted from Michael Porter's Five Forces

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## How Does a Firm Respond to These Forces?

- Strategic Positioning
- Risk Mitigation and Management

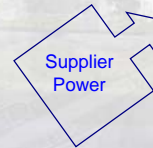


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## Seven Industry Forces\*

**What is Supplier Power?**  
The bargaining power exerted by any of the sources for inputs; applies pressure to margins and volume

- What influences Supplier Power?**
- Supplier concentration
  - Importance of volume to supplier
  - Impacts of inputs on cost or differentiation
  - Switching costs of firms in the industry
  - Presence of substitute inputs
  - Threat of forward integration
  - Cost relative to total purchases in industry



**What risk implications does Supplier Power have?**  
Higher supplier bargaining power could decrease input options and put pressure on margins for participants, thus increasing risk

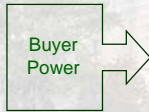
\* Adapted from Michael Porter's Five Forces

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## Seven Industry Forces\*

**What is Buyer Power?**  
The bargaining power exerted by customers; applies pressure to margins and volume

- What influences Buyer Power?**
- Bargaining leverage
  - Buyer volume
  - Buyer information
  - Brand identity
  - Price sensitivity
  - Threat of backward integration
  - Product differentiation
  - Buyer vs industry concentration
  - Substitutes available
  - Buyers' incentives
  - External markets



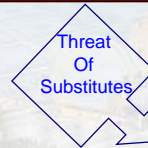
**What risk implications does Buyer Power have?**  
Higher buyer bargaining power could decrease production and product options, increase pressure for higher quality or services, and apply pressure on margins for participants, thus increasing risk

\* Adapted from Michael Porter's Five Forces

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## Seven Industry Forces\*

**What is Threat of Substitutes?**  
Substitutes are alternative products with lower prices and better performance parameters for the same purpose; also relates to complementary products; can be measured by price elasticity; threat stems from the competition of these substitutes



- What influences Threat of Substitutes?**
- Switching costs
  - Buyer inclination to switch
  - Price-performance trade-offs of substitutes
  - Potential for significant change in demand due to consumption fads or trends

**What risk implications does Threat of Substitutes have?**  
Significant threat of substitutes could apply pressure of participants to maintain or lower price levels, thus probably lowering profitability

\* Adapted from Michael Porter's Five Forces

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## Seven Industry Forces\*

### What is Threat of New Entrants?

New entrants are firms entering the market for the first time to provide similar products or services

Threat Of New Entrants

### What influences Threat of New Entrants?

- Barriers to entry
  - Economies of scale
  - Absolute cost advantages
  - Proprietary learning curve
  - Access to inputs and distribution
  - Government policy
  - Capital requirements / asset specificity
  - Brand identity
  - Start-up and switching costs
  - Expected retaliation
  - Patents and proprietary products
- Reaction from existing companies

### What risk implications does Threat of New Entrants have?

- High barriers to entry create a less competitive environment
- Low barriers indicate a competitive, commodity type market

\* Adapted from Michael Porter's Five Forces

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## Seven Industry Forces\*

### What is Industry Rivalry?

The intensity of competition among existing companies; can be measured by concentration.

Industry Rivalry

### What influences Industry Rivalry?

- High exit barriers
- Industry concentration
- High fixed or storage costs
- Slow industry growth
- Intermittent overcapacity
- Lack of differentiation or switching costs
- Brand identity
- Diversity of rivals
- High corporate or strategic stakes

### What risk implications does Industry Rivalry have?

Intense industry rivalry creates pressure on prices, margins, and hence, profitability on all participants; intense rivalry could increase risk

\* Adapted from Michael Porter's Five Forces

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## Seven Industry Forces\*

### What influences the Role of Technology?

- Expected lifespan or turnover of technology
- Degree to which technology impacts industry
  - Products and services offered
  - Production process and costs
  - Distribution of products and delivery of services
  - Marketing and sales
- Adoption rate of technology in industry
- Whether firm is user or provider of technology

### What is the Role of Technology?

The impact technology plays in the production of and demand for the service or product.

Role of Technology

### What risk implications does the Role of Technology have?

Technology can negatively or positively impact risk. The greater the role technology plays in the industry, the greater the opportunity for increased efficiencies, but also the greater the speed at which processes change.

\* Adapted from Michael Porter's Five Forces

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## Seven Industry Forces\*

### What influence the Drivers of Change?

- The manner in which the driving forces are currently impacting the industry
- Scope of their influence
- Expected timeframe of driving forces' impact
- Anticipated end result of driving force

### What are the Drivers of Change?

The number and dimensions of forces imposing change on the industry.

Drivers Of Change

### What risk implications do the Drivers of Change have?

Sustainable, wide-reaching, and/or unpredictable drivers can create more industry-level risk  
Government policy changes?  
Structural change?

\* Adapted from Michael Porter's Five Forces

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## Industry Forces Impact on Risk

Industry Force	Level	Impact on Risk
Supplier Power	High	Greater
Buyer Power	High	Greater
Threat of Substitutes	Numerous	Greater
Threat of New Entrants	Numerous	Greater
Industry Rivalry	High	Greater
Role of Technology	Significant	Depends on industry
Drivers of Change	Number, sustainable	Greater

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## Generic Strategies\*

- **Overall cost leadership** – accomplished through a set of functional policies aimed at this objective
- **Differentiation** – creation of a service or product that is unique industry-wide
- **Focus** – targeting a particular buyer group, product line segment or geographic market

\* Adapted from Michael Porter's *Competitive Strategy*

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## Industry Risk Analysis Template

Level	High	5							
		4							
	Moderate	3							
		2							
	Low	1							
			Supplier Power	Buyer Power	Threat of Substitutes	Threat of New Entrants	Industry Rivalry	Role of Technology	Drivers of Change
			Industry Force						

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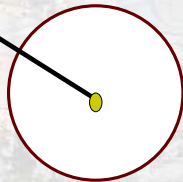
## Strategic Positioning for Competitive Advantage

- Positioning Alternatives
  - Product innovation
  - Value chain innovation
  - Operational excellence
  - Customer intimacy
- Levels of Performance/Emphasis
  - Competitive threshold
  - Sustainable competitive advantage

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## Strategic Positioning

Product  
Innovation

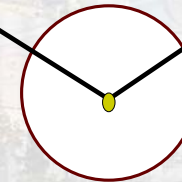


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## Strategic Positioning

Product  
Innovation

Process/Value Chain  
Innovation



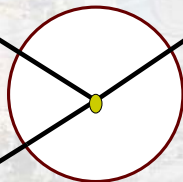
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## Strategic Positioning

Product  
Innovation

Process/Value Chain  
Innovation

Operational  
Excellence



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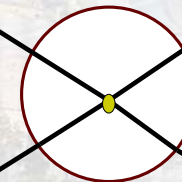
## Strategic Positioning

Product  
Innovation

Process/Value Chain  
Innovation

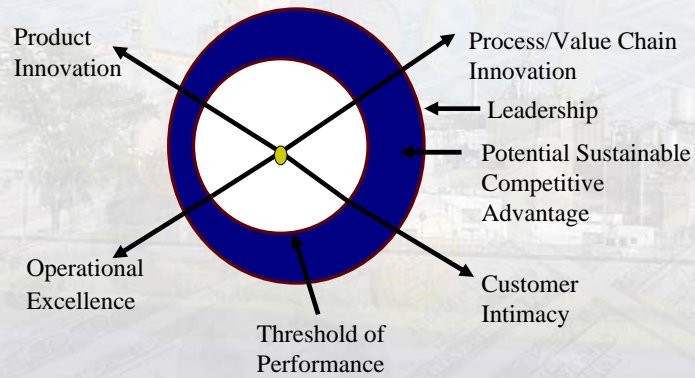
Operational  
Excellence

Customer  
Intimacy



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## Strategic Positioning



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## What are the Challenges?

- How would you describe your positioning approach?
- What are you doing to implement?

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## Strategy in Turbulent Times

## Uncertainty Issues for Discussion

- Positioning for surprises
- Perspectives on risk and uncertainty
- Sources of surprises (risk and uncertainty)
- Assessment tools
- A decision model
- Options thinking

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## Positioning for Surprises

- Pork prices/restructuring – 90's
- BSE in beef
- Financial stress/land value decline of 80's
- Low interest rates of 2000's
- High corn/soybean prices of 2004
- Demand for specialty crops/organics
- Change in government programs – 2002 and 2007
- Higher energy prices
- Automation/simplification technology (auto steer)
- New traceability regulations

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## Perspectives (Attitudes)

- Exposure/loss
- Opportunity/gain
- Lender vs. entrepreneur conflict
- Risk-reward trade off
- Managing risk
- Options thinking

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## Time and Uncertainty

- Timing
  - Timing of decisions—first mover, fast follower
  - Sequencing of decisions
  - New information
  - Learning
- Dynamic uncertainty
  - Frequency and amplitude
  - Random fluctuations
  - Sequential fluctuations

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## Dynamic Uncertainty

- Random Fluctuations (Amplitude)



- Sequential Fluctuations (Frequency)



→ Staying Power ←

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## Understanding (Your) Firm Level Risk

## Key Risk Parameters (Sources of Surprises)

- Business risk – the risk associated with the operations of the firm
  - Operational risk
  - Strategic risk
- Financial risk – the risk associated with the financial and investment aspects of the firm
- Market risk – the risk associated with the input and output markets of the firm

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## Sources of Operational Business Risk

Parameter	Sources
Technology	Chemical, mechanical, biological technology; complexity, obsolescence, workforce skill-set; ability to adopt; rate of change and innovation; role of biotechnology
Relationship	Includes relationships with landlords, lenders, customers (credit risk); suppliers; alliances; partnerships (interdependency, confidentiality, cultural conflict, contractual risks)
Legal/regulatory	Liability for accidents/injury, employee termination and environmental damage; compliance w/ regulations; issues related to urban encroachment; changes in regulations; appropriate licensing, jurisdiction and reporting
Human	Death, illness, disease impact on labor availability/performance; workforce availability; employee performance; adequate staffing; adequate training
Production	Weather, biological pests, disease, climatic variability; management; spoilage/shrinkage; operations and business practices (e.g., pesticide or antibiotic use); fire, weather, theft
Distribution systems and channels	Transportation, service availability, cost, dependence on distributors

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## Sources of Strategic Business Risk

Parameter	Sources
Strategic position and flexibility	Mergers and acquisitions, joint ventures and alliances, resource allocation and planning, organizational agility
Marketing, reputation and image	Company image, brands, reputations of key employees; production practices; product liability, market timing, customer support
Competitive conditions	Market share, pricing wars, industrial espionage, antitrust
Governmental trade and farm policy	U.S. Farm Bill (policy); GATT; trade-related issues

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## Sources of Financial Risk

Parameter	Sources
Interest rate	Interest rates on debt and income-generating assets
Financial structure	Debt servicing capacity, leverage, debt structure, liquidity, solvency, profitability; financing and financial (debt vs. equity) structure; financial instruments; cost structure

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## Sources of Market Risk

Parameter	Sources
Input and output product prices	Price levels and volatility; input product availability; output product premiums or discounts; output product basis
Contract terms, delivery and payment	Delivery delay; buyer default; terms of trade
Market outlets and access	Number of markets and ease of which products can be marketed

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## A Look at Exposure and Opportunity

- Row Crop
- Vegetables
- Dairy
- Meat Livestock
- Input Supply
  
- Pick Either Exposure or Opportunity and Discuss
  - Major Types
  - Probability of Impact
  - Size
  - Mitigation/Capturing Actions

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## Opportunity/Exposure Assessment

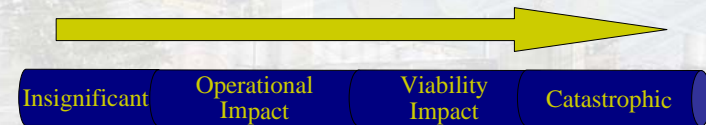
Exposures			
Type/Source Of Uncertainty	Chances/Odds	Size of Exposure	Mitigation Actions
Opportunities			
Type/Source Of Uncertainty	Chances/Odds	Size of Opportunity	Capturing Actions

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## Assessing Risk and Uncertainty

## Evaluating Risk Factors

Increasing Size of Adverse Consequence (Loss)



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## Risk Scorecarding

## Dimensions of Risk Scorecard

- Two dimensions:
  - The probability or **chance** a risk event would occur
  - The **consequence** on the business if the risk event occurred
- Risk factors are rated on a scale of one to five for the **chance** and **consequence** of risk events occurring

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## Risk Management Matrix

- Matrix classifies the risks based on their scores into four risk management categories:

- Retain
- Avoid
- Transfer/Share
- Reduce

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## Four Risk Management Strategies

- Retain
  - The consequence of loss to the firm is low; the firm can absorb loss without adverse consequences, and the risk can be held within the organization
- Transfer/Share
  - The chance of loss is minimal but the consequence is large; the firm cannot absorb loss without adverse consequences; therefore, the risk should be transferred or shared with others
- Reduce
  - The chance and consequence of a loss are moderate; the firm needs to decrease either the chance and/or consequence of the risk, therefore, decreasing its loss exposure
- Avoid
  - The chance and consequence of a loss are high; therefore, the firm should take action to avoid the chance and/or consequence of the event occurring

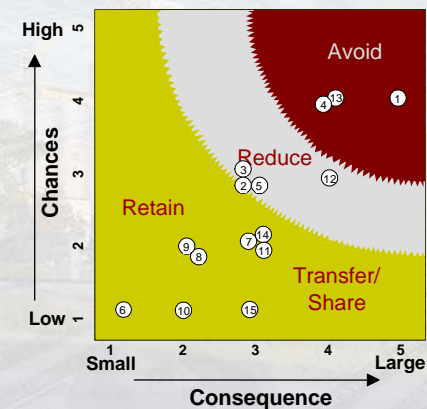
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## Daisy Dairy — Example Risk Scorecard

	Severity	
	Chances	Consequences
<b>Business - Operational</b>		
1. Technology	4	5
2. Relationship	3	3
3. Legal/regulatory	3	3
4. Human	4	4
5. Production (including casualty)	3	3
6. Distribution systems and channels	1	1
<b>Business - Strategic</b>		
7. Strategic position and flexibility	2	3
8. Marketing, reputation and image	2	2
9. Competitive conditions	2	2
10. Governmental trade and farm policy	1	2
<b>Financial</b>		
11. Interest rate	2	3
12. Financial structure	3	4
<b>Market</b>		
13. Input and product prices	4	4
14. Contract terms, delivery and payment	2	3
15. Market outlets and access	1	3

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## Daisy Dairy — Example Risk Management Matrix



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## Final Comments

- Build your strategy based on ongoing industry/competitive assessment
  - Understand how to evaluate risk position – for you and your competitors. Monitor it on an ongoing basis
  - Risk encompasses opportunity and exposure – think about both
  - You CAN think about strategy in times of uncertainty – it just takes more thought and analysis
  - Always consider real options-based strategies as you think about managing new opportunities with significant uncertainty
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