

Economic Considerations For Value Chains and Supply Chain Alliances in Alberta

Executive Summary

This project examines some of the constraints to growth for value chains and supply chain alliances in the Alberta cattle industry. Theoretical evidence suggests that producers may be able to extract consumer surplus from the marketplace through the discriminatory pricing of cattle and beef products with a higher deemed value or perceived quality attributes. Historical information suggests that the open market has quickly transferred previous price and value information for high 'AAA' grading product into the hands of primary producers. In the 1990s, ranchers and feedlot operators responded to 'AAA' premiums with altered genetics and production systems to increase supply. The increased supply has transformed a previously high valued market into a market with commodity like characteristics.

The high elasticity of demand for new high value products leaves the value chains and supply chain alliances vulnerable to rapid loss of premium when global supplies for the product increase. Among other constraints to future development are high financial risk levels, and high processing and production costs. Return uncertainty and high costs were found to be major limitations at the primary producer level. Lack of price and margin transparency throughout the supply and processing chain also contributed to uncertain producer returns.

In addition to the growth constraints, several opportunities for advancement were identified. One of the opportunities was the potential grow the Alberta brand as a globally recognized high value brand with value characteristics that are not easy copied or exploited by other suppliers. Improvements in Alberta trace-back systems may also facilitate a faster transfer of value and cost of production information back through the supply chain. Thus, genetic improvements to the Alberta herd may occur at a faster rate.

The final segment of this project suggests a methodology and tools that producers can use in determining price, value and production costs. A comparative production cost table outlines the premium returns required by producers to sell profitably in two hypothetical alternative markets. As well, a value based marketing or grid calculation example is included. By using these tools and methodologies, it is hoped that producers can enter into new alliances or value chains with increased comfort and a lower level of business risk.

This project also makes a few general recommendations that may be worth considering by value chain and alliance participants. Improved research, development, and information transfer to primary producers was deemed to be very important. Other suggestions include the consideration of mandatory price reporting to assist in improving the transparency of price and margin information. The need for a central information source for reputable retail market development expertise was also suggested.

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Choices For Consumers Conference

March 20, 2007

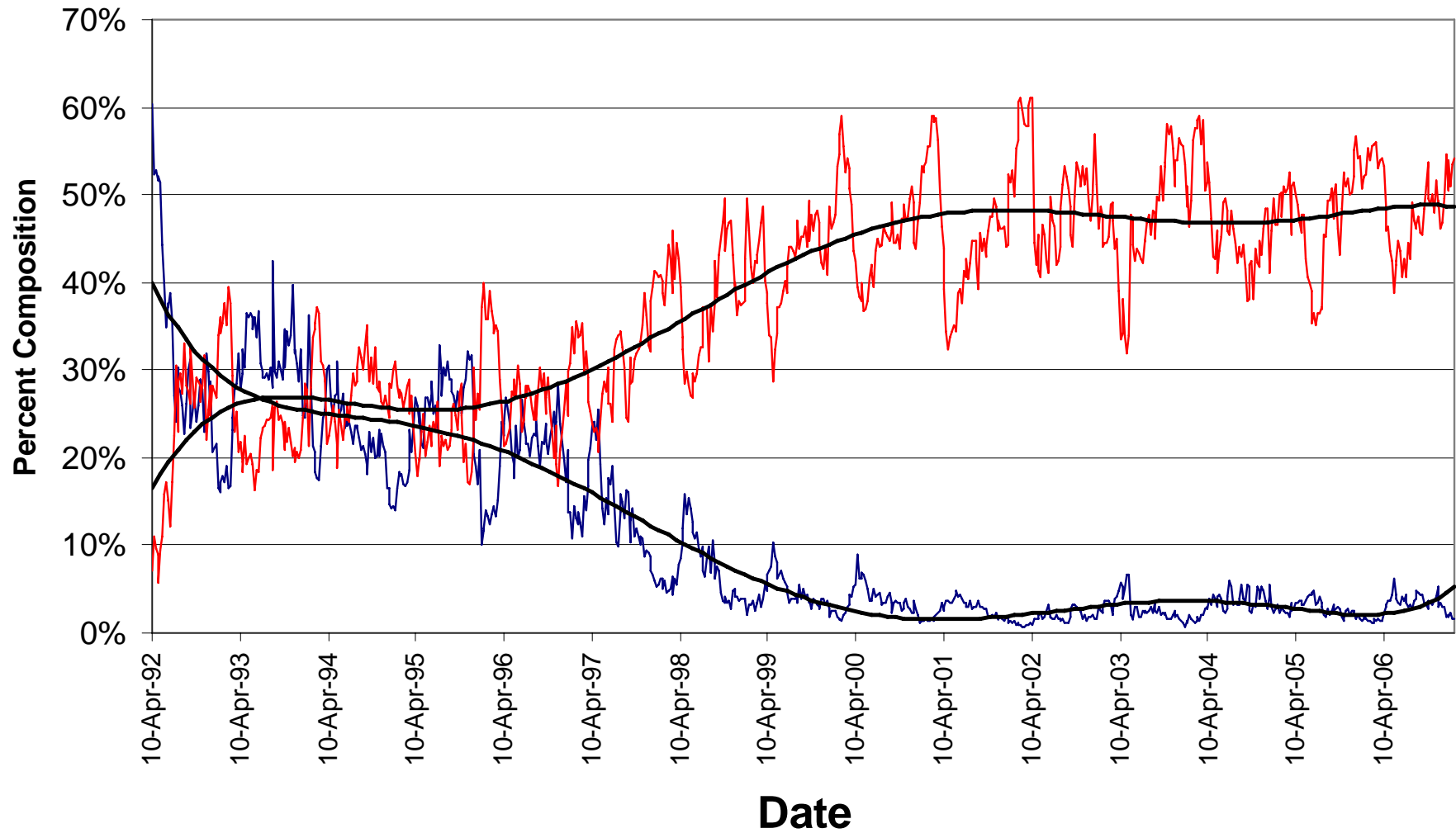
Presentation Overview

- Look back at VBM in the 1990s
- Demand Theory
- Investigation Findings
- Production Costs and Revenue
- Conclusions
- Discussion

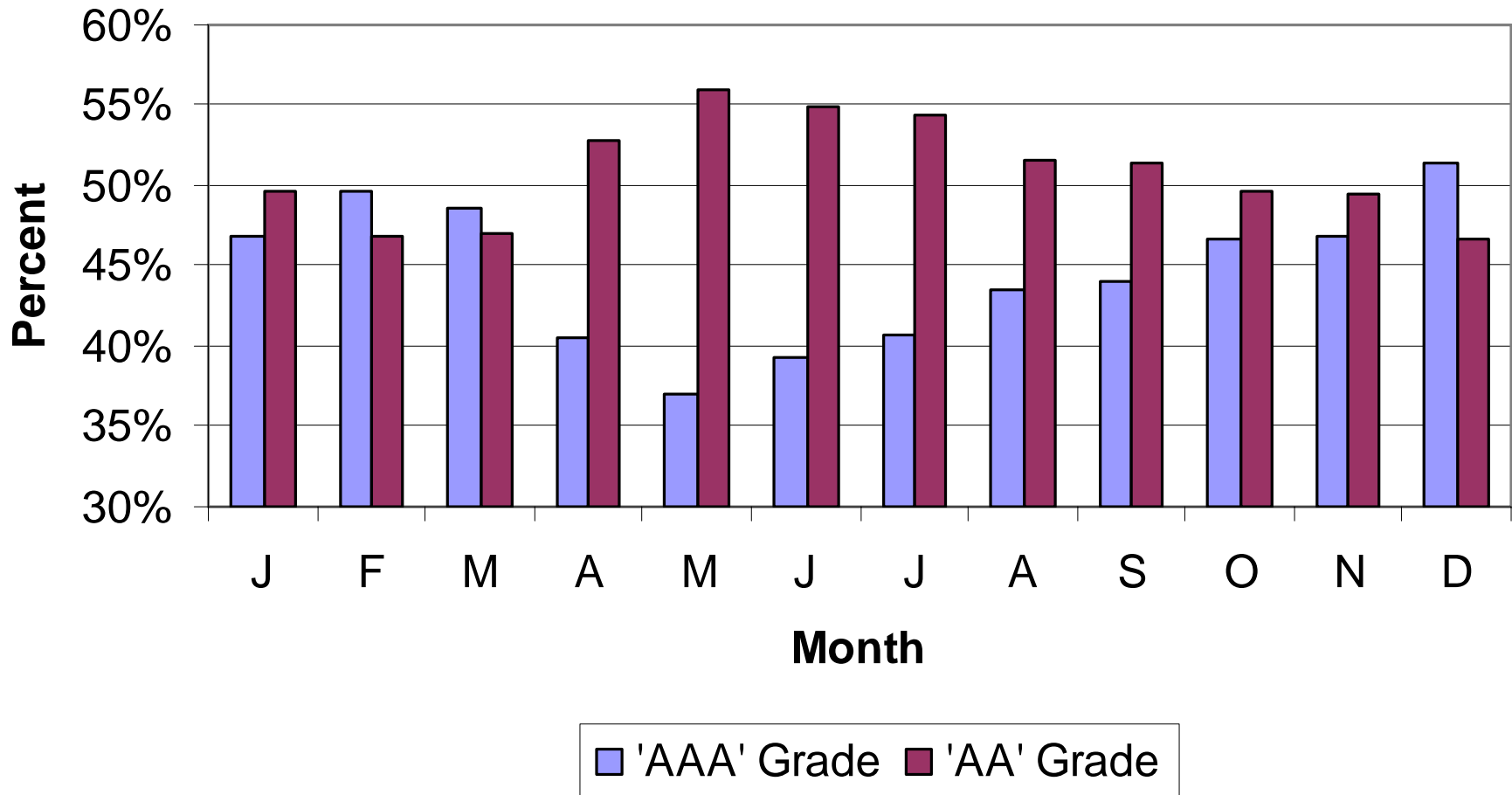
Trends

- 1990s – Period of Rapid Growth
 - Competitive Advantage in Alberta
 - Development of US Export market
 - Advent of Value Based (Grid Marketing)
 - Price premiums paid for ‘AAA’
 - R&D into Branded Beef products
- 2000s
 - Loss of competitiveness

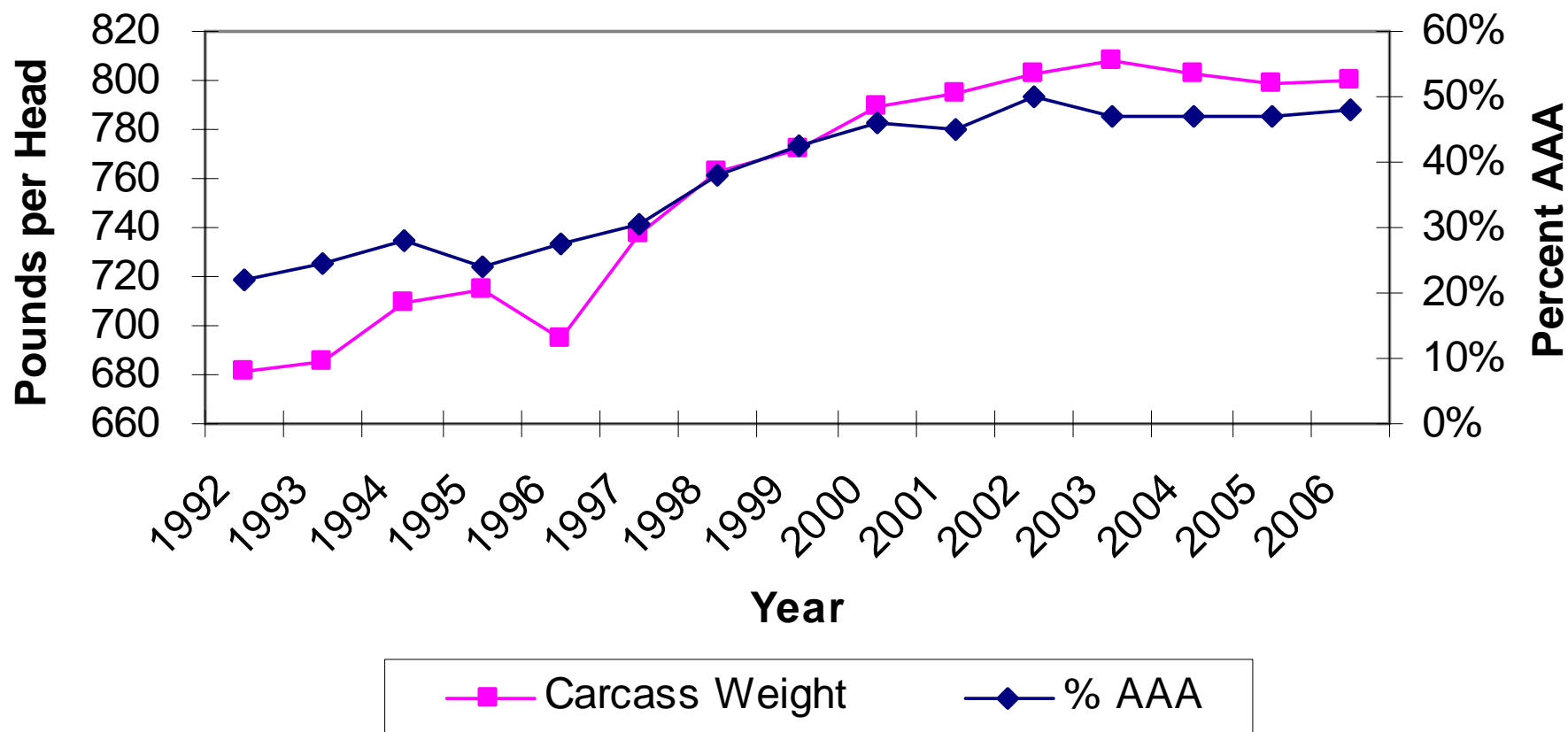
Percent 'A' vs 'AAA' Grades



10 Year Seasonal Grading

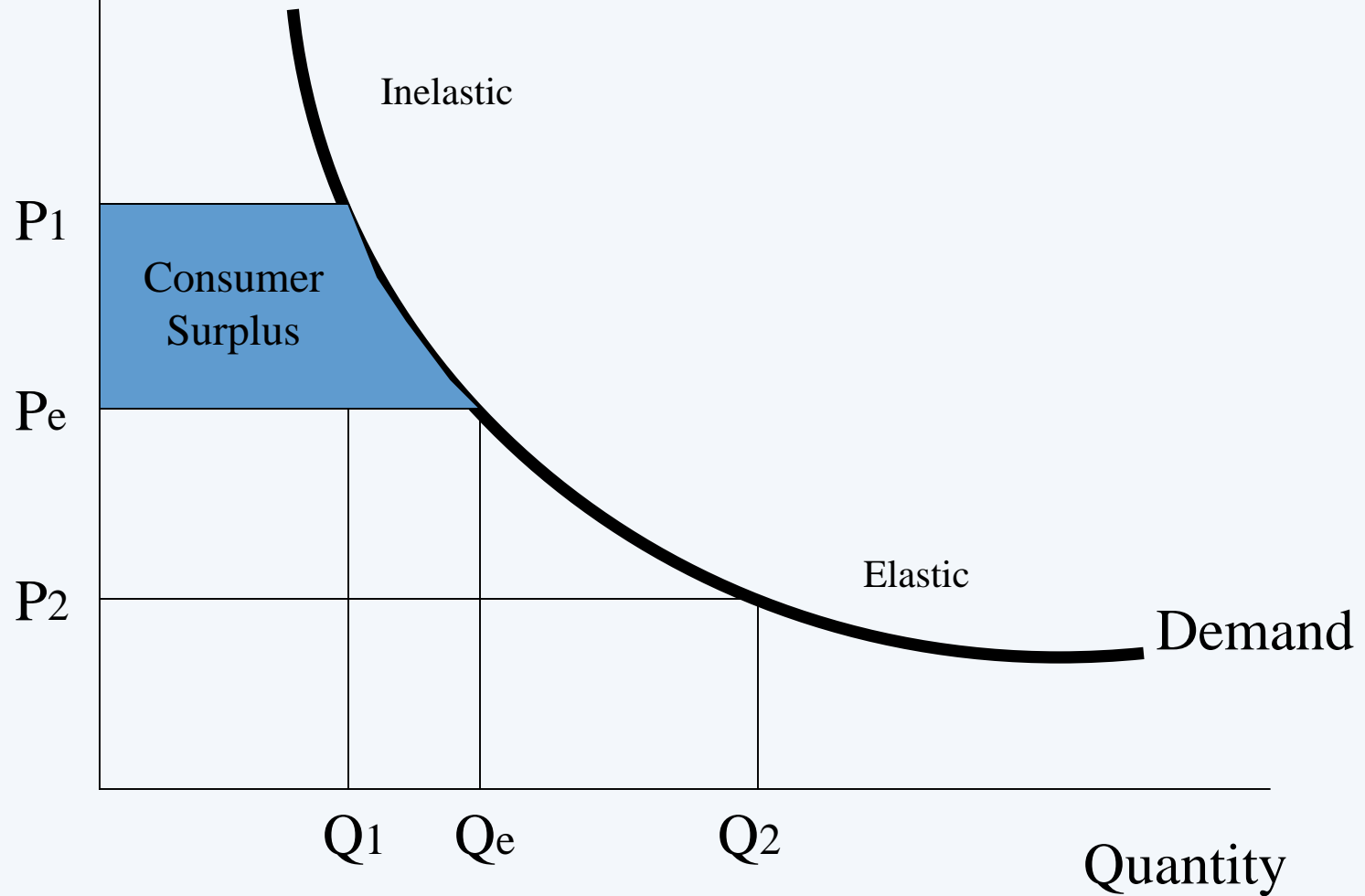


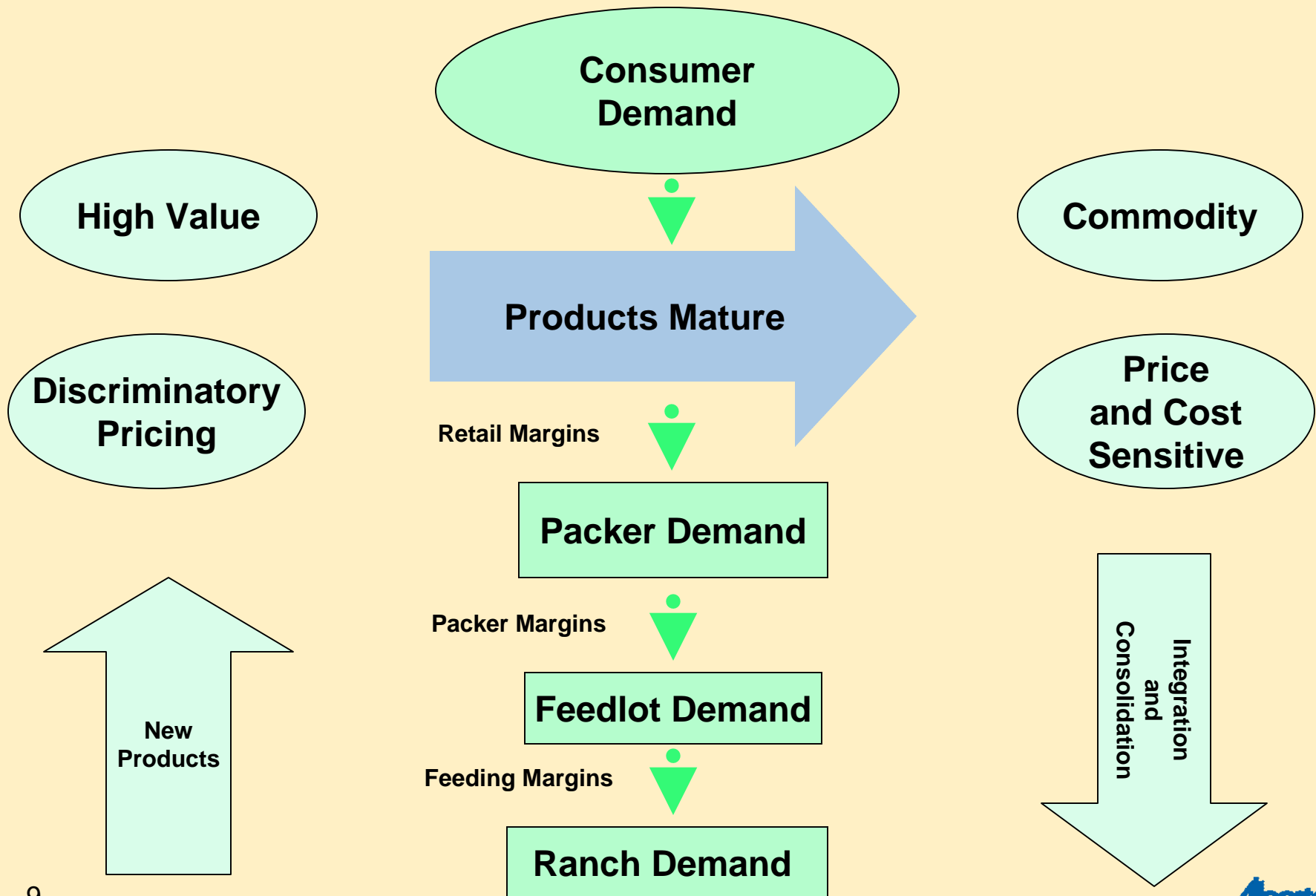
Carcass Grading and Weight Trends



Unit Price

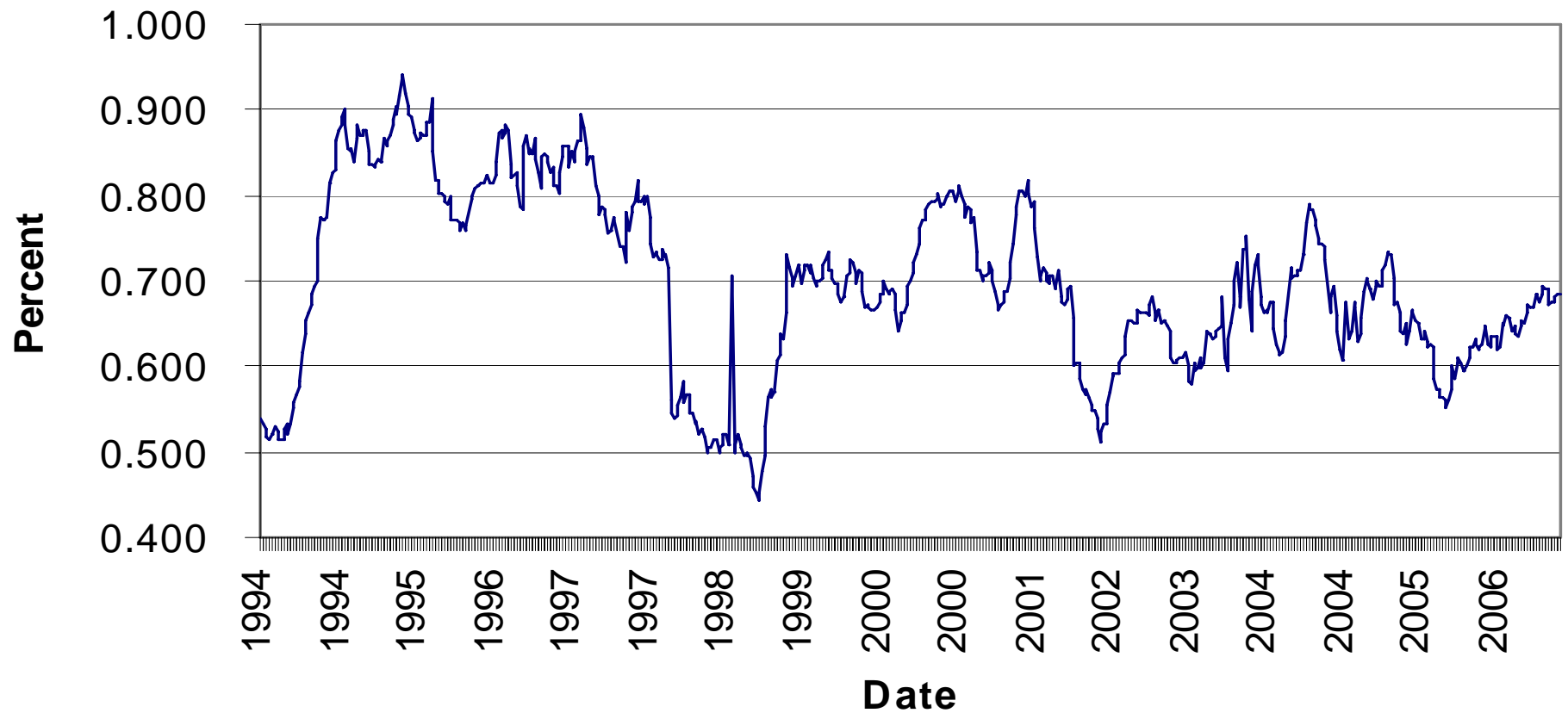
Demand



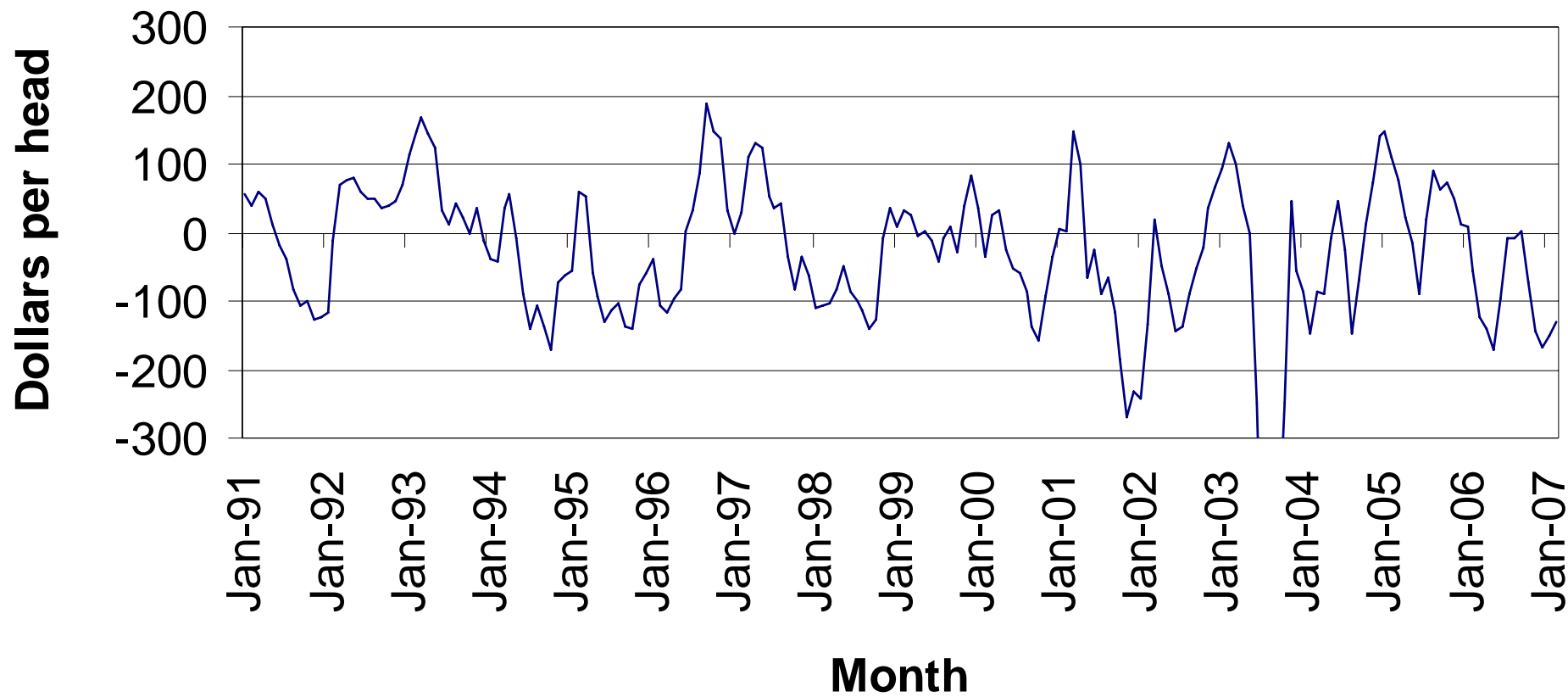


Packer Margin Volatility

Cattle Price as % of Carcass Price

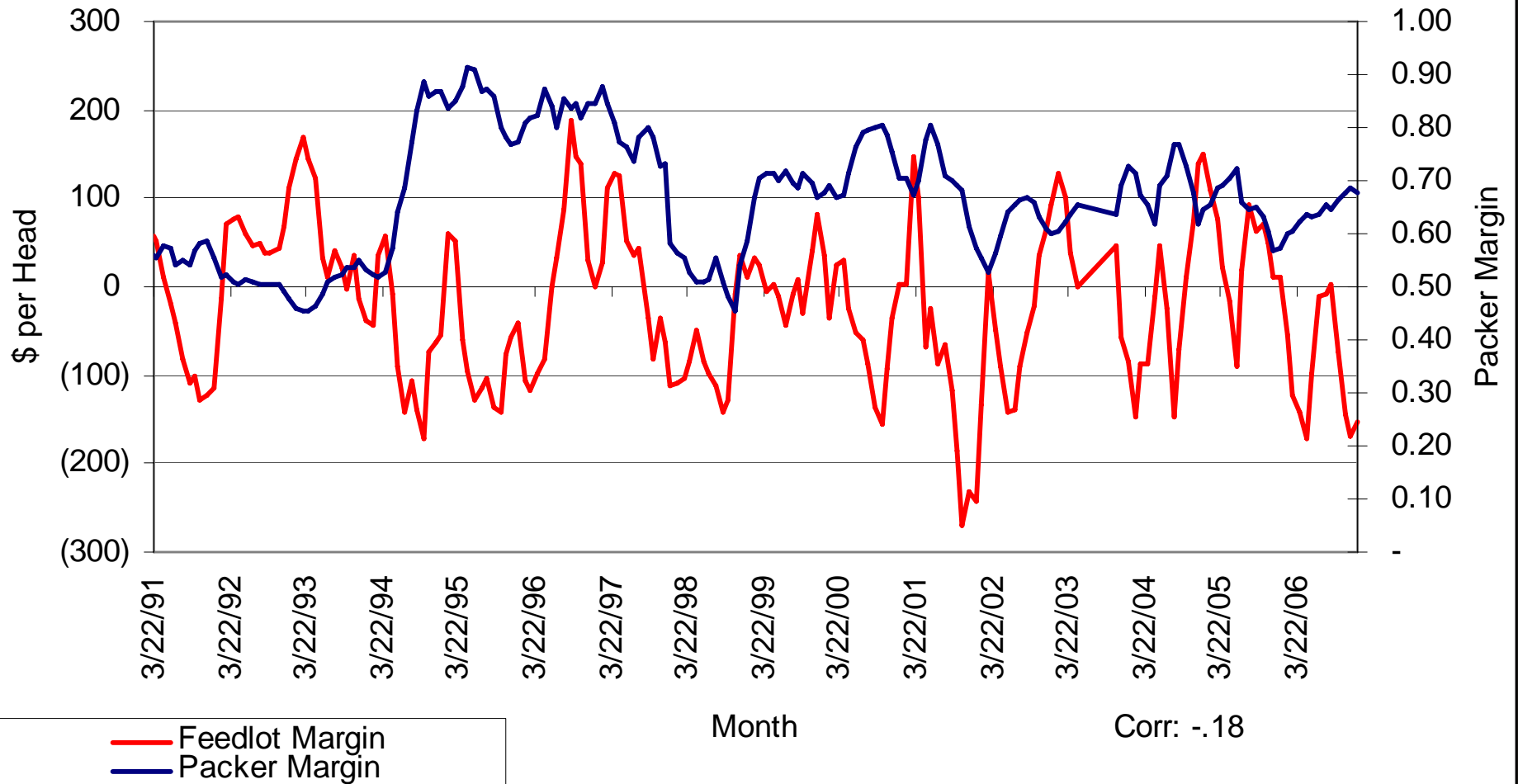


Monthly Yearling Profit and Loss



Source: CanFax

Packer versus Feedlot Margin



Pricing Spreadsheet: Aggregated Carcass Data					
Base price	\$/cwt	95.00			
Lot size	Head	100			
Premiums	\$/cwt		7.40	Live weight (lbs)	1350
Discounts	\$/cwt			Carcass weight (lbs)	810
Select-Standard, Yield 4-5			-2.70	Dressing %	60
Weight			-0.50		
Other			-1.00	Premium per head	43.2
Sum			-4.20		
Net premium/discount	\$/cwt		3.20		
Net price	\$/cwt		98.20		
Packer Grid Premiums and Discounts			Carcass Distribution		
Quality grade		(\$/cwt.)		Quality grade	(head)
Prime		13.00		Prime	10
AAA		4.00		AAA	25
AA		0.00		AA	30
A		-7.00		A	30
B		-12.00		B	5
Yield grade			Yield grade		
	1	8.00		1	45
	2	3.00		2	50
	3	-25.00		3	5
	4	-40.00		4	0
	5	0.00		5	0
Weight discount			Weight		
	\$/cwt				
Less than 550 lbs		-10.00		Less then 550 lbs	2
More than 8500 lbs		-15.00		More than 950 lbs	2
Other discounts			Other		
	\$/cwt				
Dark cutters		-50.00		Dark cutters	2
OTM		-20.00		OTM	0
Other		-20.00		Other	0

Part 1 Summary

- Premiums for AAA product influenced feeding periods and cattle breeding
- Theoretical evidence supports the potential benefit of value attribute beef
- Packer and Feedlot margin volatility implies potentially high financial risk

Value Chain and Alliances - Why?

- Supply higher valued markets
- Ovoid market power of large processors
- Improve Alberta's competitiveness and farm level profitability
- Grow the industry as a whole

General Attributes - Strengths

- Potential for expansion of the whole industry
- Ability generate new marketing channels and promote consumer loyalty
- Facilitation information transfer
- Extracting value from various cattle types.
- Connect consumers to the rural lifestyle
- Potential for price stability and lower risk

General Attributes - Weaknesses

- Large capital requirements
- Retail track record of failed commitments
- High cost of production
- Lack of transparent price discovery
- Delayed cash flow to primary producers
- Niche market with a low volume of output
- Often led by people and investors with little or no experience in the meat business.

General Attributes - Opportunities

- Potential to grow the 'Alberta' brand
- Market development in to the US and Asia
- Potential for seed stock producers to improve genetics from information flows
 - Improve carcass quality based on genetics
- Cooperation among new and existing organizations
- Standardization of definitions and quality descriptors

General Attributes - Threats

- Competition from low cost global producers
- High financial risk levels
- Shortage of equity and debt financing
- Non-competitive processing costs
- Lack of standardized quality specifications
- Inconsistency and lack of transparency in price discovery

Production Cost Comparisons



Close

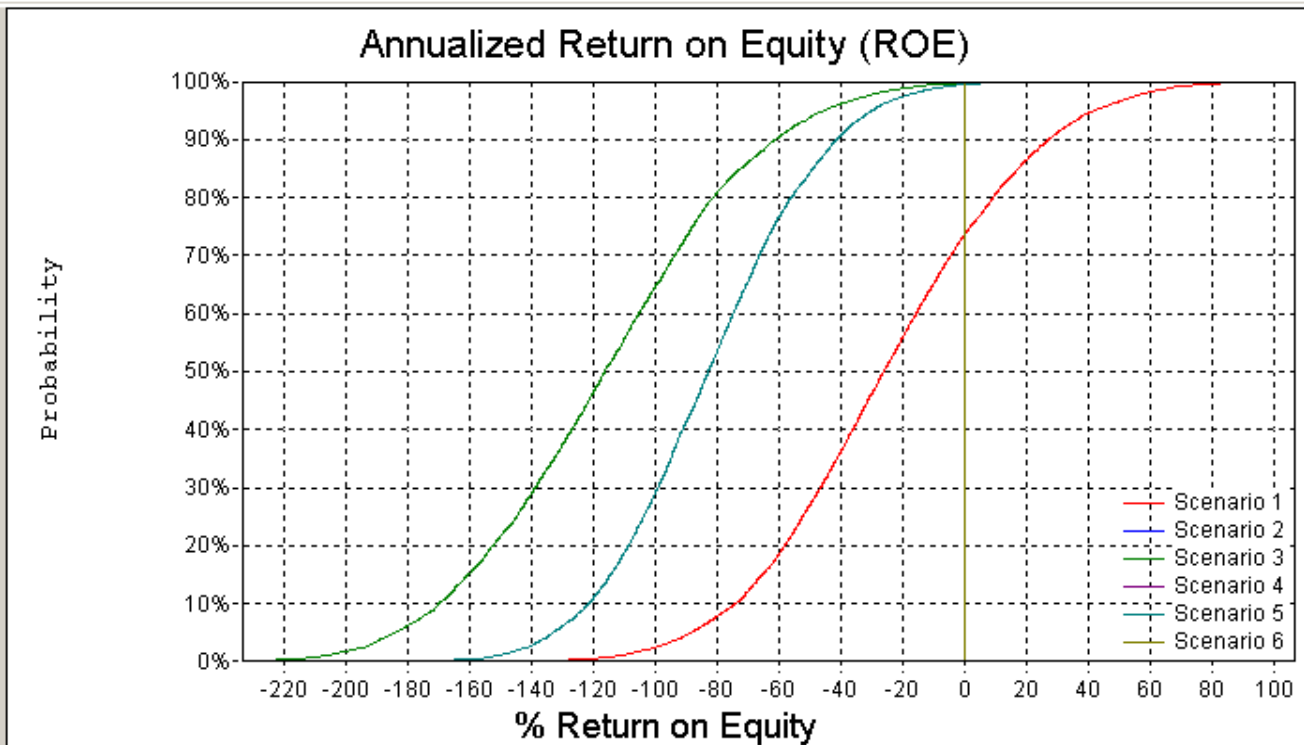
Clear

Print Scenario Analysis

User Guide



	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Description	Full Finish High Grain		Early Finish High Grain No Imp		Late Finish High Grain No Imp	
Date In	11/15/2006		11/15/2006		11/15/2006	
Purchase Weight (lbs)	550		550		550	
Purchase Price	1.22		1.25		1.25	
End Date	7/18/2007		6/8/2007		8/27/2007	
Expected Break Even (\$/lb)	\$.967		\$1.055		\$1.069	
Expected Cost of Gain (\$/lb)	\$.783		\$.856		\$.923	
Expected Profit (\$/head)	-40.28		-151.54		-160.26	
Expected Annualized Return on Investment (ROI)	-.88%		-23.67%		-15.26%	
Expected Annualized Return on Equity (ROE)	-24.54%		-115.68%		-82.03%	
Standard Deviation of Annualized ROE	39.45%		41.77%		31.16%	
There is a 10 % chance of ROE below:	-74.00%		-169.80%		-121.49%	
The chance of failing to break even is:	73.47%		99.80%		99.50%	
The chance of ROE below 20 % is:	86.39%		99.99%		100.00%	



Comparative Production Costs

		In cost	ADG	F:G	Vet - \$/hd	Yield	COG	\$/hd diff	% diff COG
High Grain 3.50 / bu	Base 550 lb 1334 #	1.22	3.2	5.8 5	25	-	78.3	-	-
	Early 1145# No imp/ion	1.25	2.9	6.5	10	-1.5%	84.8	-\$103	8.3%
	Late 1262 # No imp/ion	1.25	2.5	6.9	10	+ .5%	92.3	-\$122	17.9 %
Low Grain 2.25 / bu	Base 550 lb calves	1.40	3.2	5.8 5	25	-	62.8	-	-
	Early Finish No imp/ion	1.43	2.9	6.5	10	-1.5%	67.5	-\$120	4.7%
	Late Finish No imp/ion	1.43	2.5	6.9	10	+ .5%	74.0	-\$111	17.8 %

Wrap - up

- Premiums for AAA product influenced breeding programs creating higher value.
- Theoretical evidence supports the potential benefit of value attribute beef.
 - inelastic demand - sensitive to supply
- Vertical integration can be risky.
- Significant economic constraints
 - Cost or production – pricing efficiency