

THE PULSE OF AGRICULTURE AND AGRICULTURAL LENDING



Dr. David M. Kohl

Professor Emeritus, Agricultural and Applied Economics
Member of Academic Hall of Fame, College of Agriculture & Life Sciences
Virginia Tech, Blacksburg, VA
Email: sullylabvt@gmail.com

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Dashboard of Numbers That Matter in the U.S.

- \$4.00+ average for gasoline
- \$5.00+ average for diesel
- \$100+ barrel of West Texas Intermediate (WTI) crude oil
- Rule of 15-week duration



The Numbers That Matter

(1)

- 80% of farm/ranch expenses impacted by oil price
- 60% of general economic expenses impacted by oil price
- Fuel & fertilizer prices up 40 to 55%
- Commodity prices up 8 to 15%
- Fertilizer prices up 40 to 55%
- Tail risk
 - Infrastructure destruction
 - Continuous breakdown of Peace Agreement

IMPORTANT

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The Numbers That Matter

(2)

- Oil Recession
- California economy imports one million gallons of fuel daily; the 5th largest global economy is vulnerable.
- Large amounts of potash - Canada
- Large amounts of phosphate - Morocco
- Just in time management to just in case management

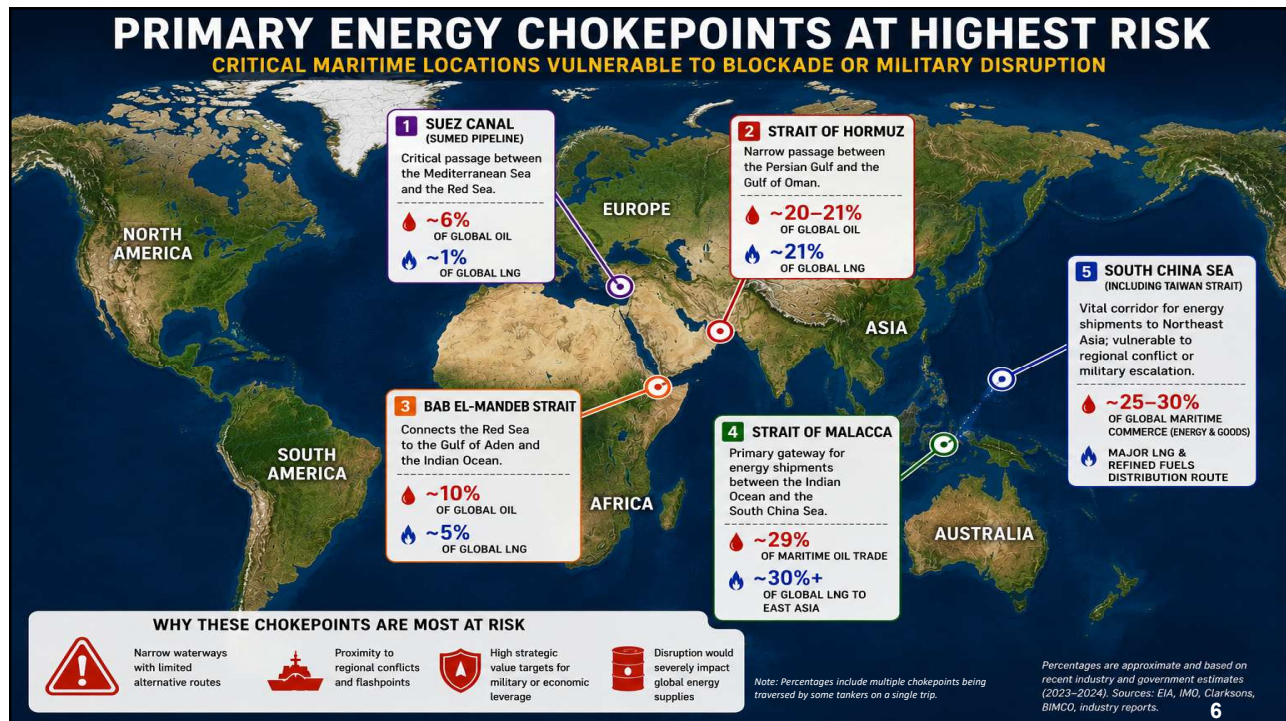
IMPORTANT

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Just in Case Management Mindset

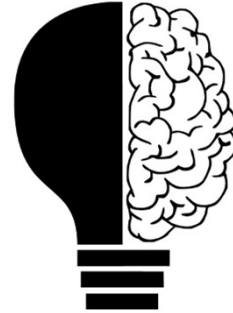
- Strong working capital reserves
- Financial scenario planning for objective vs. emotional decision making
 - Price
 - Cost
 - Production
 - Interest rates
- Marketing and risk management plan
 - Plan, execute, monitor
- Advisory team should be “coachable”
- Manage the controllables, manage around the uncontrollables

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Split Personality in Agriculture

- Grain, Row Crop & Specialty Crops
 - Cyclical
 - Structural
 - Auto industry like 1970s
 - Two in Ten Year Rule
 - Five in Eight Year Rule/management mindset
- Beef/Livestock/Value Added Diversification
 - 3-6 sources of revenue: sweet spot for resiliency, agility & nimbleness
 - Black swans / consumer inflation fatigue



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Producers Pass the 5 in 8 Years Sniff Test

- Marketing & risk management program
- Reducing marginal farm ground
- Eliminating unproductive assets
- Diversifying revenue streams
- Reducing family living
- COP & BE



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Due Diligence in Use of Government Payments Checklist

- Pay down LOC and accounts payable
- Upgrade of machinery, equipment & facilities
- Three-year trend analysis of government payments to net income
 - Payment as percentage of net income
 - < 25% green
 - 26-60% yellow
 - >60% red
- Down payment for land acquisitions & to supplement cash rents for competitors
- Family living, non-farm capital expenditures
- Other

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Agricultural Exports Between the U.S., Mexico and Canada, in USD



Source: USDA ERS, WorldBank.

Note: Minor discrepancies exist across countries due to differences in how agricultural products are defined and classified

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North America Strong!!

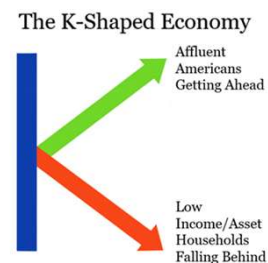
- 29.6% of the global economy
- 6.3% of the global population
- Canada/Mexico natural resources & demographics
- 17% of USA's exports go to Canada
- 75% of Canada's exports go to USA
- 16% of USA's exports go to Mexico
- 80% of Mexico's exports go to USA
- Fragmented economies



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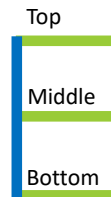
K Shaped, Two Speed U.S. Economy

- Higher earning consumers spending more due to stock market earnings and elevated property values
 - Vacations, premium goods, expensive experiences
- Lower income consumers struggling to afford necessities:
 - Housing
 - Energy
 - Food
 - Gas



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E Shaped Economy



- Three tiers of consumers instead of two
- Top tier (top 20% of earners) account for 60% of consumer spending
- Wider gap now between high income versus other consumers
- Middle tier is now “treading water” or spending cautiously
- Bottom tier is now taking on more debt than ever before

Source: <https://www.cnn.com/2026/03/06/e-shaped-economy-replacing-k-shape-2026.html>

U.S.A. Economy Snapshot: ALICE

- ALICE- Asset Limited, Income Constrained, fully Employed
- Less than 5% spending
- Stimulus checks during & post pandemic
- Now living paycheck-to-paycheck; generating overdrafts
- Consumer credit card debt buildup
 - Along with other unsecured subprime lending, credit card debt is an increasing “shock absorber” for ALICE borrowers
- Total credit card debt = \$1.3 trillion (ALICE estimate: \$500B)
- Total auto debt = \$1.7 trillion (ALICE estimate: \$650B)
- Highest delinquency rate on credit cards & auto loans since 2012

U.S.A. Economy Snapshot: HENRY

- HENRY- High Earners, Not Rich Yet
- \$100,000 - \$500,000 household earnings
- Significant level of graduate school debt
- Some HENRY's are priced out of the housing market
- Lack of stock & real estate appreciation
- High levels of consumer spending & buying experiences
- Younger HENRY's are vulnerable to job layoffs and AI replacement

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U.S.A. Economy Snapshot: HERMAN

- HERMAN: High Earners, Rich, Mobile, Appreciated Net Worth
- 10% of population, 49% of consumer spending from 36%
- Household or business wealth, paper wealth accumulation \$1 million to \$10 to 25 million
- Older demographic, frequently above 60 years of age
- Spent 58% more in the last 4 years vs. 21% inflation increase
- HERMANs account for one third of gross national product
- Top 20% of earners, net worth has increased \$35 trillion or 45% since 2019; increasing \$14 trillion over the bottom 80%

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Fiscal & Monetary Policy

- \$40 trillion debt currently, \$20 trillion debt in 2020
- Projected \$2 trillion deficit for 2025-2026 fiscal year
- Federal Reserve position changes: A rock & a hard spot between rate increases/decreases for 2026
- Government fiscal spending
- Federal Reserve monetary policy
 - “The magic wand”
- The balance of inflation, unemployment & economic growth

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Bond Market & Treasuries: Onward & Upward

- Japanese currency intervention by U.S.
- U.S. uncontrollable federal debt & deficit
- Debt hangovers in other developed nations
- Competition for AI capital infrastructure buildout
- Continuous wars/conflicts around the globe
- Supply chain disruption of food & energy
- Data center AI productivity??



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Key Economic Benchmarks: Bonds & Treasury

- 10-year Treasury bond above 5%
- 30-year Treasury bond above 6%
- Interest on national debt above military budget
- Printing money is reducing U.S. dollar's buying power
- Implication that inflation causes higher long term interest rates globally

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Interest Rates for 2026

- Potential interest rate cuts/increases
- Inflation wild cards
 - Tariffs lag effect
 - Sector dependent
 - Insurance & medical costs
 - Energy & A.I.
 - Fuel & fertilizer
 - Federal Reserve
- Currency valuation and the Crypto Effect
- Funding of debt



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Trends That Shape the Ag Industry Globally

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Rise of the Global South

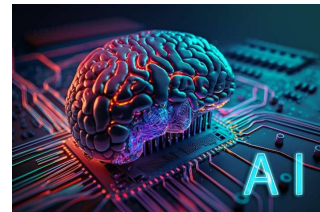
- China's Belt & Road Initiative
 - \$1.5 trillion, 70 countries
 - Intense competition:
 - Manufacturing
 - Agriculture
 - Technology
- BRICS
 - Brazil, Russia, India, China & South America (original membership)
 - Now includes over 20 nations including Iran
 - Additional countries desiring membership



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AI Perspectives

- **AI won't take your job but someone with AI knowledge might**
 - **Years, skills & interconnectedness**
- AI moving at warp speed: 1st & 2nd inning
- AI Human IQ
 - 80 in 2018
 - 100 in 2020
 - 124 in 2024
 - 1200 in 2028
- Unintended consequences: ability to influence
- Stifles innovation & critical thinking
- Societal acceptance
- AI 911



Source: AI Slides Compiled by Lynn Paulson, Senior Vice President, Bell Bank

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Regenerative Agriculture

- Water, soil, plant, animal, human, environment



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Food & Relationship with Food of the Future

- GLP-1 shot: 10 to 15% of adult Americans
- GLP-1 pill version: May increase to 50% of adult Americans
- Absorption of protein is specific to individual's genetic makeup:
 - A pill to boost absorption is critical for people over 60 with loss of muscle mass
- Protein, fiber, exercise & lifestyle



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Perspectives on Land Values

- 2032 effect
- Waiters vs. legacy
- \$100,000 Rule
- Consolidation: Dysfunctional farm size
- Opportunity cost
- 21% Rule
- Rule of 78/88



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Wisdom by the Numbers



- Dave's "Double Dip of Death" (3 year trend analysis)
 - Debt to asset ratio >50%
 - Operating expense/revenue ratio (excluding interest & depreciation) >80%
- Triple Witch (3 year trend analysis)
 - Debt to asset ratio >50%
 - Operating expense/revenue ratio (excluding interest & depreciation) >80%
 - Government payments/net income >50%
- Quadruple Canyon (3 year trend analysis)
 - Debt to asset ratio >50%
 - Operating expense/revenue ratio (excluding interest & depreciation) >80%
 - Government payments/net income >50%
 - Business IQ <30

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Lessons Learned From the Big One: Red Flags in Large Loans

(1)

- Environment & Conditions
 - Consolidation of agriculture, agribusiness & ag lending
 - Corporate culture: profit over people & relationships
 - Technology in credit scoring systems
 - Home runs often lead to strikeouts
 - Strong base hits throughout the game lead to credit quality & sustainable growth
 - Slogan: Don't check your brains at the door!



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Lessons Learned From the Big One: Red Flags in Large Loans (2)

- Lack of due diligence
 - Trust but verify
 - Inspection of assets & liabilities
 - Ghost cattle, grain & other commodities
 - Inspections skipped, too busy, trusted borrower
 - Slogan: "Good land, good man, good luck."
- Financial deception
 - Cooking the books
 - Two or three sets of books: taxes, legal entities, government payments
 - Assets comingled with other owners
 - Partner awareness: watch partner who controls the books
 - Slogan: "Follow the money."



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Lessons Learned From the Big One: Red Flags in Large Loans (3)

- Traditional private equity financing
 - Funds diverted to pay expenses vs. capital expenditures
 - Terms of agreements
 - Due diligence of the funding
 - Slogan: "Quick fix capital."
- Diversion of funds
 - Lake houses, aircrafts, boats, second & third homes
 - Funding other business entities
 - Diversion of funds during a forensic audit
 - Assets sometimes sold 30 cents on the dollar
 - Slogan: "Wished I had known earlier."



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Lessons Learned From the Big One: Red Flags in Large Loans

(4)

- Chasing hot industries
 - Catfish, llamas, emus, ostriches, almonds, wine grapes, hemp
 - Hype & expectations don't meet realities of markets, the investment required or owner expectations
 - High return expectations, reputational risk
 - Slogan: "If it grows too fast, it's a weed."
- Big loan for growth & bonuses
 - Incentive programs for relationship officers, managers, CEOs without common sense
 - Complexity grows with multiple entities, traditional, non-traditional sources of credit, credit cards
 - Loan pools & capital markets
 - Communication challenges: owners, investors, lenders
 - Strong personalities on steroids
 - Slogan: "Quick money builds egos."



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Lessons Learned From the Big One: Red Flags in Large Loans

(5)

- Art & Science
 - Economic & financial ratios are lag indicators
 - Non-financial factors move credit in a negative or positive direction twice as fast.
 - Incompetent management, board of directors can also move credit to deteriorate twice as fast
 - Financial statements don't have answers but the questions to be asked & answered:
 - How does the business make money?
 - Is it reoccurring or non-reoccurring?
 - Slogan: "Beware of the one hit wonder!"



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Lessons Learned From the Big One: Red Flags in Large Loans

(6)

- First loss is the best loss
 - Good money following bad money
 - Outside capital financing or friend's money
 - Focus on home run rather than base hits
 - Request for working capital
 - Slogan: "Fail fast, learn faster!"



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Balance Sheet Troubleshooting

- Accounts payable under-reported in number & amount
- Misuse of lines of credit
- More than seven sources of credit
- Current assets with no marketing & risk management plan
- True working capital timing, sales commitment
- Credit card debt balances: business & personal
- Quality of machinery & livestock
- One entity providing capital to other entities
- Deferred tax liability on sale of current assets
- Other



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Playing Defense vs. Risk

- Defensive Line = Cash Flow & Profits
- Linebackers = Working Capital
- Pre-Safeties = Equity
- Safety = Collateral



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The Five Percenter: 2035

“The opportunity for business and personal prosperity is not about the size, the enterprise or the next big thing. It is about being a ‘five-percenter,’ meaning being a little better in many components of production, operational efficiency, marketing, risk management, finance, human resources and in the focus on your values and goals.”



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Three-Dimensional Management Mindset: IQ, EQ & AQ

- Business IQ Four Pillars (Management Mindset)
 - Production excellence/cost efficiencies
 - Cost management
 - Marketing & risk management
 - Capital & human efficiency
- Business EQ (Emotional Intelligence)
 - Interdependent vs. independent
 - Return on relationship (ROR)
 - Hire for the three "A's" of business culture
 - Glue leadership
 - Warrior vs. worrier
- Business AQ (Adaptability Quotient: Connect the Dots)
 - Assessment
 - Adaptability
 - Accountability
 - Alternatives
 - Asynchronous
 - Apprenticeship

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Elite Managers Combine All Three

They:

- Analyze with discipline (IQ)
- Lead with clarity (EQ)
- Execute over excuses with resilience (AQ)

IQ

EQ

AQ

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Business IQ: Management Factors

Critical Questions for Crucial Conversations

Farmer Checklist	Your Score	Green (3 points or 4*)	Yellow (2 points)	Red (1 point)
1. Knows cost of production		Written	In head	No idea
2. Knows cost of production by enterprise		Written*	In head	No idea
3. Goals - business, family, & personal		Written*	In head	No idea
4. Record keeping system		Accrual adjusted	Schedule F (one & done)	No idea
5. Projected cash flow		Written*	In head	No idea
6. Financial sensitivity analysis		Written*	In head	No idea
7. Understand financial ratios, break evens		Written*	In head	No idea
8. Work with advisory team and lender		Yes*	Sometimes	Never
9. Marketing plan written and executed		Yes	Sometimes	Never
10. Risk management plan executed		Yes	Sometimes	Never
11. Modest lifestyle habits, family living budget		Yes*	Sometimes	Non existent
12. Written plan for improvement executed & strong people management		Yes*	Sometimes	Non existent
13. Transition plan/Business Owner plan		Yes	Working on plan	Non existent/controversy
14. Educational seminars/courses		Yes*	Sometimes	Never attend
15. Attitude		Proactive	Reactive	Indifferent
*Extra Points: - Progressive Business may receive 4 points for #2,6,7,8,14 - Struggling Business Attempting Turnaround may receive 4 points for #3,5,8,11,12 (See pg. 2 for Progressive and Attempting Turnaround definitions)		Score 35-50 24-34 <24	Overall Analysis Strong management rating, strong potential for resiliency & agility Moderate management rating, potential issues in resiliency & agility Weak management rating, potential major issues in resiliency & agility	

2024 Version - Developed by: Dr. David M. Kohl, Professor Emeritus, Ag & Applied Economics, in cooperation with Dr. Alex White, Dairy Science, Virginia Tech

Business IQ Exercise

- After completing the Business IQ: Management Factors Scorecard, what are three areas/points in your business that you will continue and three areas/points for improvement?

Three areas/points to continue:

- _____
- _____
- _____

Three areas/points to improve:

- _____
- _____
- _____

Avoid the Bad ABCs of Business Culture

- A = Arrogance
- B = Bureaucracy
- C = Complacency
- $ROP \times ROR = ROA \ \& \ ROI$
- People over profit is a winner & competitive advantage for the greater good



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Peak Performing Agricultural Bank

- Where employer of choice aligns with employees of choice: Three A's
- Culture: Balance the head & heart
- Training & education driven
- Balance of high tech/high touch
- $ROP \times ROR = ROA \ \& \ ROI$



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Q&A with Dr. Kohl

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Dr. David Kohl's Contact Information:

Office:

(540) 961-2094
Alicia Morris

Scheduling:

(540) 493-2724
Angela Meadows

Email:

sullylabvt@gmail.com

Online Articles:



- Farm Progress Weekly Article:
<https://www.farmprogress.com/author/david-kohl>
- Ag Trends & Insights Videos
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