

Current Ag Co-op Conditions and Outlook

Keri Jacobs, Iowa State University

Taygold Board Planning Session

September 8, 2016

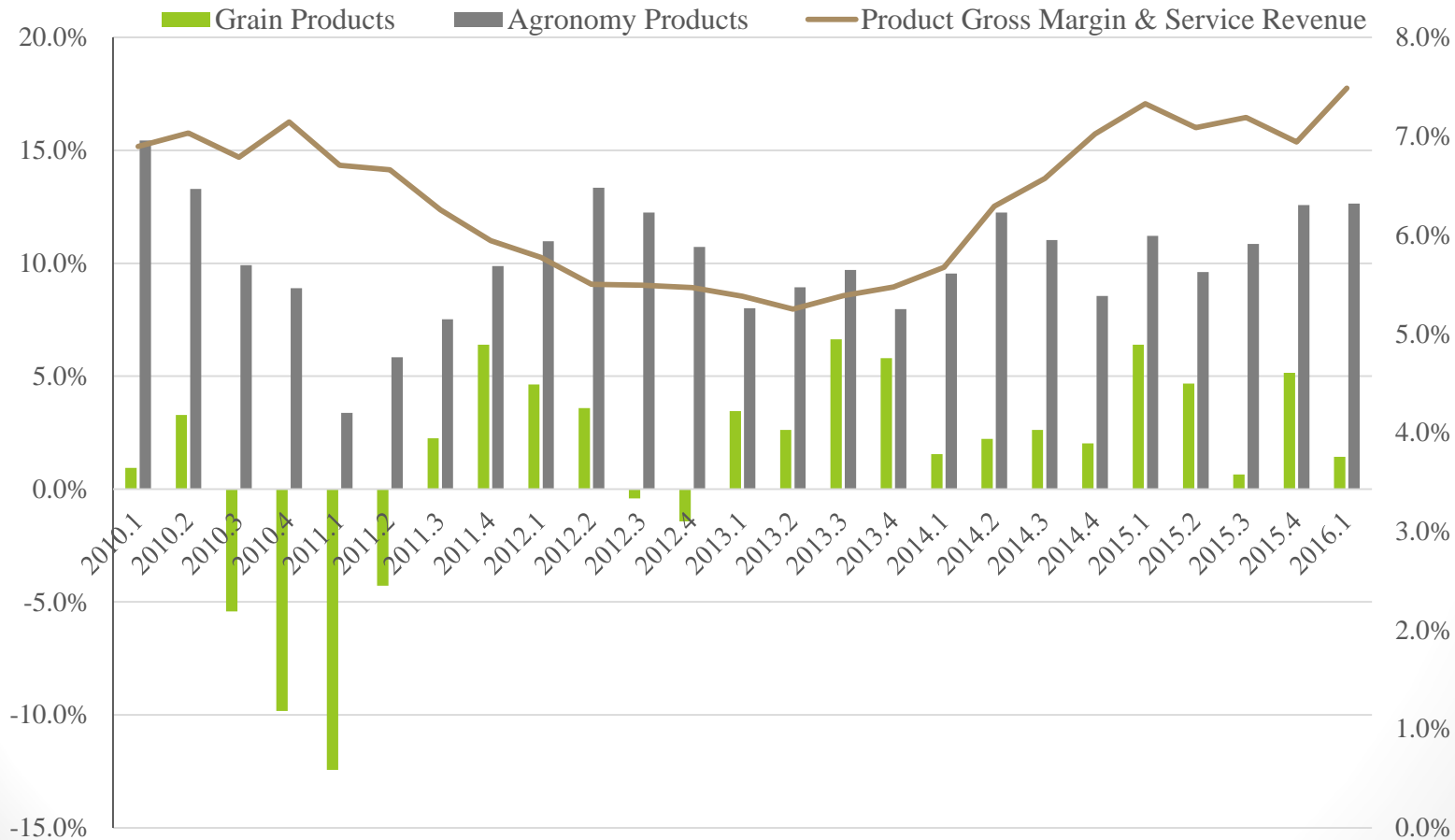
Discussion Outline

- Financial status of grain & FS co-ops in Iowa
- Economics of “size”
 - Is bigger better?
 - Why are companies pursuing mergers?
- The human capital factor
- Marketing outlook (Chad Hart)

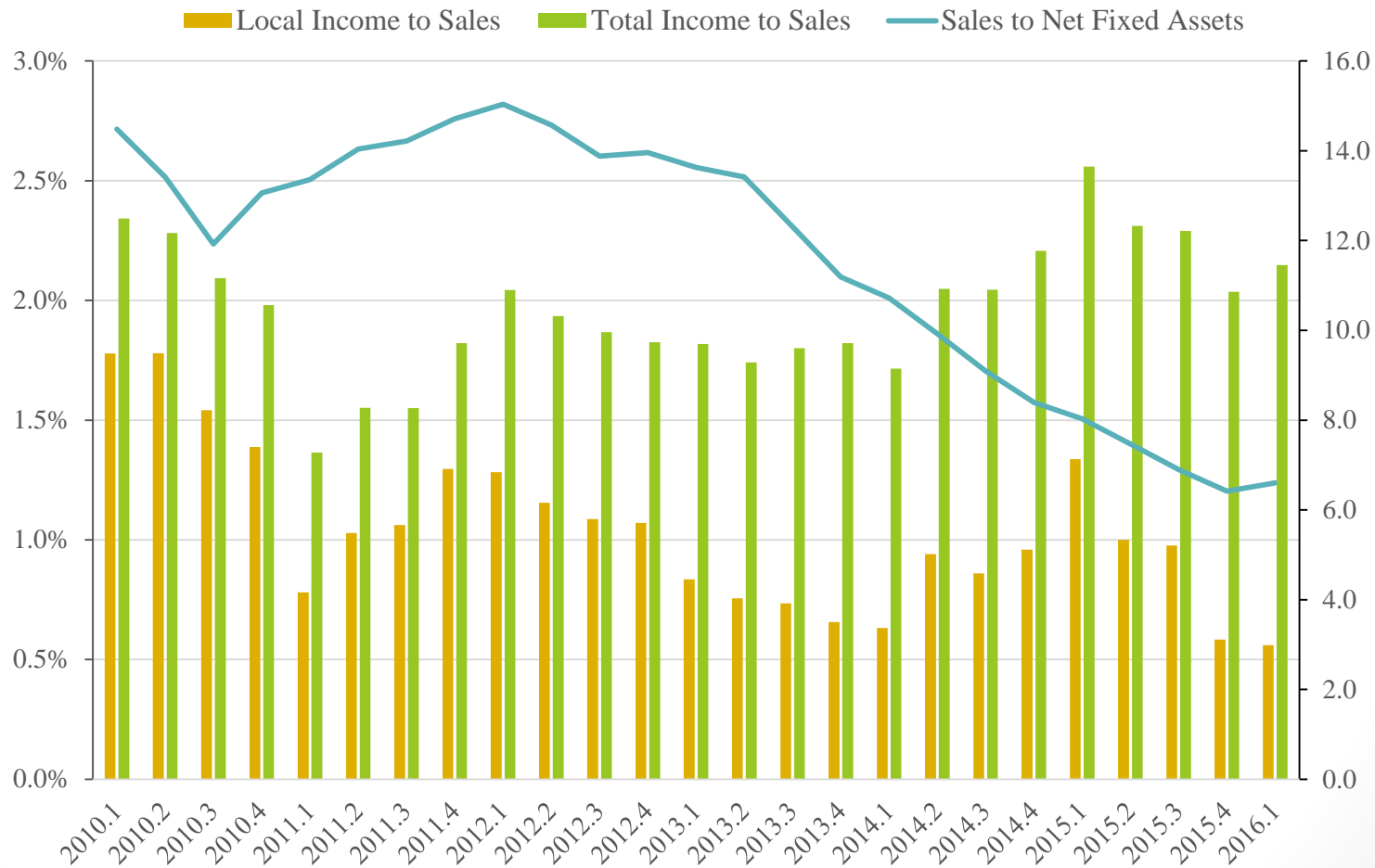
Financial Performance

- Operating Margin
 - gross product margin plus service revenue net of operating expenses per dollar of sales (before interest, taxes, depreciation and amortization)
- Local Return on Sales
 - local income generated per dollar of sales
 - Target 1% grain sales + 2.5% non-grain sales

Margins expected to tighten into 2017



Regional support has helped



Balance Sheets are Strong

- Working capital to sales
 - 7% of non-grain sales + 1.5% of grain sales
- Local Leverage
 - < 50% of local equity tied up in term debt
- Term debt to net fixed assets
 - < 50% of NFA financed with term debt

Key Financial Indicators	5-Year Average	Q1 2016 YTD
Working Capital to Sales	5.3%	5.4%
Sales to Local Equity	10.82	6.42
Long Term Debt to Net Fixed Assets	53.9%	37.1%
Long Term Debt to Local Equity	51.7%	39.2%
Accounts Receivable Collection Days	43.18	18.97

Decomposing Profitability

- Profitability can be decomposed

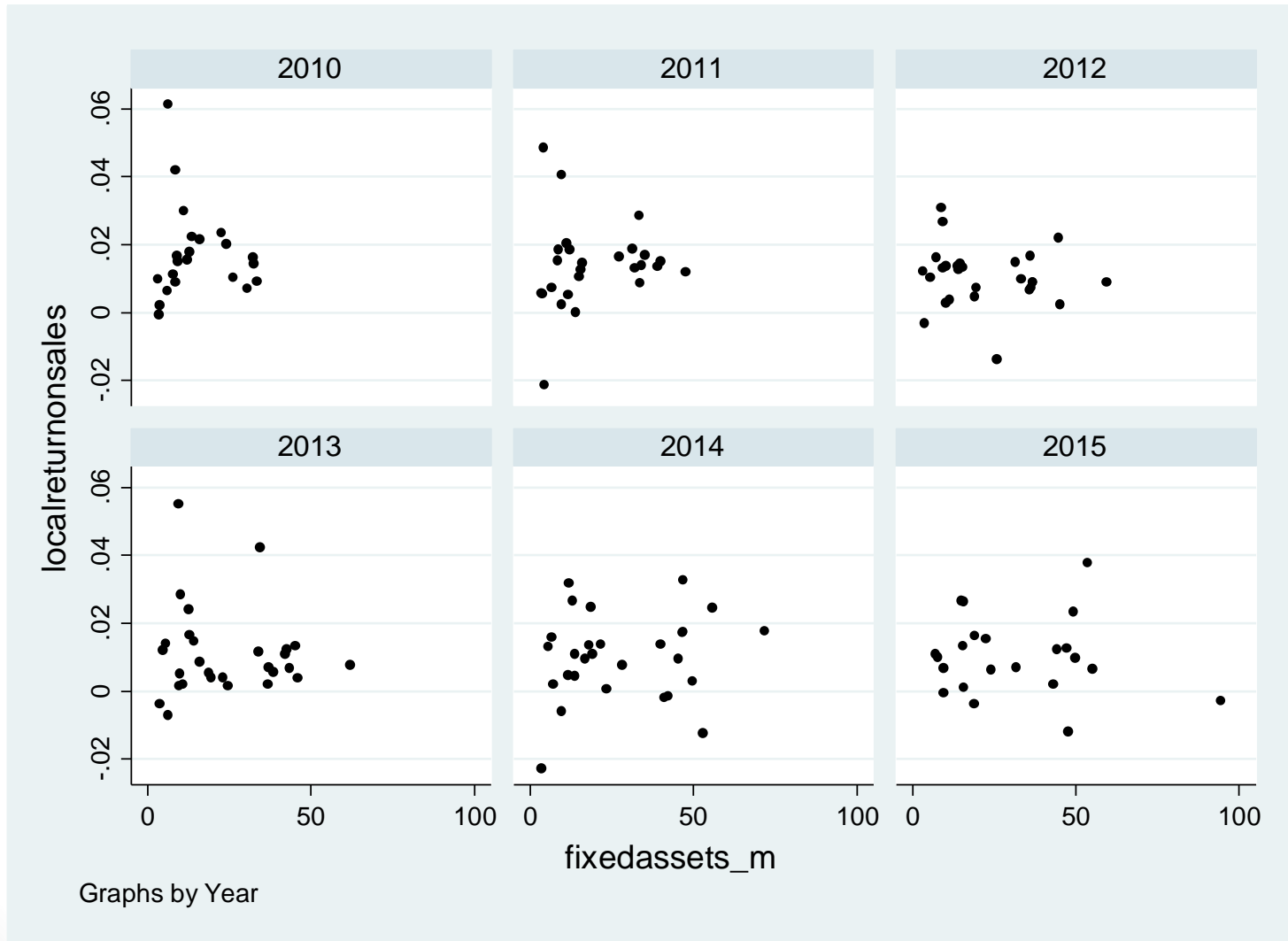
$$\frac{\text{Local Pre-Tax Inc}}{\text{Local Equity}} = \frac{\text{Local Pre-Tax Inc}}{\text{Local EBITDA}} \times \frac{\text{Local EBITDA}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Local Assets}} \times \frac{\text{Local Assets}}{\text{Local Equity}}$$

- Co-ops that perform well do the best job of keeping profits by managing margins and expenses.
- Your reality is a bottom line of 2.5 cents of every sales dollar. Managing margins & expenses is crucial.

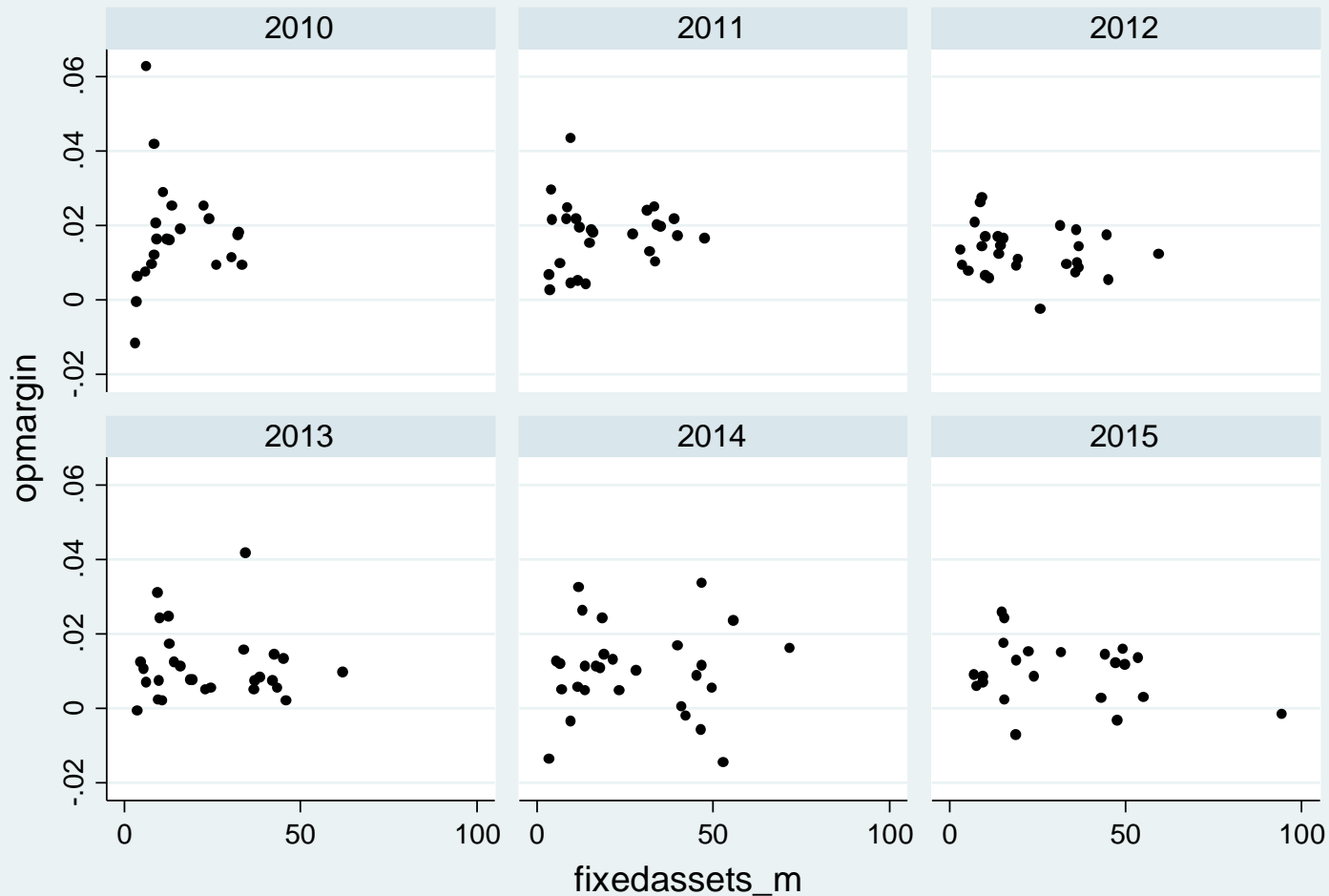
Weathering 2016 – 2018

- Maintain working capital
- Utilize existing assets more efficiently
- Manage labor
- Be diligent with customer accounts and aware of the risks
 - Producers also facing tightening

Local Return on Sales is Not Correlated with Size



Operating Margin is Not Correlated with Size



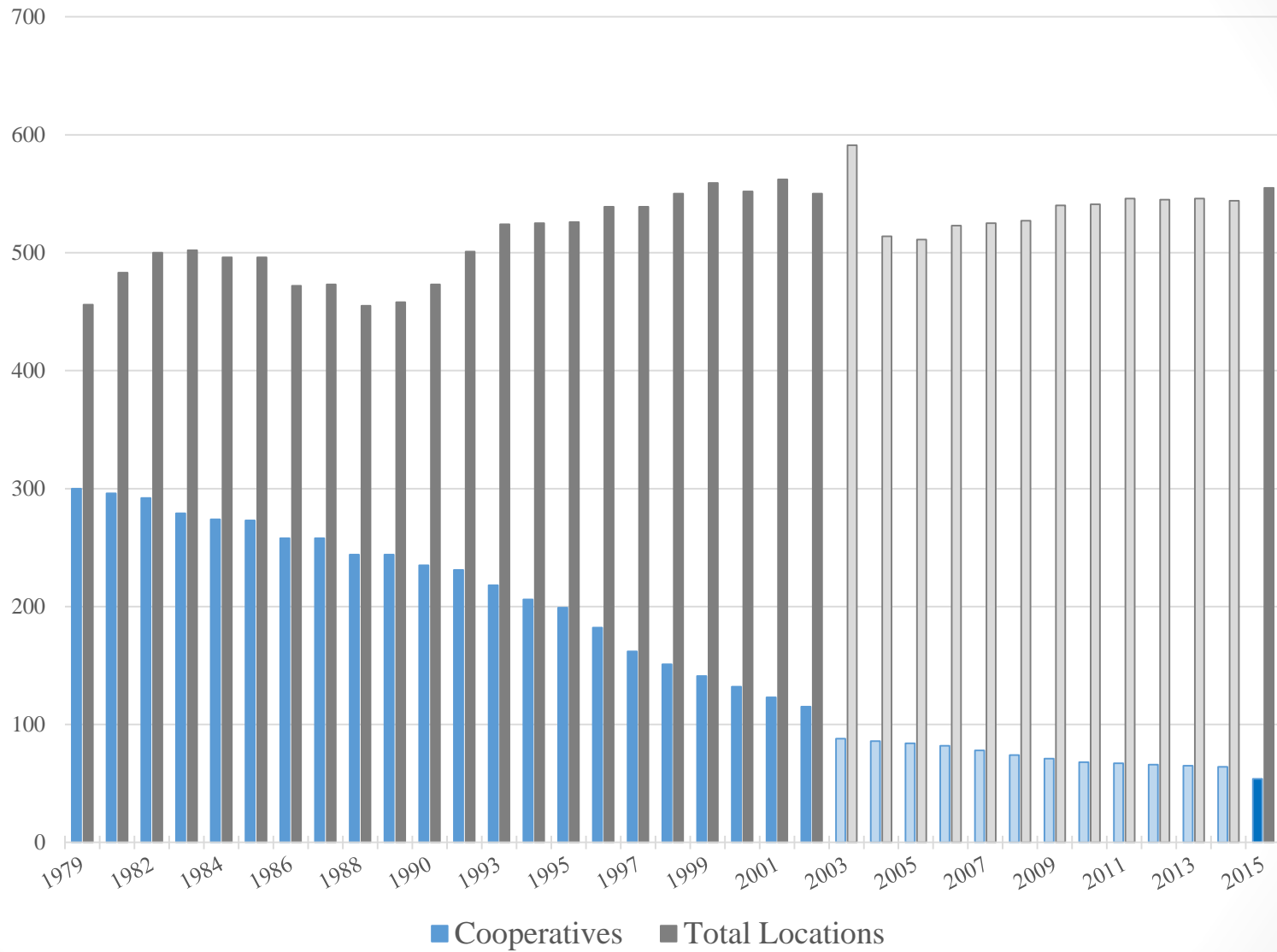
Graphs by Year

Co-ops in Iowa have clearly been on a path towards consolidation.

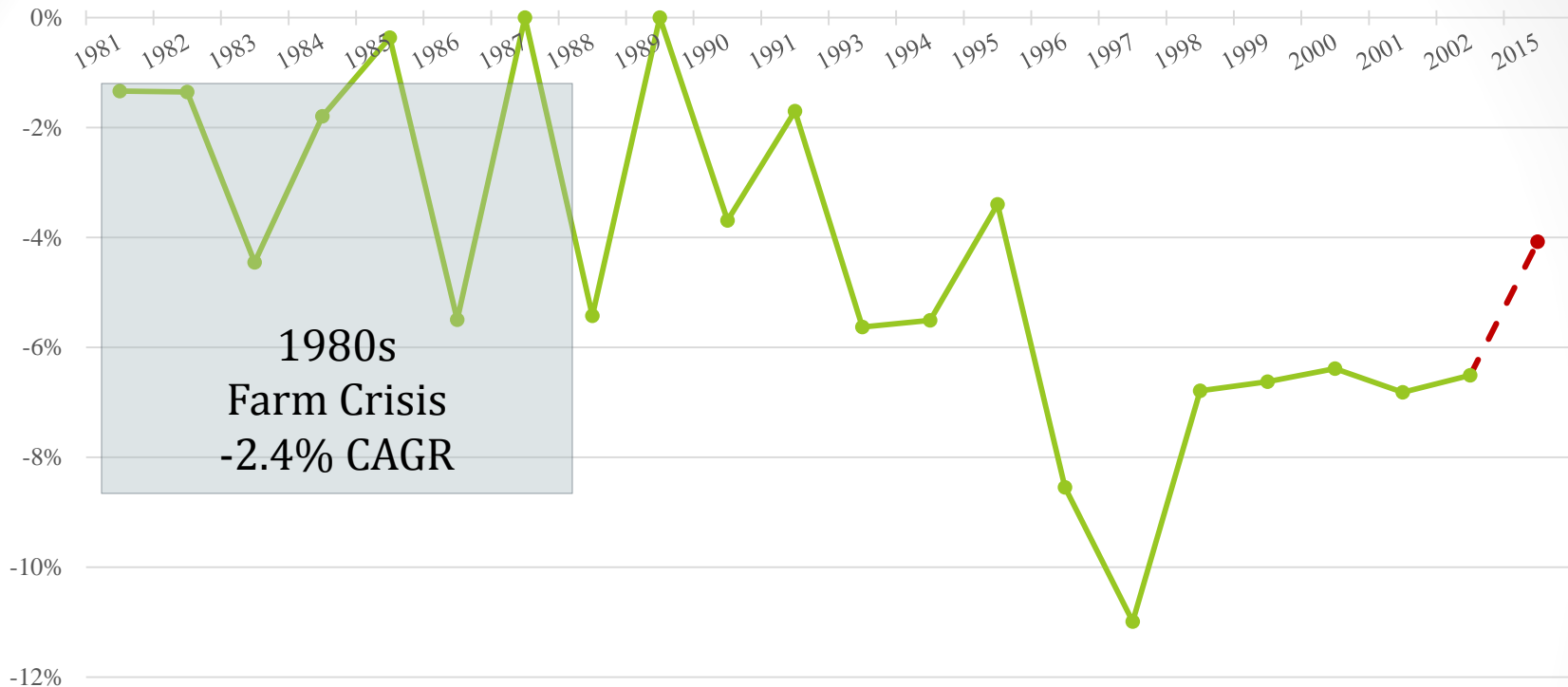
This is not the right strategy for all companies. It should be driven by the adherence to:

- Culture
- Leadership
- Vision

Iowa Cooperatives, 1979 - 2015*



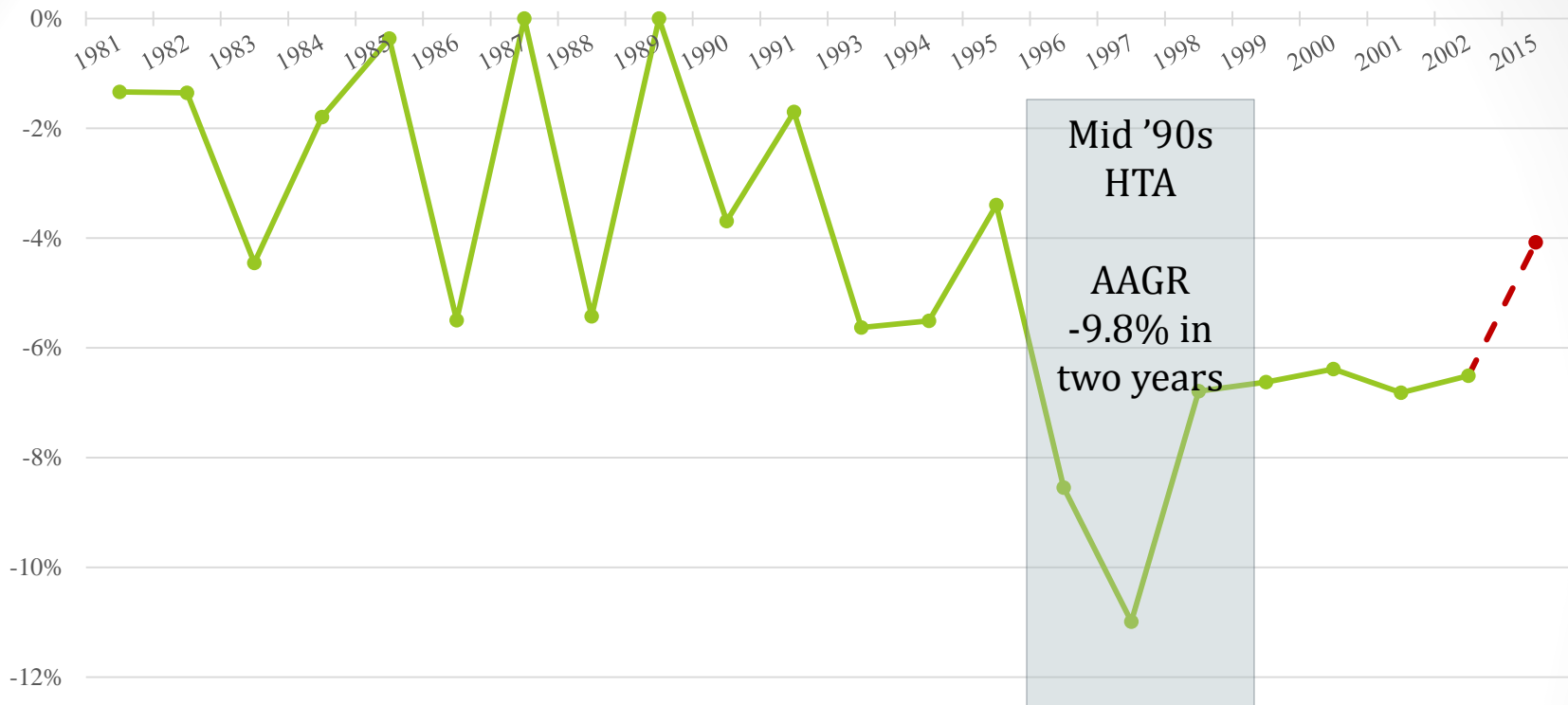
Annual Change in Number of Cooperatives 1981 - 2002, 2015*



1980s

- Consolidation results in loss of approximately 50 co-ops
- Private acquisition and some release of co-ops assets results in no appreciable change in total locations over periods
- Negative growth mirrored loss of farms during period

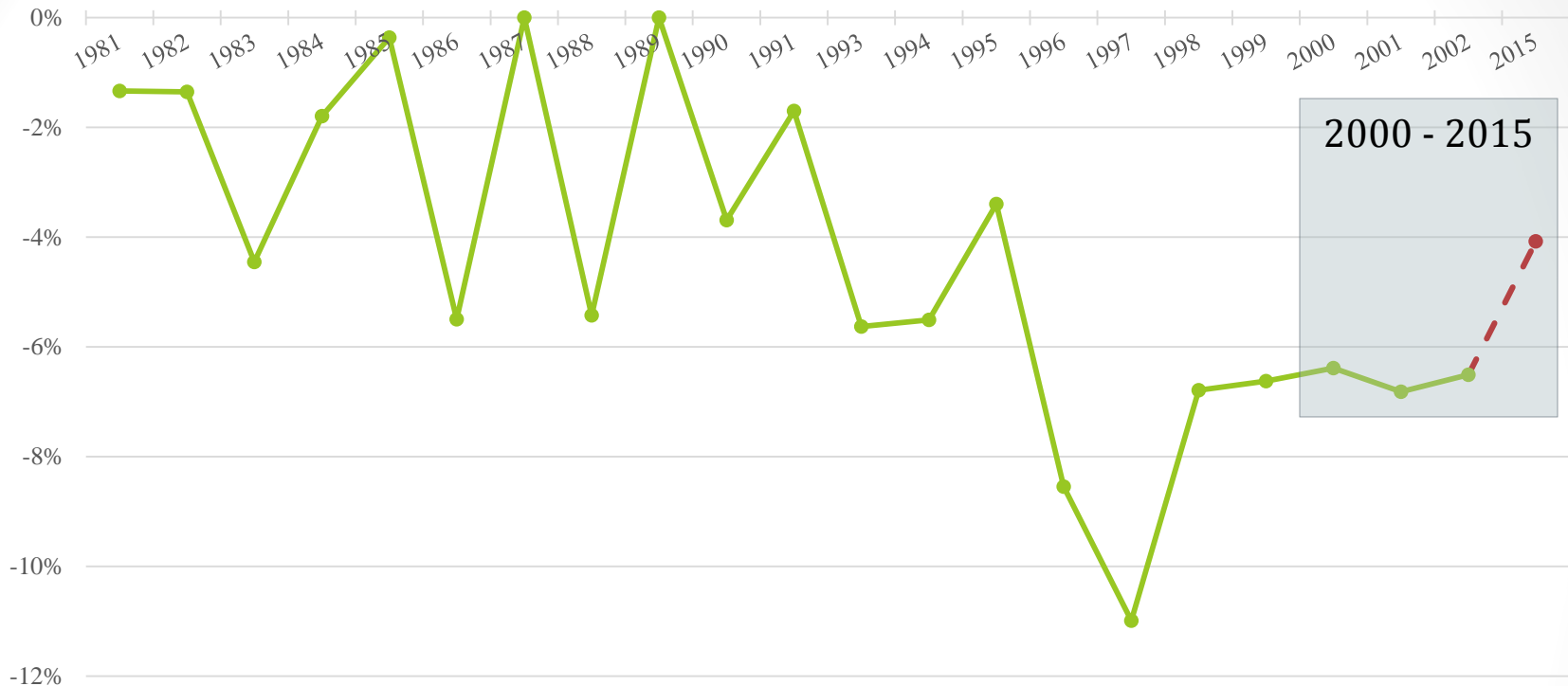
Annual Change in Number of Cooperatives 1981 - 2002, 2015*



1990s

- Relatively stable period leading up to HTA-related problems
- CAGR -5% during 1990s

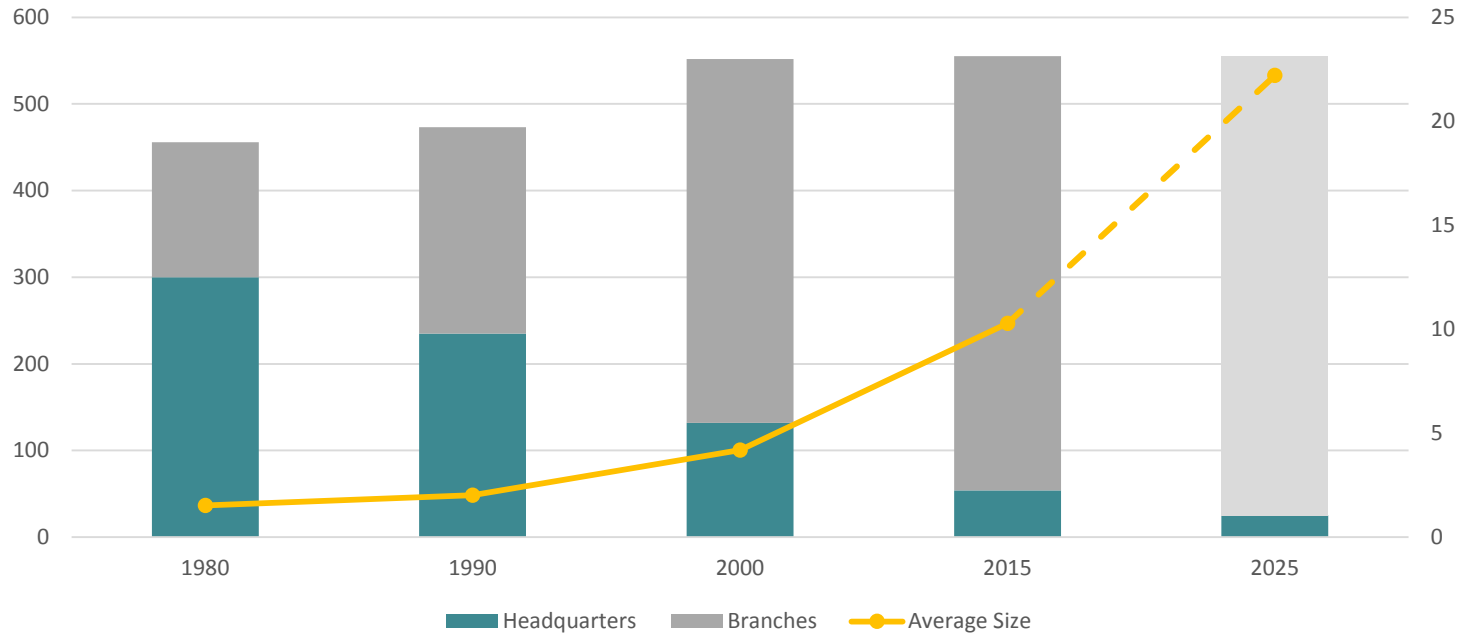
Annual Change in Number of Cooperatives 1981 - 2002, 2015*



2000 - 2015

- Reduced activity 2001 – 2002, 2007 – 2008, but picking up again
- Ethanol impacts after 2005?
- Human capital needs

Iowa Co-ops are Doubling in Size About Every 10 Years



- If the current consolidation rate holds, expect Iowa's co-ops to number 25 – 30 by 2025, with an average size of 20 locations.

What Does 'Growth' Achieve

➤ Differentiate between getting bigger and getting better – how will you grow?

What is *better*?

- Increased efficiency of operations – “rates of return”
 - Capital – better access?
 - Physical assets – alignment with members
 - Labor – attract/retain skill and streamline

'Growth' Economics

- Economies of **scale** – the change in output associated with proportional increases in all inputs. (a technical production factor)

“If we double in size, do we produce at least twice as much?” *(caveat – without negatively impacting other factors)*

- Economies of size – the change in per-unit average costs of output when production increases. (long run economic cost factor)

“Will growing in size allow us to reduce per-unit costs?”



An Integral Part of the Equation: Labor

If 'growth' achieves gains to *labor*, you might be on to something...

- Co-op labor expenses for is historically between 45 – 50% of total expenses
- If your labor expenses are greater than 40% of gross revenue, you need to re-evaluate.

Marketing Picture (Chad Hart)

- Record U.S. corn crop and probably also soybeans
 - Could pull 10 bu/acre from corn and 1.5 bu/acre from beans and still hit record production
- Crop usage at record highs
 - Feed demand growing – increases in cattle, hogs, poultry
 - High export demand despite strong dollar
 - High ethanol usage
- Market is more responsive to supply shocks than demand – weather in S.A. could move market
- Lower prices through fall, weather-driven seasonal rallies in Spring possible (take advantage where possible)

U.S. Corn Supply and Use

		2012	2013	2014	2015	2016
Area Planted	(mil. acres)	97.3	95.4	90.6	88.0	94.1
Yield	(bu./acre)	123.1	158.1	171.0	168.4	175.1
Production	(mil. bu.)	10,755	13,829	14,216	13,601	15,153
Beg. Stocks	(mil. bu.)	989	821	1,232	1,731	1,706
Imports	(mil. bu.)	160	36	32	65	50
Total Supply	(mil. bu.)	11,904	14,686	15,479	15,397	16,909
Feed & Residual	(mil. bu.)	4,315	5,040	5,324	5,200	5,675
Ethanol	(mil. bu.)	4,641	5,124	5,200	5,200	5,275
Food, Seed, & Other	(mil. bu.)	1,397	1,369	1,360	1,367	1,375
Exports	(mil. bu.)	730	1,920	1,864	1,925	2,175
Total Use	(mil. bu.)	11,083	13,454	13,748	13,692	14,500
Ending Stocks	(mil. bu.)	821	1,232	1,731	1,706	2,409
Season-Average Price	(\$/bu.)	6.89	4.46	3.70	3.60	3.15

U.S. Soybean Supply & Use

		2012	2013	2014	2015	2016
Area Planted	(mil. acres)	77.2	76.8	83.3	82.7	83.7
Yield	(bu./acre)	40.0	44.0	47.5	48.0	48.9
Production	(mil. bu.)	3,042	3,358	3,927	3,929	4,060
Beg. Stocks	(mil. bu.)	169	141	92	191	255
Imports	(mil. bu.)	41	72	33	25	30
Total Supply	(mil. bu.)	3,252	3,570	4,052	4,145	4,346
Crush	(mil. bu.)	1,689	1,734	1,873	1,900	1,940
Seed & Residual	(mil. bu.)	105	107	146	109	126
Exports	(mil. bu.)	1,317	1,638	1,842	1,880	1,950
Total Use	(mil. bu.)	3,111	3,478	3,862	3,889	4,016
Ending Stocks	(mil. bu.)	141	92	191	255	330
Season-Average Price	(\$/bu.)	14.40	13.00	10.10	8.95	9.10

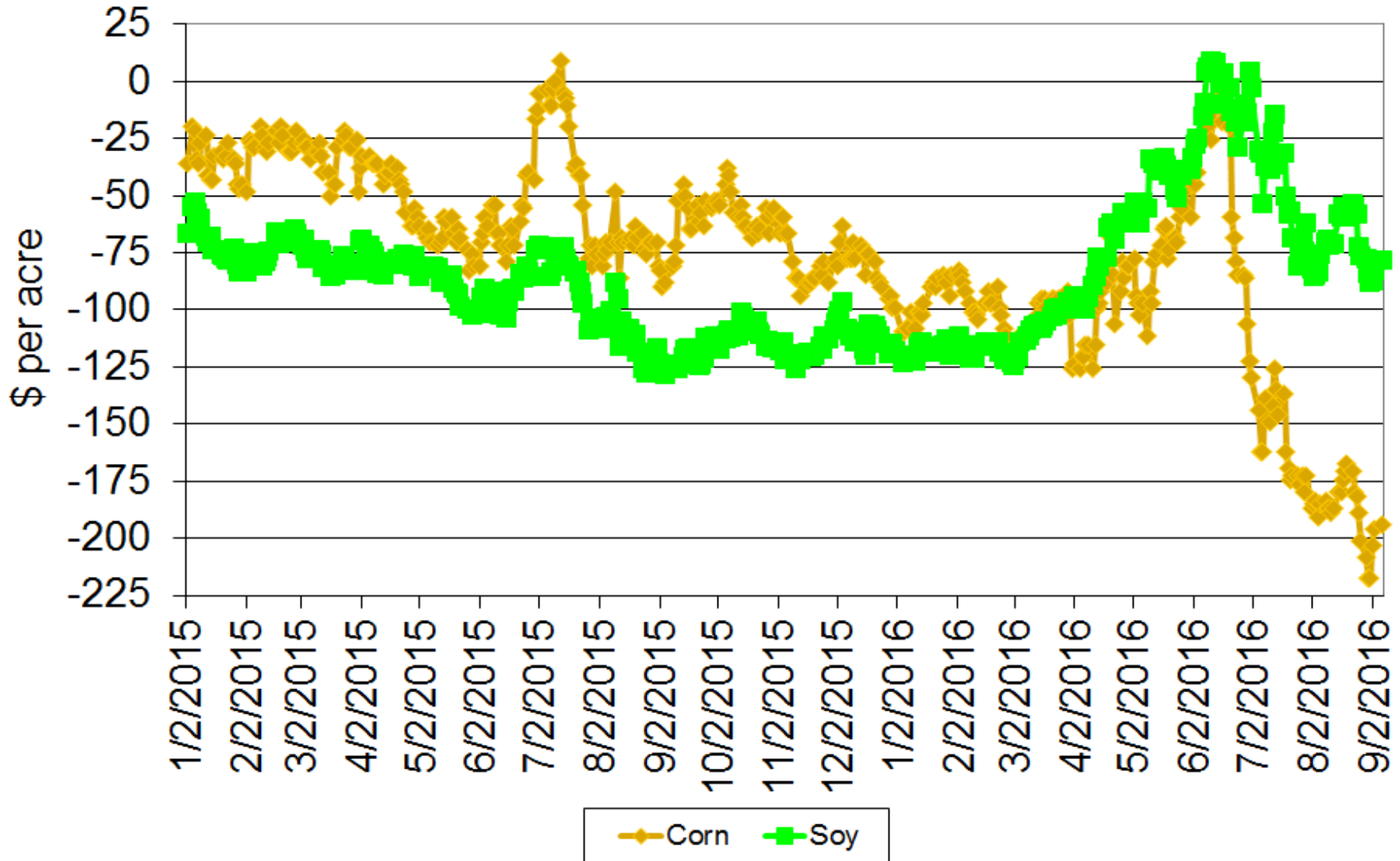
World Corn Production

Country or Region	2015/16 estimate	2016/17 forecast	Change from July 12	Change from 2015/16
	<i>Million Tons</i>	<i>Million Tons</i>	<i>Percent</i>	<i>Percent</i>
World	959.7	1,028.4	1.7	7.2
United States	345.5	384.9	4.2	11.4
Foreign	614.2	643.5	0.3	4.8
Argentina	28.0	36.5	7.4	30.4
Brazil	68.5	80.0	0.0	16.8
Mexico	25.0	24.5	1.2	-2.0
Canada	13.6	12.0	-4.0	-11.8
European Union	59.1	62.1	-2.7	5.1
Serbia	6.0	7.0	0.0	16.7
FSU-12	40.4	44.2	0.0	9.2
Ukraine	23.3	26.0	0.0	11.4
Russia	13.2	14.0	0.0	6.3
South Africa	7.0	13.0	0.0	85.7
China	224.6	218.0	0.0	-2.9
India	21.0	24.5	6.5	16.7

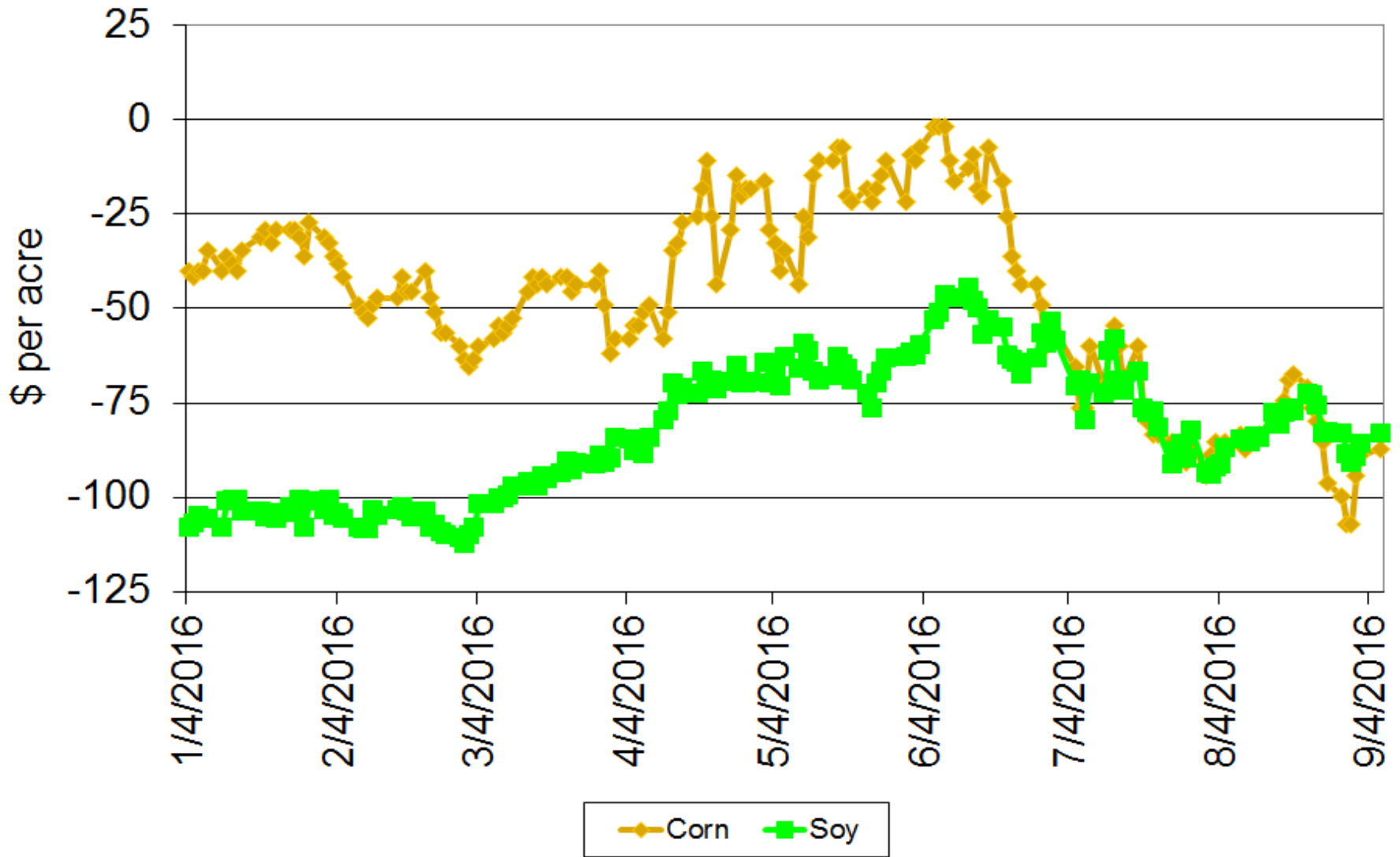
World Soybean Production

Country or Region	2015/16 estimate	2016/17 forecast	Change from July 12	Change from 2015/16
	<i>Million Tons</i>		<i>Percent</i>	<i>Percent</i>
World	312.7	330.4	1.4	5.7
United States	106.9	110.5	4.6	3.3
Foreign	205.7	219.9	-0.2	6.9
Argentina	56.5	57.0	0.0	0.9
Brazil	96.5	103.0	0.0	6.7
Paraguay	9.0	9.2	1.9	1.9
Ukraine	3.9	4.0	-7.0	1.7
India	7.0	11.4	-2.6	62.9
China	11.6	12.2	0.0	5.2

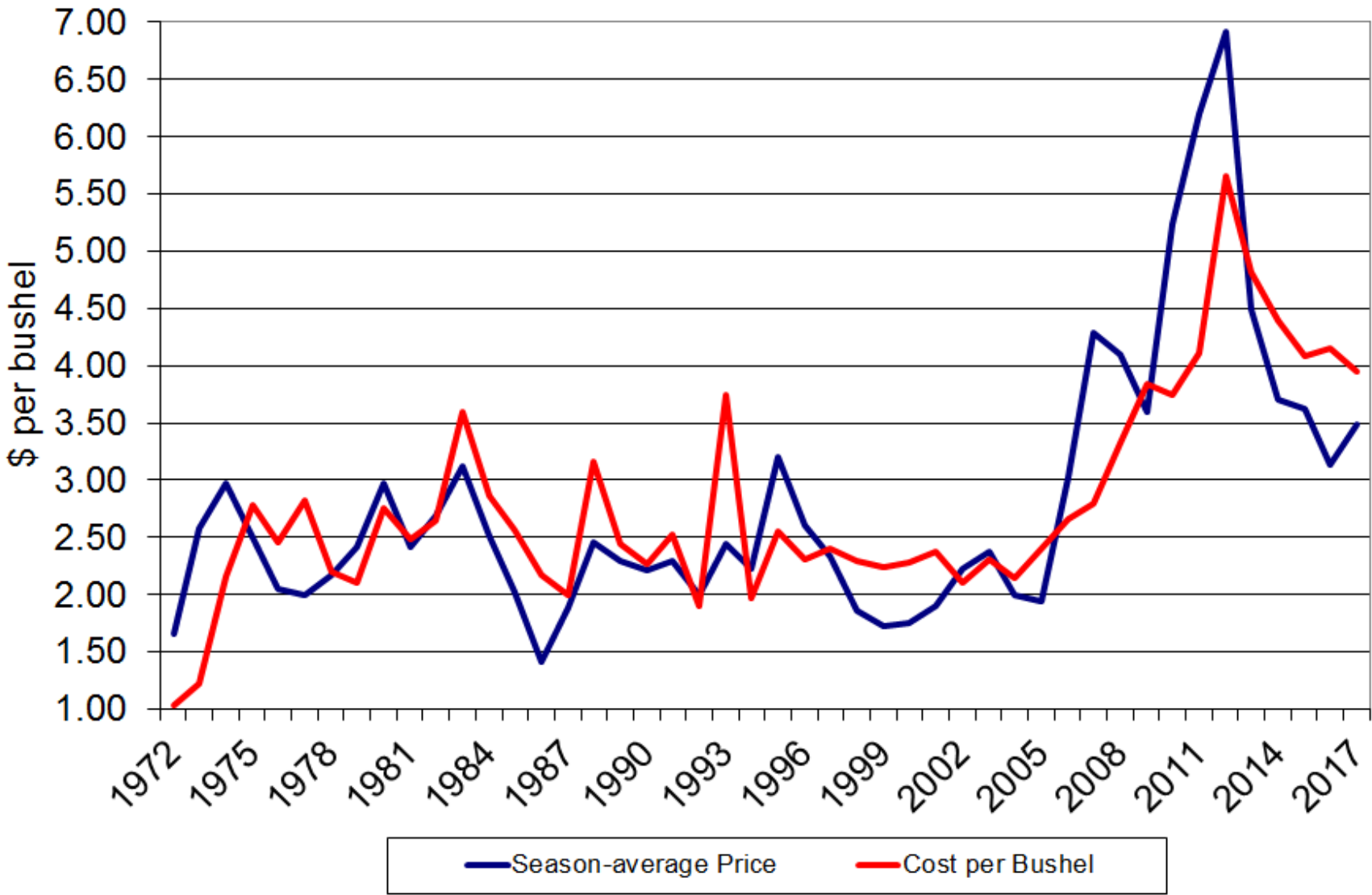
2016/17 Crop Margins



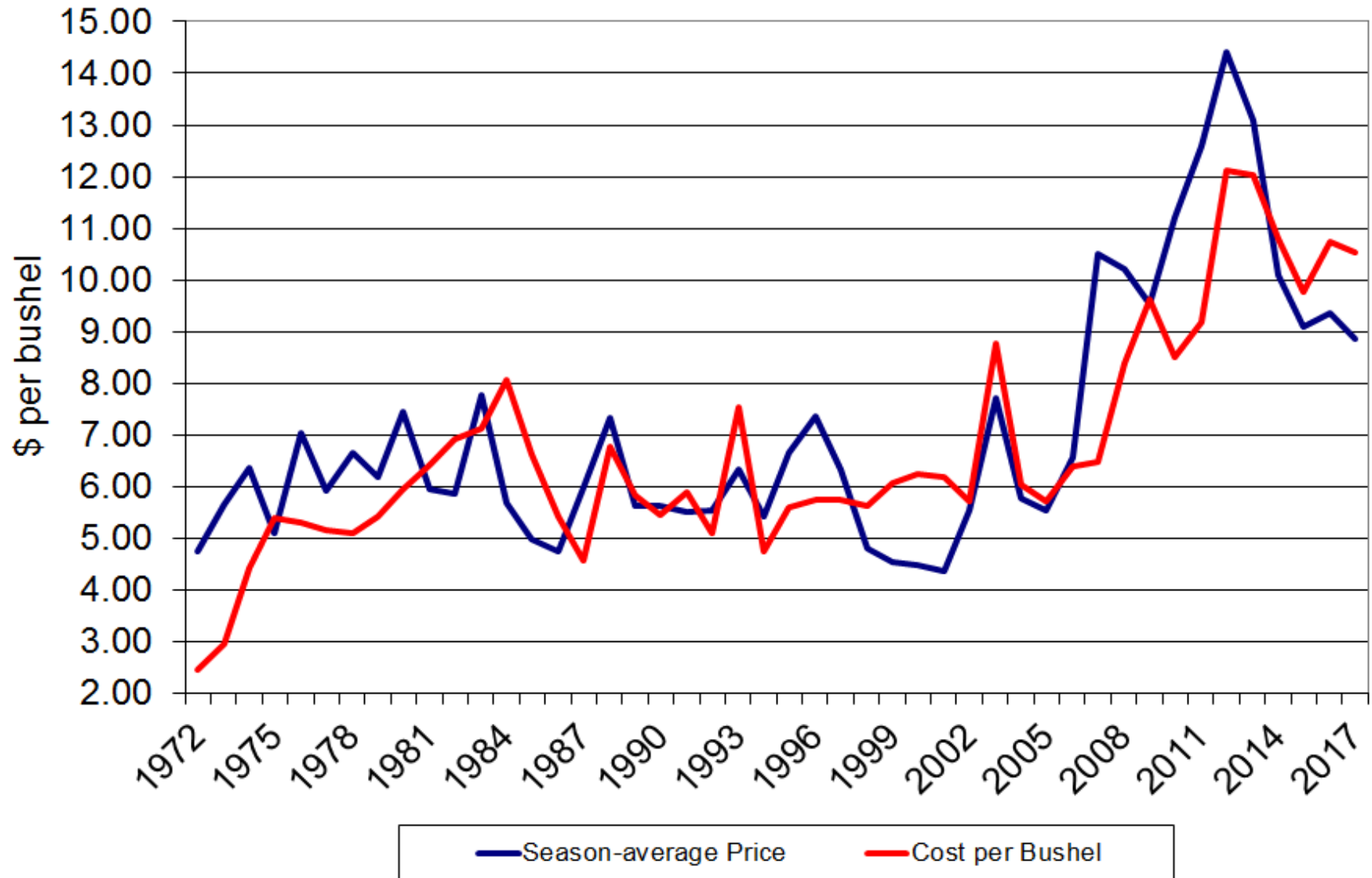
2017/18 Crop Margins



Iowa Corn Prices vs. Costs



Iowa Soybean Prices vs. Costs



Looking Forward

- A trifecta of stress on the balance sheet
 - Lower farm income
 - Tighter margins
 - Aging population with equity expectations
- Leading indicators on customer accounts
 - Accounts receivable
 - Finance charges

Will You Break The Balance Sheet?

A decision tool designed to help boards and their manager predict the ending balance sheet based on budgeting assumptions and decisions.

What you need:

- Basic balance sheet
- Budgeting assumptions of sources and uses of funds
- Know what *are* sources and uses of funds
- The excel tool

Sources of Funds

All funds *coming into* the business

- Local savings
- New long-term debt
- Depreciation (you get that back)
- Cash portion of regional patronage
- Stock sales and retirements of regional investments

Uses of Funds

All funds *going out of* the business

- Purchases of fixed assets
- Term debt payments
- Equity & stock retirements
 - Cash patronage to members, dividends, estates
- Income tax
- New investments

Example using the B.S. Tool

Thank you for having me!

email: kljacobs@iastate.edu

website: kerijacobs.net

CoMetrics Data (2010.3 to 2015.3)

- Afton Farmers Cooperative
- Aspinwall Cooperative
- Cooperative Elevator Association
- Crystal Valley Cooperative (MN)
- Dows Farmers Cooperative
- East Central Iowa Cooperative
- FAC Cooperative
- Farmers Elevator Cooperative
- FSC Harlan
- First Cooperative Association
- Forest City Farmers Coop
- Fredericksburg Farmers Cooperative
- Frontier Ag Inc (KS)
- Garden City Co-op, Inc. (KS)
- Gold-Eagle Cooperative
- Hull Cooperative Association
- Jackson Farmers Cooperative (MN)
- Key Cooperative
- Linn Cooperative Oil
- North Central Farmers Elevator (SD)
- North Iowa Cooperative
- River Valley Cooperative
- Sioux Center Farmers Cooperative
- Two Rivers Cooperative
- United Farmers Mercantile Cooperative
- United Prairie (IL)
- Watonwan (WFS)
- Western Iowa Cooperative

Summary Data (Rolling)

Firms	Y.Q		Net Fixed Assets	Sales	Operating Margin	Local Equity	Local Income	Investments in Cooperatives
		Average	\$ 15,037,069	\$ 166,716,003	\$ 2,760,289	\$ 16,897,480	\$ 2,670,114	\$ 8,653,022
22	2010.3	Min	\$ 3,129,270	\$ 47,534,444	\$ (736,426)	\$ 3,820,297	\$ (30,859)	\$ 109,371
		Max	\$ 33,465,056	\$ 425,625,693	\$ 7,057,496	\$ 33,807,041	\$ 7,584,752	\$ 23,468,858
		Average	\$ 19,499,363	\$ 249,968,089	\$ 4,437,954	\$ 20,136,423	\$ 3,712,714	\$ 9,165,784
26	2011.3	Min	\$ 3,336,200	\$ 50,765,147	\$ 343,638	\$ 2,895,439	\$ (1,178,758)	\$ (147,074)
		Max	\$ 47,465,105	\$ 614,665,034	\$ 12,670,579	\$ 40,494,344	\$ 12,071,644	\$ 24,690,100
		Average	\$ 22,118,833	\$ 284,969,097	\$ 3,368,655	\$ 22,729,122	\$ 2,735,706	\$ 10,597,337
27	2012.3	Min	\$ 3,218,763	\$ 59,928,325	\$ (650,922)	\$ 3,051,900	\$ (3,602,714)	\$ 541,352
		Max	\$ 59,351,955	\$ 738,013,070	\$ 9,841,841	\$ 42,024,022	\$ 9,872,697	\$ 38,408,481
		Average	\$ 24,006,801	\$ 285,916,635	\$ 2,995,691	\$ 24,180,432	\$ 2,849,219	\$ 12,375,052
28	2013.3	Min	\$ 3,567,631	\$ 67,690,188	\$ (41,178)	\$ 4,383,900	\$ (490,517)	\$ 1,565,938
		Max	\$ 61,913,828	\$ 872,118,099	\$ 16,403,116	\$ 47,473,880	\$ 16,577,977	\$ 45,539,313
		Average	\$ 27,877,066	\$ 235,045,533	\$ 2,433,090	\$ 27,751,421	\$ 2,635,329	\$ 12,619,517
28	2014.3	Min	\$ 3,429,352	\$ 48,744,800	\$ (6,391,470)	\$ 4,739,226	\$ (5,462,082)	\$ 864,443
		Max	\$ 71,874,938	\$ 743,849,805	\$ 14,961,330	\$ 58,789,071	\$ 14,603,864	\$ 45,261,637
		Average	\$ 31,649,746	\$ 218,214,025	\$ 1,851,207	\$ 30,332,329	\$ 2,169,044	\$ 13,876,379
22	2015.3	Min	\$ 7,055,864	\$ 51,794,399	\$ (1,161,682)	\$ 8,181,952	\$ (2,498,701)	\$ 1,793,792
		Max	\$ 94,376,234	\$ 612,378,587	\$ 6,058,885	\$ 65,162,527	\$ 12,828,406	\$ 48,382,437

Summary Data (Rolling)

Firms	Y.Q		Net Fixed Assets	Sales	Grain	Feed	Agron	Energy	Allocated Equity	Allocated Local Equity
		Average	\$ 15,037,069	\$ 166,716,003	55.22%	12.53%	20.92%	9.79%	42.90%	66.67%
22	2010.3	Min	\$ 3,129,270	\$ 47,534,444	0.00%	0.00%	8.57%	0.00%	-5.27%	-6.07%
		Max	\$ 33,465,056	\$ 425,625,693	81.16%	41.43%	100.00%	22.57%	61.26%	102.54%
		Average	\$ 19,499,363	\$ 249,968,089	59.58%	10.71%	19.45%	9.10%	40.42%	61.63%
26	2011.3	Min	\$ 3,336,200	\$ 50,765,147	0.00%	0.00%	7.26%	0.00%	-13.88%	-15.95%
		Max	\$ 47,465,105	\$ 614,665,034	83.93%	38.45%	99.99%	31.23%	59.93%	110.45%
		Average	\$ 22,118,833	\$ 284,969,097	58.32%	10.51%	20.32%	9.65%	37.39%	56.16%
27	2012.3	Min	\$ 3,218,763	\$ 59,928,325	0.00%	0.00%	7.20%	0.00%	-17.65%	-20.41%
		Max	\$ 59,351,955	\$ 738,013,070	79.26%	39.34%	99.99%	43.58%	55.59%	104.78%
		Average	\$ 24,006,801	\$ 285,916,635	57.43%	10.81%	21.01%	9.65%	36.39%	55.30%
28	2013.3	Min	\$ 3,567,631	\$ 67,690,188	0.00%	0.00%	7.19%	0.00%	-18.32%	-21.05%
		Max	\$ 61,913,828	\$ 872,118,099	80.61%	40.04%	99.99%	48.12%	58.95%	104.26%
		Average	\$ 27,877,066	\$ 235,045,533	52.19%	11.66%	22.63%	12.23%	36.02%	52.17%
28	2014.3	Min	\$ 3,429,352	\$ 48,744,800	0.00%	0.00%	6.38%	0.00%	-25.54%	-29.40%
		Max	\$ 71,874,938	\$ 743,849,805	77.49%	41.60%	100.00%	50.31%	59.34%	84.62%
		Average	\$ 31,649,746	\$ 218,214,025	51.73%	13.59%	21.53%	11.27%	36.93%	53.35%
22	2015.3	Min	\$ 7,055,864	\$ 51,794,399	0.00%	0.00%	8.14%	0.00%	1.03%	2.48%
		Max	\$ 94,376,234	\$ 612,378,587	70.64%	42.67%	73.88%	32.31%	61.08%	88.23%

Quartile Performance by Year

Local Return on Sales

Year		Quartiles			
		25th	50th	75th	100th
2010	<i>min</i>	-0.06%	0.79%	1.54%	2.18%
	<i>mean</i>	0.47%	1.13%	1.76%	3.35%
	<i>max</i>	0.76%	1.51%	2.15%	6.12%
2011	<i>min</i>	-2.79%	0.65%	1.17%	1.67%
	<i>mean</i>	-0.05%	0.91%	1.45%	2.32%
	<i>max</i>	0.62%	1.14%	1.66%	4.21%
2012	<i>min</i>	-1.38%	0.84%	1.23%	1.63%
	<i>mean</i>	0.17%	1.02%	1.41%	2.28%
	<i>max</i>	0.74%	1.20%	1.61%	3.72%
2013	<i>min</i>	-1.50%	0.39%	0.76%	1.22%
	<i>mean</i>	-0.07%	0.58%	0.97%	2.06%
	<i>max</i>	0.38%	0.76%	1.21%	4.23%
2014	<i>min</i>	-2.28%	0.20%	0.95%	1.57%
	<i>mean</i>	-0.35%	0.59%	1.24%	2.51%
	<i>max</i>	0.20%	0.94%	1.53%	4.95%
2015	<i>min</i>	-1.20%	0.66%	1.10%	1.73%
	<i>mean</i>	-0.03%	0.86%	1.28%	2.64%
	<i>max</i>	0.66%	1.06%	1.63%	3.77%

Operating Margin

Year		Quartiles			
		25th	50th	75th	100th
2010	<i>min</i>	-0.04%	0.96%	1.72%	2.18%
	<i>mean</i>	0.58%	1.37%	1.93%	3.51%
	<i>max</i>	0.94%	1.63%	2.11%	6.26%
2011	<i>min</i>	-0.03%	0.96%	1.60%	2.13%
	<i>mean</i>	0.53%	1.24%	1.86%	2.69%
	<i>max</i>	0.96%	1.57%	2.12%	4.55%
2012	<i>min</i>	-0.32%	0.95%	1.42%	1.91%
	<i>mean</i>	0.60%	1.18%	1.68%	2.44%
	<i>max</i>	0.93%	1.39%	1.89%	3.90%
2013	<i>min</i>	-1.00%	0.59%	1.01%	1.33%
	<i>mean</i>	0.25%	0.79%	1.14%	2.09%
	<i>max</i>	0.58%	1.00%	1.32%	4.18%
2014	<i>min</i>	-1.67%	0.32%	0.91%	1.41%
	<i>mean</i>	-0.21%	0.61%	1.17%	2.39%
	<i>max</i>	0.29%	0.90%	1.39%	4.89%
2015	<i>min</i>	-1.16%	0.56%	0.98%	1.46%
	<i>mean</i>	-0.02%	0.82%	1.23%	2.11%
	<i>max</i>	0.48%	0.98%	1.45%	3.25%