



PRICING EL DORADO WINE GRAPES

Metrics, Markets & Perceptions

Vineyard Financial Associates

■ What do I do?

- *Forecasting*
- *Allocation and Investment Strategy*
- *Valuations*
- *Custom and General Consulting*
- *Grape Data Tool*

■ A few caveats

- *I Do Not Focus on the El Dorado Region*
- *This Presentation has Limitations*
- *This is Not a Forecast*
- *I am Not a Cheerleader*
- *I am Not Malcolm Gladwell*

THE COST STUDY

Gloom with a Sprinkling of Doom



The Basic Takeaway

Revenue Side:

4 Tons per Acre
x \$1,300 per Ton
= \$5,200 per Acre

Expense Side:

\$8,414 per Acre = \$2,103 per Ton =
Loss of (\$3,214) per Acre

What About the Jimmies?

- Expenses may not be the same as yours.
- This is a Polaroid picture, not a video or crystal ball.
- El Dorado is doing better than the rest of District 10.
- On the other hand...

District 10

Year	T/ac
2015	2.41
2014	2.90
2013	3.38
2012	3.70
2011	2.78
2010	2.82
2009	3.03
2008	2.53
2007	3.26
2006	3.41
2005	3.18
2004	2.98
2003	2.95
2002	3.69
2001	3.85
2000	3.85
1999	3.42
1998	3.09
1997	4.49
1996	4.32
1995	4.34
1994	4.13

Yields are Lower Than in the Cost Study and Falling

- Average of 3.43 tons per acre.
- Steadily falling. People not replanting for financial reasons?
- CAGR = **-2.52%**.
- Acreage Report for 2016 comes out tomorrow.

Ranging Analysis

- El Dorado received 2.1 t/ac in 2015.
- El Dorado received \$1,502/t in 2015.
- Approximate OpEx break-even:
 - \$2,250/t x 2.1 tons.
 - 3 t/ac at \$1,502/t.
 - **98th %ile or 1.04%**
- Approximate cash cost break-even:
 - \$2,500/t x 2.1 tons.
 - 3.5 t/ac at \$1,502/t.
 - **99th %ile or .002%**
- Approximate all-in break-even (note the scale change):
 - \$4,000/t x 2.1 tons.
 - Around 6 tons at \$1,502/t.
 - **Anyone? 0%!**

Net Return per Acre above Operating Costs for Wine Grapes

PRICE (\$/ton)	YIELD (Ton/acre)						
	3.25	3.50	3.75	4.00	4.25	4.50	4.75
Grapes							
1000.00	-1,068	-876	-683	-491	-299	-107	85
1100.00	-743	-526	-308	-91	126	343	560
1200.00	-418	-176	67	309	551	793	1,035
1300.00	-93	174	442	709	976	1,243	1,510
1400.00	232	524	817	1,109	1,401	1,693	1,985
1500.00	557	874	1,192	1,509	1,826	2,143	2,460
1600.00	882	1,224	1,567	1,909	2,251	2,593	2,935

Net Return per Acre above Cash Costs for Wine Grapes

PRICE (\$/ton)	YIELD (Ton/acre)						
	3.25	3.50	3.75	4.00	4.25	4.50	4.75
Grapes							
1000.00	-1,688	-1,496	-1,304	-1,112	-919	-727	-535
1100.00	-1,363	-1,146	-929	-712	-494	-277	-60
1200.00	-1,038	-796	-554	-312	-69	173	415
1300.00	-713	-446	-179	88	356	623	890
1400.00	-388	-96	196	488	781	1,073	1,365
1500.00	-63	254	571	888	1,206	1,523	1,840
1600.00	262	604	946	1,288	1,631	1,973	2,315

Net Return per Acre above Total Costs for Wine Grapes

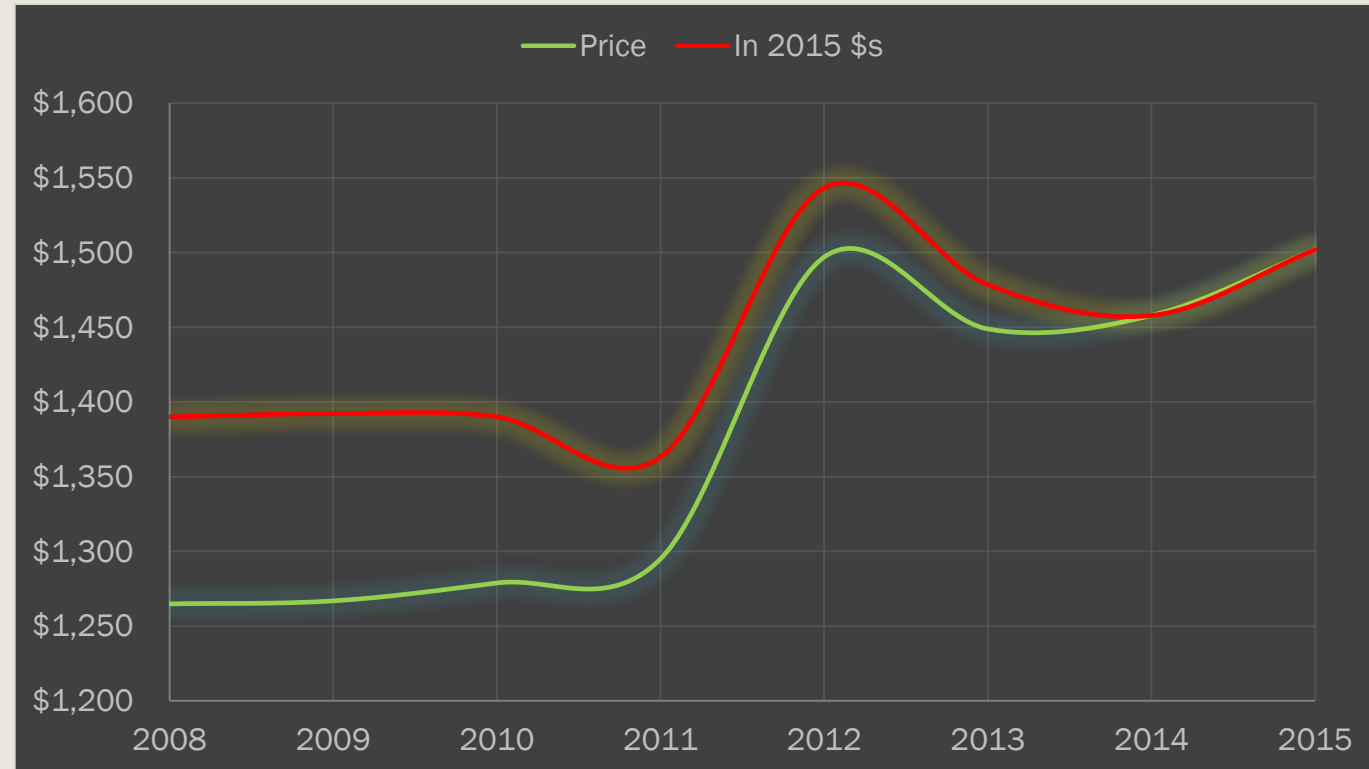
PRICE (\$/ton)	YIELD (Ton/acre)						
	3.25	3.50	3.75	4.00	4.25	4.50	4.75
Grapes							
1900.00	-2,065	-1,648	-1,231	-814	-396	21	438
2000.00	-1,740	-1,298	-856	-414	29	471	913
2100.00	-1,415	-948	-481	-14	454	921	1,388
2200.00	-1,090	-598	-106	386	879	1,371	1,863
2300.00	-765	-248	269	786	1,304	1,821	2,338
2400.00	-440	102	644	1,186	1,729	2,271	2,813
2500.00	-115	452	1,019	1,586	2,154	2,721	3,288

“IT’S HARD TO BELIEVE
IT’S GETTING BETTER”

“It’s getting better all the time,”
But is it getting better fast enough?

Trends in El Dorado Wine Grape Prices

Year	Price	In 2015 \$s
2015	\$1,502	\$1,502
2014	\$1,458	\$1,458
2013	\$1,449	\$1,479
2012	\$1,497	\$1,543
2011	\$1,295	\$1,363
2010	\$1,279	\$1,390
2009	\$1,267	\$1,392
2008	\$1,265	\$1,390
CAGR:	2.2%	1.0%



But how fast are my costs increasing?

Cost Inflation	Labor - H	Labor - M	All	Land	CPI
2000	\$8.04	\$12.06	\$5,956	\$10,000	0.73
2015	\$16.00	\$22.00	\$8,414	\$20,000	1.00
CAGR:	4.39%	3.83%	2.18%	4.43%	1.99%

Regression Analysis	Price	In 2015 \$s
Increase	\$40/yr	\$19/yr
Correlation:	0.89	0.70
P-Value Intercept:	0.0032	0.0606
P-Value Trend:	0.0029	0.0534

“YOU CAN'T ALWAYS GET
WHAT YOU WANT”

“But if you try sometime you find
You get what you need”

Bottle Prices and the Beckstoffer Rule

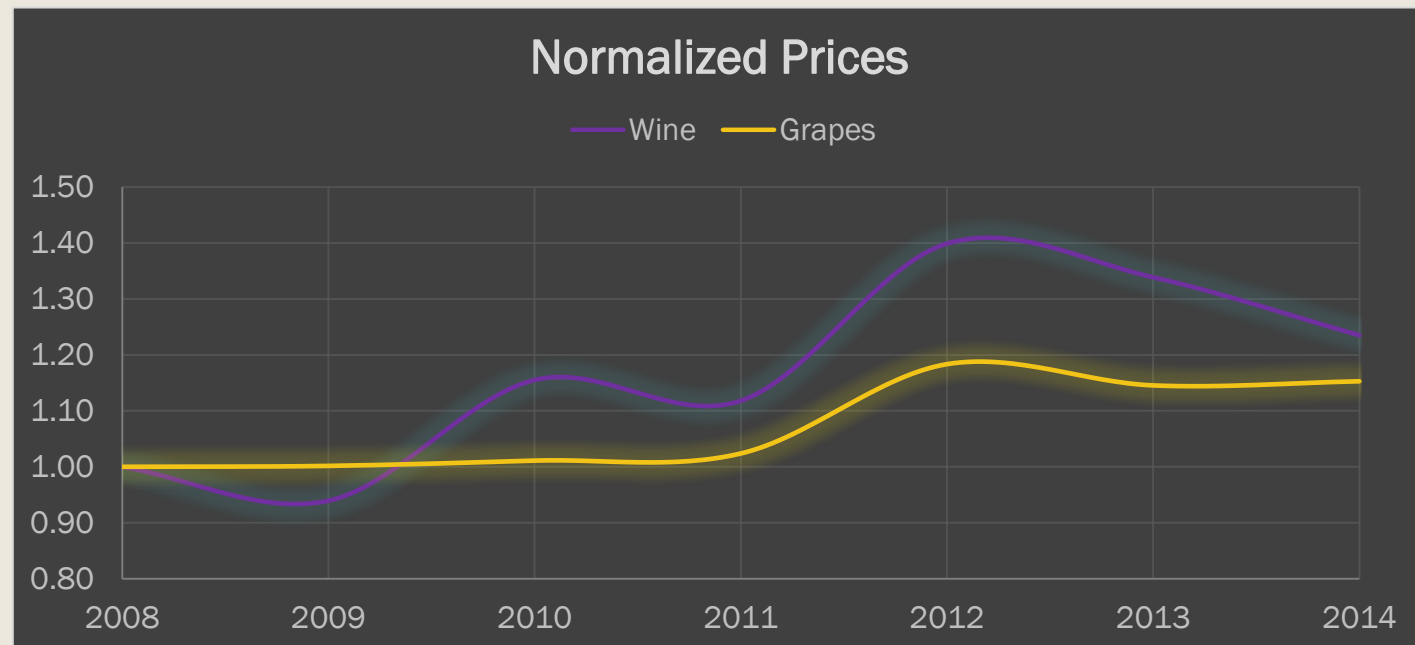
Vintage	Avg Price
2014	\$31.44
2013	\$34.08
2012	\$35.61
2011	\$28.45
2010	\$29.40
2009	\$23.91
2008	\$25.45

Should I be getting \$3,100 per ton?

- Skewed sample
- Marketing costs and appellation

OK, but are grape prices at least keeping up with bottle prices?

Normalized Prices		
Vintage	Wine	Grapes
2014	1.24	1.15
2013	1.34	1.15
2012	1.40	1.18
2011	1.12	1.02
2010	1.16	1.01
2009	0.94	1.00
2008	1.00	1.00



Lesser-Known Appellations and Discounts to the “Beckstoffer Ratio”

- Actual examples are higher at 50%, 51% and 53%.
- Caveats and notes: vintage 2013, possible varietal and positioning skew, depletion rates unknown, 13 > N > 5.
- Lake County benefits from the scarcity of grapes in Napa.
- Looks like winemakers in El Dorado are being fair.
- But, growers should make sure that they continue to get their fair share of the pie.

County	Grape Price	Bottle Price	Beckstoffer Ratio
El Dorado	\$1,449	\$34.08	43%
Lake	\$1,519	\$31.30	49%
San Benito	\$1,382	\$31.80	43%
San Luis Obispo	\$1,337	\$30.40	44%

So, is El Dorado wine priced too low?

$$\text{Beckstoffer Ratio} = \text{Price}_{\text{WineBottle}} / (100 * \text{Price}_{\text{GrapesTon}})$$

How Do El Dorado Prices Stack Up?

- When controlled for score, El Dorado achieves better prices than Lake and Contra Costa.
- Looks to be roughly the same as SLO.
- Priced more competitively than Marin, San Benito and Ventura.
- No strong evidence that El Dorado is not “right priced.”

El Dorado	Avg Score	88.54	
	Avg Price	\$34.08	
Lake	Avg Score	87.70	IfScore:
	Avg Price	\$31.30	\$29-30
Marin	Avg Score	88.29	IfScore:
	Avg Price	\$45.86	>\$46
Contra Costa	Avg Score	88.20	IfScore:
	Avg Price	\$28.40	\$28-29
San Benito	Avg Score	89.40	IfScore:
	Avg Price	\$31.80	\$37-44
San Luis Obispo	Avg Score	87.40	IfScore:
	Avg Price	\$30.40	>\$33
Ventura	Avg Score	86.33	IfScore:
	Avg Price	\$30.67	>\$39

IfScore is the implied price a wine would have from this region, if it obtained the El Dorado average.

SO, WHAT'S LEFT?

Yields, Yields, Yields

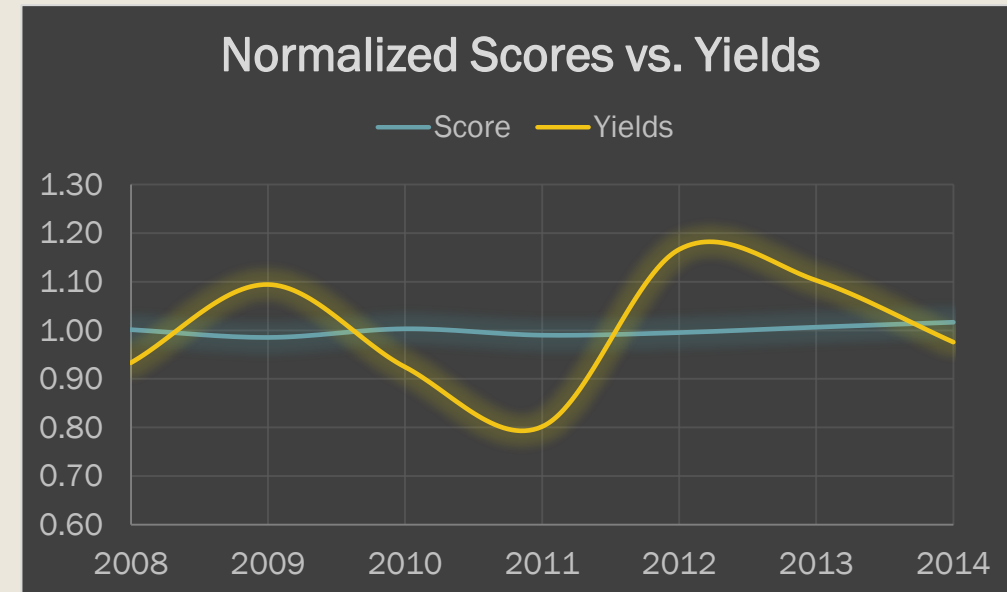


Yields vs. Quality

- 2.1 tons per acre!
- Viticultural evidence seems pretty clear.
- Let's look at score and yield data from El Dorado:

Vintage	2014	2013	2012	2011	2010	2009	2008	Mean
Price	\$31.44	\$34.08	\$35.61	\$28.45	\$29.40	\$23.91	\$25.45	\$29.76
Score	89.44	88.54	87.57	87.09	88.25	86.68	88.09	87.95
Yields	2.30	2.60	2.75	1.89	2.18	2.58	2.20	2.36

- Clearly, yields at the top of the historical range are acceptable.
- Likely that yields can go significantly higher, while maintaining quality.
- Higher yields may even boost scores.



Regression Analysis:

- Correlation = .0298
- P-value for yields as predictor of score = .9494.
- Coefficient for yields = -0.0922.

RECOMMENDATIONS

Always wear sunscreen, floss and don't congratulate yourself or berate yourself too much for your choices, since they're always half chance.

Recommendations for Growers

- Remember the fundamentals: Revenue – Expenses = Income.
- Remember that your winemakers – or their salespeople – create and enlarge the pie. Just make sure they continue to share it with you.
- Push on yields as much as you can. For winemakers, understand that, within certain bounds and weather-permitting, yields shouldn't harm quality. And, if that's the case, then higher yields are a win-win. It's the best way forward.
- Frankly, not everyone needs to be growing, as a business venture. Some people in this room probably shouldn't be.
- Others must understand that the wine industry can be fulfilling and profitable, even if it creates negative economic profit. And take comfort that the situation seems to be slowly improving in the long-term and that their asset may well be increasing in real value, too.

Questions?

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