

Financial Outlook for Agriculture

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Environment versus Execution

- **Risk premium or not?**
 - Demand growth
 - Supply growth
- **Relative performance**
 - Meaningless averages
 - A commodities type of attitude
- **US Economic environment**
 - Cost of money
 - Exchange rates
 - Energy drivers

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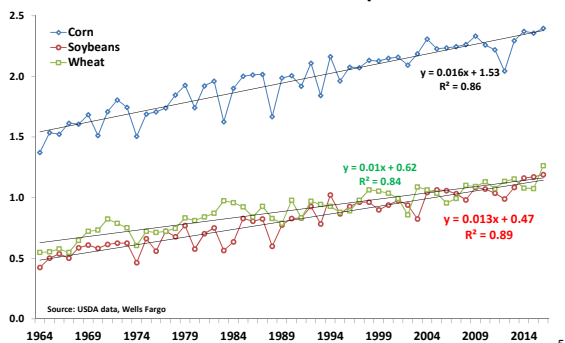
US Agriculture is too good

- **US Population growth**
 - Previous 10 years 0.9%
 - Forecast next 10 years 0.7%
- **US Yield growth**
 - Corn 1.6%
 - Soybeans 1.3%
 - Wheat 1.1%
- **US Food consumption**
 - Calories per person flat
 - Spending up 2-3% per year

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Even their structural change is interdependent

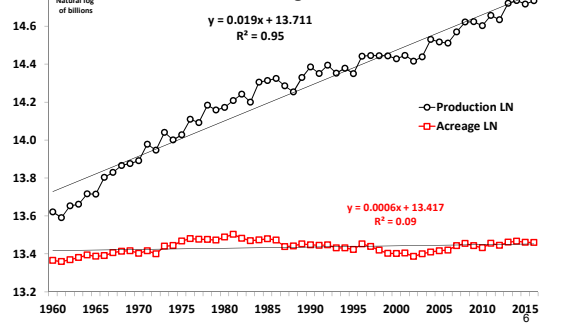
US Yields - LN of Metric Tons per Hectare



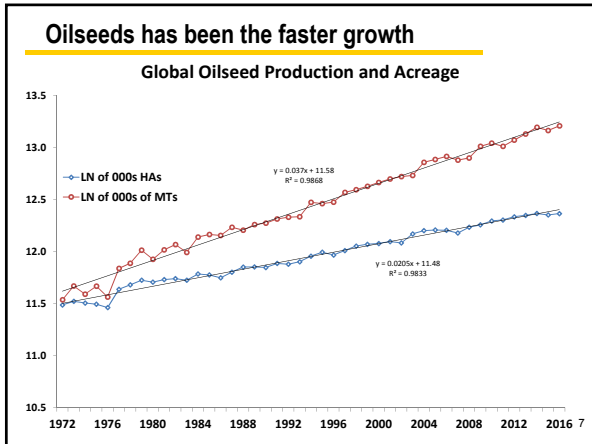
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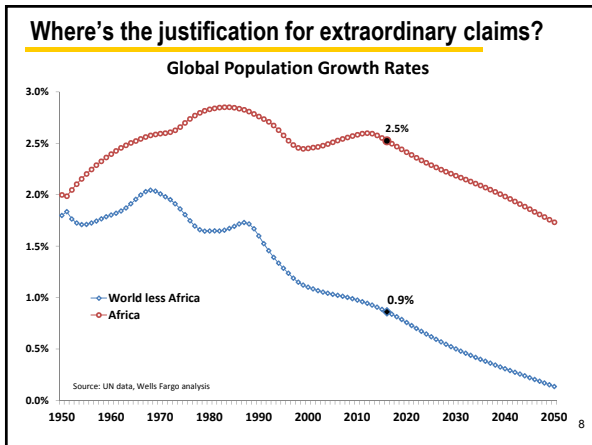
Global population growth is 1.1 percent

Grain Production Growth Doesn't Come From Acreage



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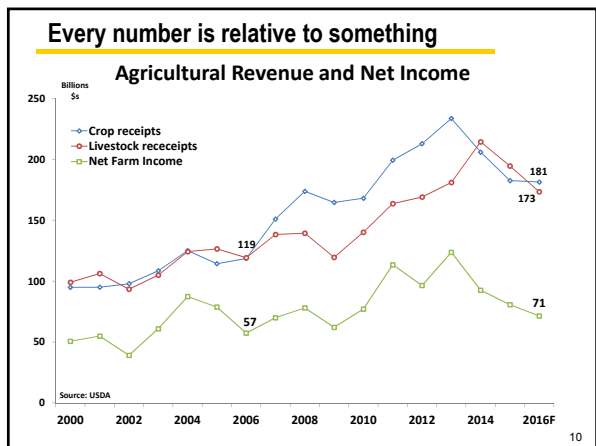


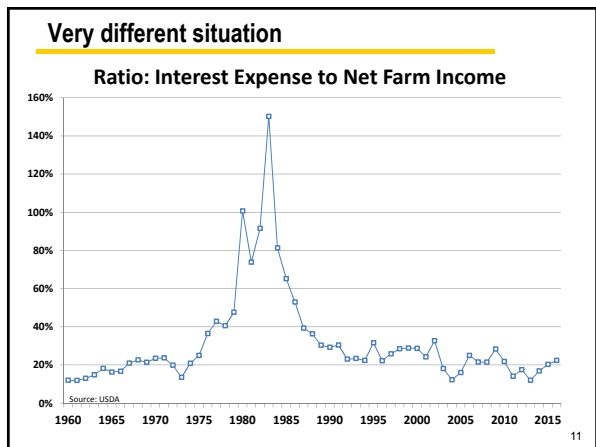
Everything is connected

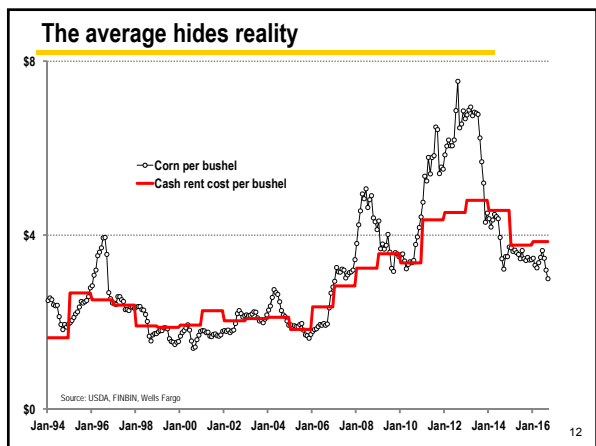
we just don't see how.

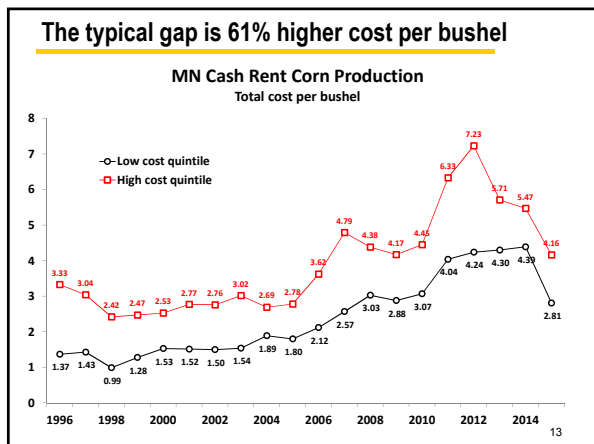
Connection corollary:
Nothing natural moves in
a straight line

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Cash rent is big drag on income

Financial Summary 2015 FINBIN

(Farms Sorted By Net Farm Income)

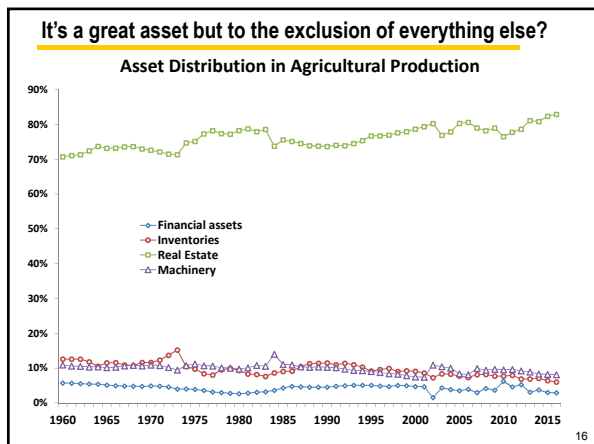
	All Farms	Low 20%	20- 40%	40- 60%	60- 80%	High 20%
Number of farms	3,309	661	662	662	662	662
Income Statement						
Gross cash farm income	811,422	1,213,822	391,849	403,874	589,944	1,458,230
Total cash farm expense	689,408	1,134,790	341,038	337,793	472,302	1,161,789
Net cash farm income	122,015	79,032	50,811	66,081	117,643	296,441
Inventory change	(24,068)	(133,229)	(27,710)	(10,121)	(2,522)	53,079
Depreciation	(58,345)	(79,280)	(33,005)	(32,554)	(46,431)	(100,485)
Net farm income from operations	39,602	(133,476)	(9,904)	23,406	68,689	249,035
Average net farm income	40,802	(133,570)	(8,824)	24,145	69,760	252,237
Profitability (cost)						
Rate of return on assets	0.9%	-5.3%	-2.1%	0.6%	2.7%	5.5%
Rate of return on equity	-1.2%	-14.6%	-7.2%	-1.7%	2.1%	6.5%
Operating profit margin	2.8%	-18.9%	-7.4%	1.9%	8.6%	15.9%
Crop Acres						
Total crop acres	954	1,264	543	574	846	1,542
Total crop acres owned	276	338	170	179	266	428
Total crop acres cash rented	621	848	334	358	523	1,041
Total crop acres share rented	57	78	39	37	57	73
Machinery value per crop acre	641	669	643	615	610	642

* U of MN Center For Farm Finances

If you are wrong on land, you're wrong on everything

Farm sector balance sheet, 2010-2016F
Nominal (current dollars)

United States	2010	2011	2012	2013	2014	2015	2016F
	Billions	Billions	Billions	Billions	Billions	Billions	Billions
Farm sector assets	\$ 2,171	\$ 2,319	\$ 2,638	\$ 2,776	\$ 2,949	\$ 2,910	\$ 2,846
Investments and other financial assets	\$ 135	\$ 107	\$ 139	\$ 86	\$ 111	\$ 88	\$ 84 3%
Investment in cooperatives	\$ 6	\$ 6	\$ 7	\$ 8	\$ 8	\$ 7	\$ 6
Financial assets and net accounts	\$ 130	\$ 102	\$ 132	\$ 78	\$ 103	\$ 80	\$ 78
Inventories	\$ 168	\$ 185	\$ 182	\$ 192	\$ 210	\$ 187	\$ 172 6%
Crops	\$ 57	\$ 62	\$ 65	\$ 60	\$ 62	\$ 53	\$ 51
Animals and animal products	\$ 91	\$ 101	\$ 96	\$ 111	\$ 128	\$ 118	\$ 105
Purchased inputs	\$ 20	\$ 21	\$ 21	\$ 21	\$ 20	\$ 20	\$ 15
Real estate	\$ 1,660	\$ 1,803	\$ 2,074	\$ 2,251	\$ 2,383	\$ 2,396	\$ 2,359 83%
Machinery and vehicles	\$ 208	\$ 224	\$ 244	\$ 247	\$ 246	\$ 240	\$ 232 8%
Farm sector debt	\$ 279	\$ 294	\$ 297	\$ 315	\$ 346	\$ 357	\$ 354
Real estate	\$ 154	\$ 167	\$ 173	\$ 185	\$ 197	\$ 209	\$ 214
Nonreal estate	\$ 125	\$ 127	\$ 124	\$ 130	\$ 149	\$ 147	\$ 141
Farm sector equity	\$ 1,892	\$ 2,024	\$ 2,341	\$ 2,461	\$ 2,603	\$ 2,553	\$ 2,492



- ### The land market is flawed because people are flawed
1. **Quasi-rational**
 1. Not rational
 2. Not irrational
 2. **Fight against**
 1. Over stating "economies of scale"
 2. Short-term costing on long-term assets
 3. It's never coming up for sale again
 3. **Treat investment dollars equally**
 1. Even out your ROI
 2. You need to do to real learning
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You can't fix the markets just yourself

	Corn following Soybeans (3000 acre operator)		
	Low Yield	Average yield	High yield
Corn yield	132	165	198
Variable cost	\$ 388	\$ 432	\$ 451
Machinery ownership	\$ 98	\$ 98	\$ 98
Family and hired labor	\$ 46	\$ 46	\$ 46
Cash rent	\$ 161	\$ 213	\$ 269
Total Cost	\$ 693	\$ 789	\$ 864

2016 Purdue Estimates

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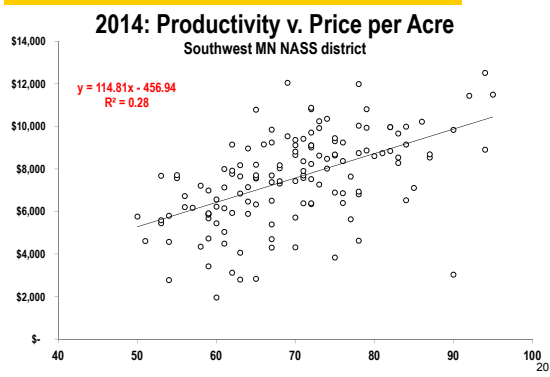
6 Expenses account for 90% of expense

In \$/bushel	Corn following Soybeans			
	Low Yield	Average yield	High yield	Spread low to high
Corn yield	132	165	198	66
Variable cost	\$ 2.94	\$ 2.62	\$ 2.28	\$ (0.66)
Machinery ownership	\$ 0.74	\$ 0.59	\$ 0.49	\$ (0.25)
Family and hired labor	\$ 0.35	\$ 0.28	\$ 0.23	\$ (0.12)
Cash rent	\$ 1.22	\$ 1.29	\$ 1.36	\$ 0.14
Total Cost	\$ 5.25	\$ 4.78	\$ 4.36	\$ (0.89)

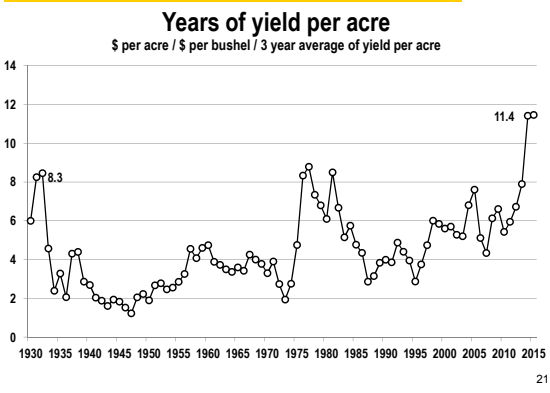
Wells Fargo insight

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This is just nuts



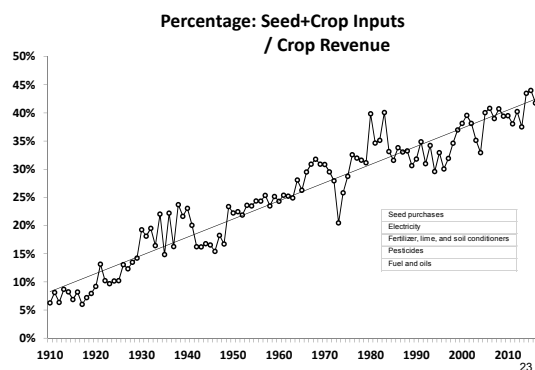
What is the "right" metric?



You only get paid for what you bring to the game.

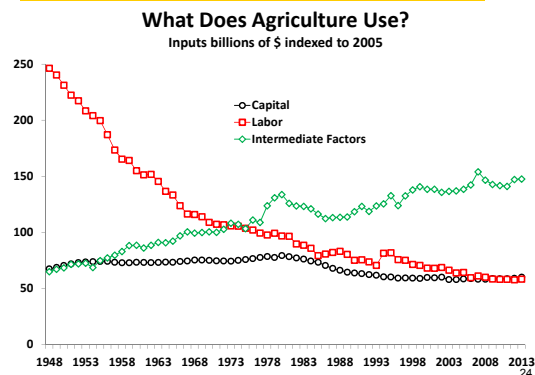
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Yield and efficiency → MAD

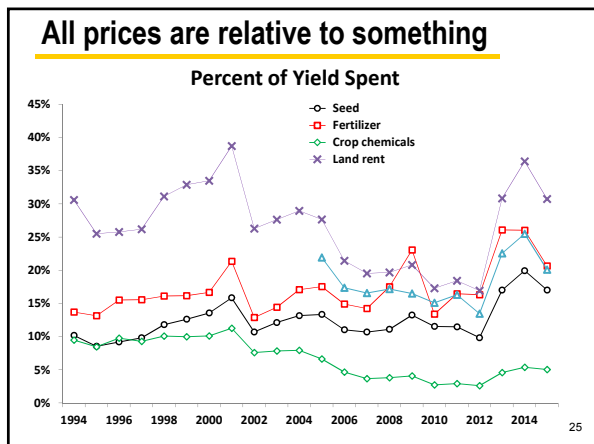


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Substituting technology for labor



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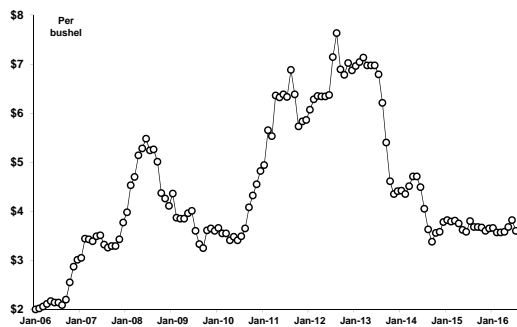
- ### Key Assertions
- **Wide spread in agricultural performance**
 - ◆ Gaps persist
 - ◆ Bottom performers exit
 - **Marketing won't save you**
 - ◆ Marketing ≠ Hedging
 - ◆ You can't out perform on it
 - **Production cost is a competitive advantage**
 - ◆ Skills vary
 - ◆ Discipline matter
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What does “unpredictable” mean to you?

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No one predicted this

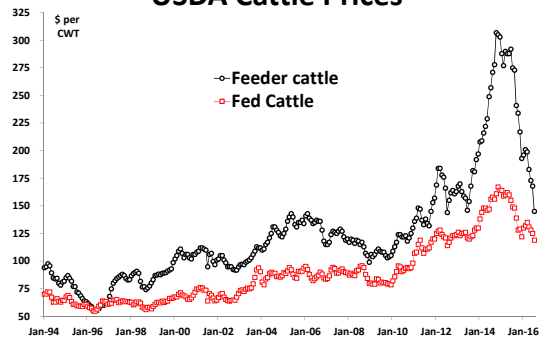
National Cash Corn Prices



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And, no one predict this either

USDA Cattle Prices

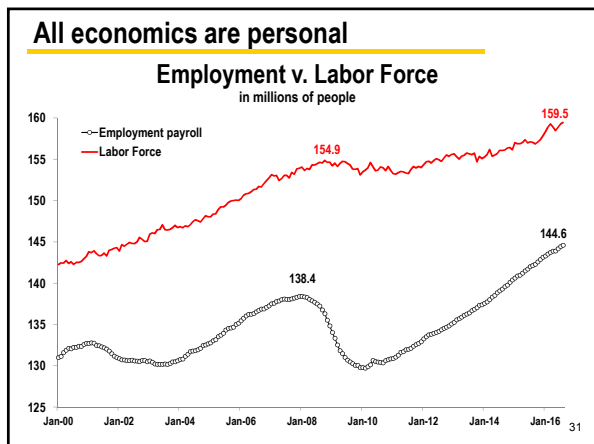


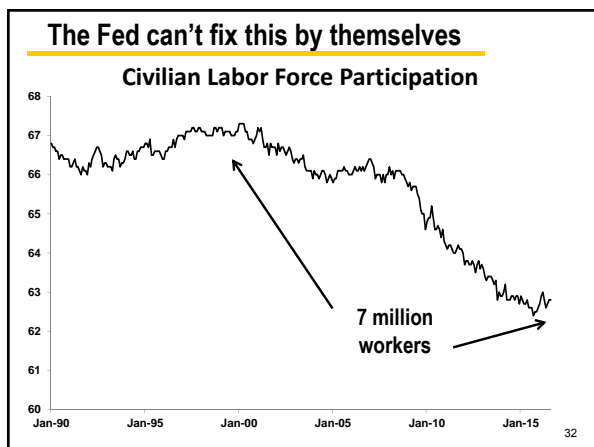
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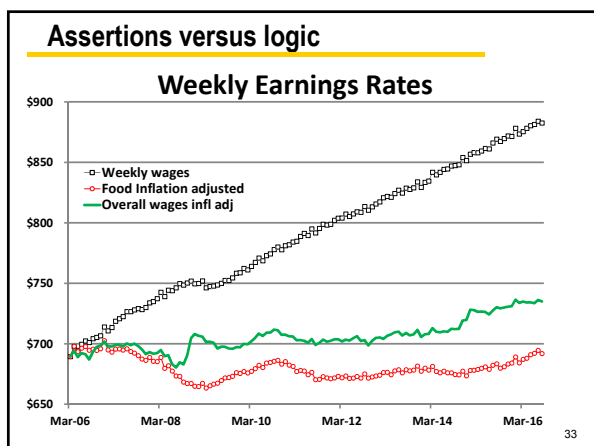
**The US economy is the fastest
turtle on the track**

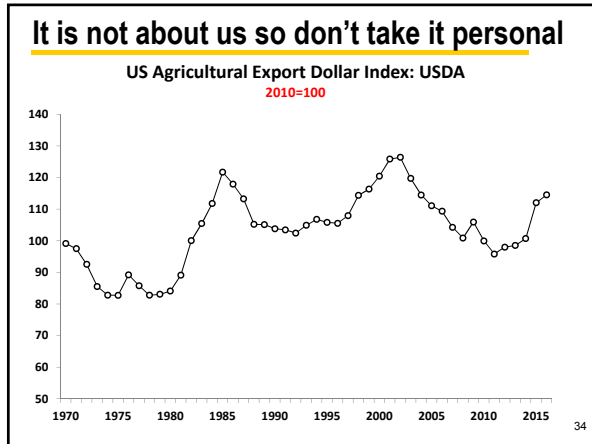
Facts remain in the
witness protection
program

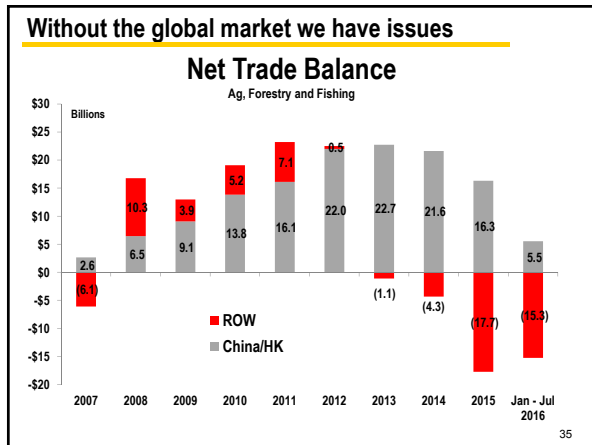
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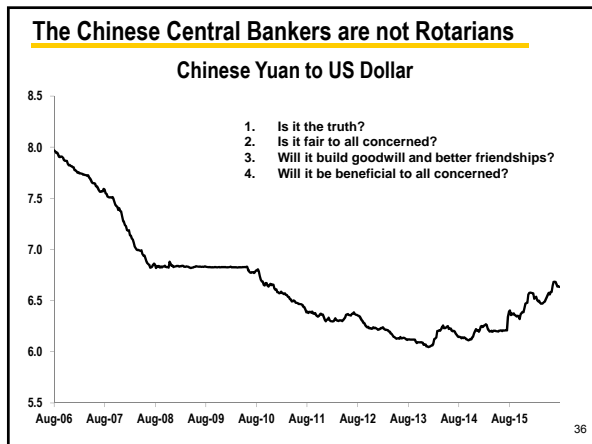


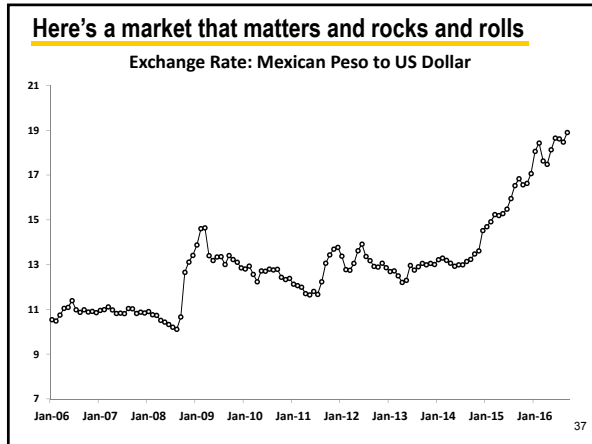








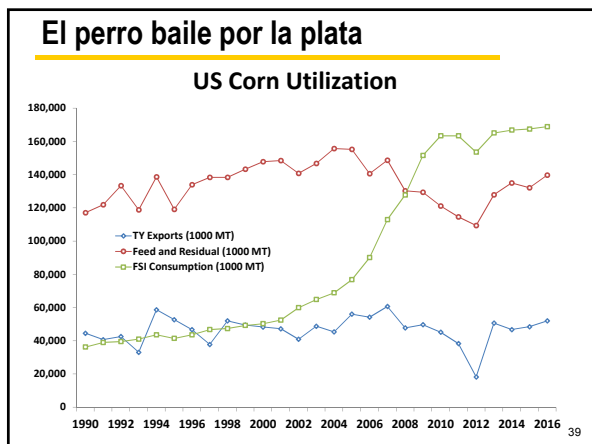


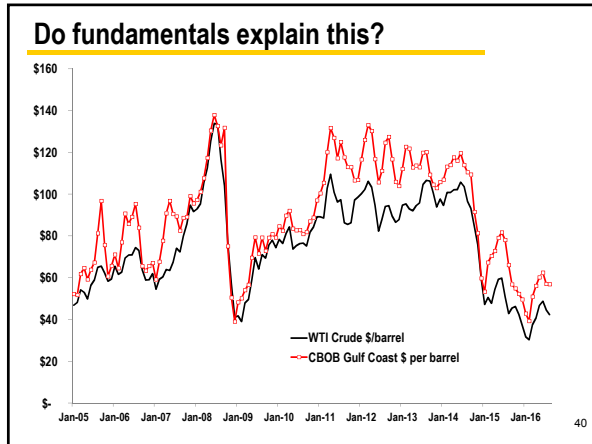


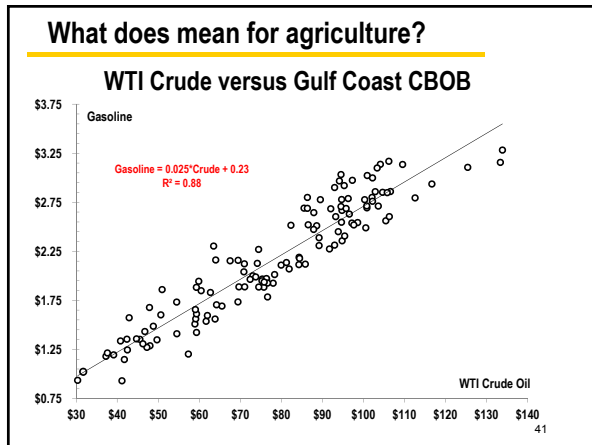
Ethanol disconnected agriculture from food

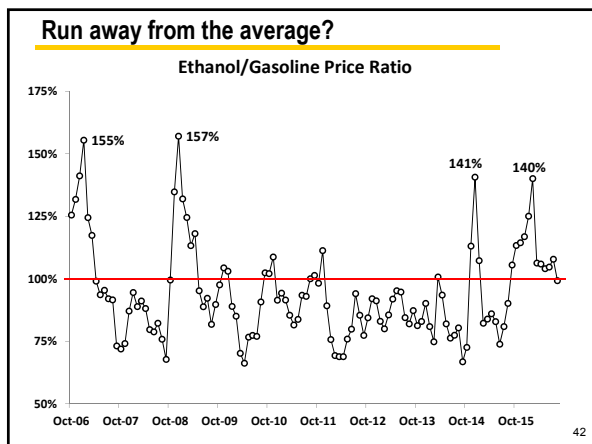
Love or hate it depends

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A commodity type of attitude

1. Don't try predicting your future

- 1. You'll be wrong anyways
- 2. You'll be wasting flexibility

2. Work against the "3 I's"

- 1. Ignorance
- 2. Indifference
- 3. Illiquidity

3. The "problem" is internal not external

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