

# Ethanomics: Adding Value for Ethanol Producers

| Nebraska Ethanol Board Annual Meeting |

April 9, 2010



Nebraska Ethanol Board

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# Firm Overview

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- ❖ Quantum Growth Group, LLC is a financial advisory and consulting firm that specializes in energy, agribusiness and industrials
  - Ethanol is a core competency where Quantum has global expertise
  - Quantum's past and present clients control over 810 MGY of active ethanol capacity
  - Christian Dobrauc has personally advised ethanol clients controlling nearly 1.2 BGY while at Quantum and other firms; one transaction was runner up for *Energy Deal of the Year*
- ❖ Quantum helps companies and their investors work through special situations including rebuilding the balance sheet or reorganizing the company
  - We engineer and execute strategies that preserve stakeholder value in times of financial turbulence
  - We believe that many good companies have broken balance sheets they can be repaired
- ❖ Quantum is unique in that it represents buyers of both growing companies and distressed assets in the US and abroad

# Practice Areas

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## Transaction Advisory

- Buy-Side M&A
- Sell-Side M&A
- Restructurings / Recapitalizations
- Private Placements

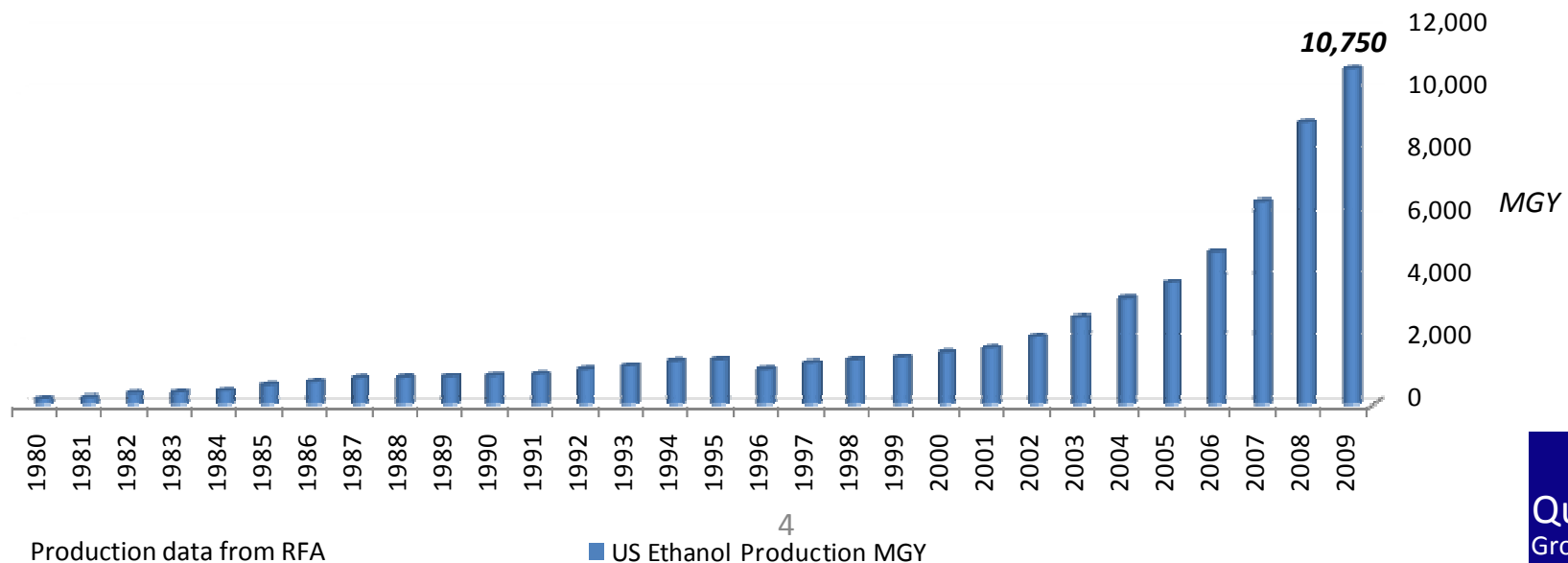
## Consulting

- Financial Modeling & Reporting
- Valuations
- Solvency Analysis
- Lost Profits / Forensic Analytics
- Treasury Planning & Credit Analysis

- ❖ Quantum has partnerships with investment banks, turnaround groups and consultants that it can leverage based on the size and scope of each engagement
- ❖ We have experience engineering solutions for complex transactions using creative structures to align interests of disparate stakeholders
  - Corporate sponsors, cooperatives, diverse bank syndicates, financial sponsors and strategic vendors

# Ethanol Industry Snapshot

- ❖ US ethanol production grew to a record 10.75 BGY in 2009 vs. 9.00 BGY in 2008 (see table below)
- ❖ Themes of 2009: (1) lock in profits through margin management as opposed to price speculation and (2) restructure the balance sheet through reorganization or consolidation
- ❖ Nearly 2.2 BGY of capacity was offline in April of 2009; over half is back online with more to restart
- ❖ 1.6 BGY of bankrupt VeraSun capacity has been consolidated
  - VeraSun gave the industry a black eye as a result of its discretionary hedging program; good assets + bad hedges + no liquidity = attractive acquisition opportunity
  - 1.1 BGY was ultimately acquired by refiners (Valero + Murphy Oil)
  - Valuations are correcting: Valero paid 94% more in December than the WestLB led bank group in April for the same two ASA 110 MGY plants formerly owned by VeraSun
- ❖ Current market conditions do not support new corn-based greenfield projects
  - Those willing to invest in ethanol must look to add-on technology



# Strategic Alternatives for Producers

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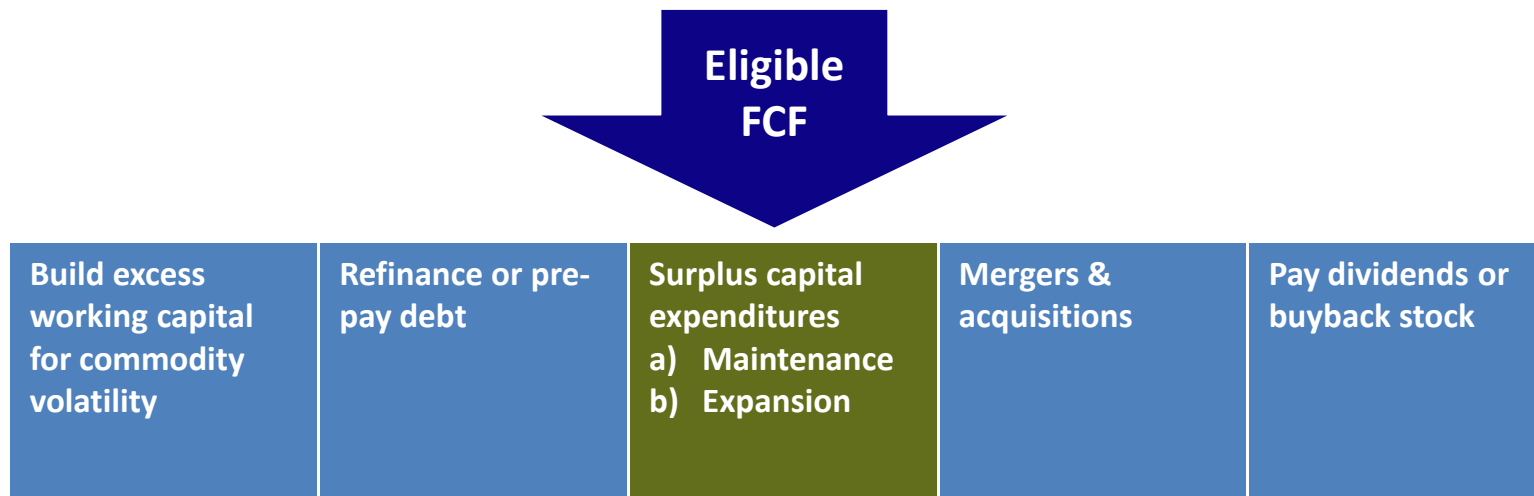
- ❖ **Fundamentals:** hedge only as far forward as you can lock in cash flow to service principal and interest payments
- ❖ **Restructure:** modify loans to anticipate spikes in commodity prices and/or add a layer of junior financing to increase working capital to prepare for volatility
- ❖ **Add-On Equipment:** purchase, lease or form JV for equipment that is accretive to cash flow and covenants (subject to bank group approvals)
- ❖ **M&A:** merge with or acquire assets to lower fixed cost structure, vertically integrate and/or diversify cash flow
- ❖ **Sell or Divest:** strategy is limited to producers with modest leverage due to recent enterprise valuations

# Cash Flow Allocation

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## Cash Flow Waterfall Example (plant with no subordinated debt):

1. Operations
2. Maintenance capital expenditures
  - a) Amount capped per covenants; does NOT include expansion capital expenditures
3. Interest & principal on senior debt
4. Working capital to satisfy covenants
5. Debt service reserve funding
6. Allowable tax distributions
7. Excess cash flow sweeps towards principal
8. Eligible free cash flow for distributions



# Leverage Effect & FCF

- ❖ Many ethanol plants were financed with \$0.90 to \$1.00/gal of amortizing debt; some plants with municipal or sub debt have higher leverage
- ❖ We stress test debt per gallon to show the range of Free Cash Flow
  - $FCF = EBITDA - \text{Maintenance Cap Ex} - P\&I$
- ❖ The chart below shows how quickly fixed charges can consume \$0.15/gal of EBITDA

## Debt Service Impact on EBITDA for 50MGY Plant<sup>1</sup>

Debt per gal	\$ -	\$ 0.25	\$ 0.50	\$ 0.75	\$ 1.00	\$ 1.25
Principal	-	(0.02)	(0.05)	(0.07)	(0.09)	(0.11)
Interest at 5.0%	-	(0.01)	(0.02)	(0.04)	(0.05)	(0.06)
<b>P&amp;I</b>	-	<b>(0.03)</b>	<b>(0.07)</b>	<b>(0.10)</b>	<b>(0.14)</b>	<b>(0.17)</b>
<b>EBITDA</b>	<b>0.15</b>	<b>0.15</b>	<b>0.15</b>	<b>0.15</b>	<b>0.15</b>	<b>0.15</b>
Maint Cap Ex	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
P&I	-	(0.03)	(0.07)	(0.10)	(0.14)	(0.17)
<b>FCF</b>	<b>0.13</b>	<b>0.10</b>	<b>0.06</b>	<b>0.03</b>	<b>(0.01)</b>	<b>(0.04)</b>
FCCR	7.5x	2.7x	1.7x	1.2x	0.9x	0.8x
P&I / EBITDA	0.0%	23.0%	46.1%	69.1%	92.1%	115.2%

EBITDA and FCF can vary substantially depending on leverage

P&I consumes 92% of EBITDA in this illustration of a 50MGY plant with \$50M of debt

(1) Assumes 9 years of level P&I payments at 5.0% interest and \$1.0M of maintenance cap ex per covenants for illustration.

# Project Structural Alternatives

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## Corn oil separation equipment (example):

1. Purchase equipment
  - a) Purchase outright with eligible FCF and/or RLOC
  - b) Purchase outright with new private placement (equity or debt)
  - c) Equity and bank loan, vendor financing or combination
  
2. Lease equipment
  - a) Shareholders purchase equipment in a special purpose entity (SPE) and lease to operating company
  - b) Lease equipment from commercial leasing company / financial sponsor
  
3. Joint venture with purchase option
  - a) Third party owns the equipment, markets co-products and potentially absorbs costs of utilities and opportunity cost for lost weight of distillers grains
    - Third party pays plant a profit share percentage based on a pre-determined formula or matrix
    - Profits are used as payments towards the future purchase of equipment
    - Plant has option(s) to buy the equipment from third party after a certain number of years

**Net Present Value (NPV) and Internal Rate of Return (IRR) analyses should be performed to prioritize prospective projects and their structural alternatives**

# Comparison of Alternatives

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## Purchase

- ❖ Highest up front cost in exchange for keeping 100% of profits
- ❖ Get depreciation and responsibility for maintenance
- ❖ Subject to approval of bank group (cap ex waiver, additional debt approval, etc.)

## Lease

- ❖ Very limited audience willing to lease to ethanol plants; would require insider involvement
- ❖ Leasing party will pass through their cost of capital plus a margin to the plant in lease payment
- ❖ No depreciation benefit; maintenance can be priced into the lease
- ❖ Leases still need approval from bank group (under most loan agreements)

## Joint Venture

- ❖ Lowest up front cost in exchange for a profit sharing program where a portion of profits are used as payments towards future purchase
- ❖ Owner gets depreciation and is generally responsible for maintenance
- ❖ Bank approval depends on the loan agreement and type of project

# Conclusions

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- ❖ The marginal cost of production will decrease over time; add-on projects can help the producer stay competitive in an evolving industry
- ❖ Capital projects and their structural alternatives should be rigorously evaluated and prioritized using NPV and IRR analyses
- ❖ Existing bank group will require in-depth financial projections that stress test commodity prices, fixed and variable costs and their impact on margins and covenants
- ❖ New equipment should be accretive to covenants post-integration
  - Fixed Charge Coverage Ratio, Tangible Net Worth, Working Capital, etc.
- ❖ Legal risks should be addressed where patent risk exists (i.e. corn oil separation equipment)
  - Indemnification and other potential provisions
- ❖ Technology and integration risk should be insulated
  - Performance guaranty / warranty from an experienced company
- ❖ *Although new financing is very scarce, creative structuring and careful planning can help quality projects cross the finish line*

# Contact Information

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# Appendix

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# Professional Biography

- ❖ Christian Dobrauc is a Director of Quantum Growth Group, LLC, a financial advisory and consulting firm that specializes in energy, agribusiness and industrials
  - Ethanol is a core competency: Quantum's past and present clients control over 810 MGY of US active capacity

- ❖ **Prior Ethanol Transaction Experience:**

- 1.2 BGY of M&A, financial advisory and consulting mandates including:
  - Sale of The Scoular Company's 100MGY ethanol project in Plainview, TX to White Energy – *Energy Deal of the Year, Runner Up*
  - Purchase of Great Lakes Cooperative by Green Plains Renewable Energy – Valuation Advisor
  - Private auction of ethanol holding company with 220MGY of capacity
  - Financial advisor to a 110MGY company seeking bridge financing & restructuring
  - Financial advisor to a 55MGY company evaluating a sale, merger and expansion



- ❖ **Prior Ethanol Speaking Engagements**



- ❖ **Prior Ethanol Publications**

