



The Precision Ag Retailer of Tomorrow

Introductory Remarks
Before Retail Precision Programs Session

Context

“Failure is NOT Fatal, but Failure to CHANGE can be.”

- John Wooden, American Basketball Coach

“Standing still is the fastest way of moving backwards in a rapidly changing world.”

- Lauren Bacall, Actress

Agenda

1. Provide an independent analysis of the State of Ag Retail
2. Discuss drivers of change and a framework for transformation
3. Provide the rationale for “why change, why now and how”
4. Hear expert views from three panelists
5. Q&A

My Thesis

The Time to Transform is Now

- The upturn in grain prices provides an ideal opportunity for business model transformation
- Numerous technologies exist to power Precision Ag 4.0 (Precision + Digital Agriculture)
- Partnerships and joint ventures offer a path forward

Failing to Evolve is Dangerous

- Does your business model look forward or defend the past?
- Remember the 5 most expensive words in strategic planning: **“This time will be different”**
- Review patterns in other industries: **Don’t Make the Kodak or Netflix mistakes**

Digitally-Powered “Precision as a Service” = Future for Ag Retail

About Me



Kenneth Scott Zuckerberg

CoBank, ACB

Lead Industry Analyst
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PROFILE

- Institutionally-trained securities analyst and investor
- Proven track record of return and strategic value creation
- Subject matter expert in food, agriculture, finance, technology

CAREER

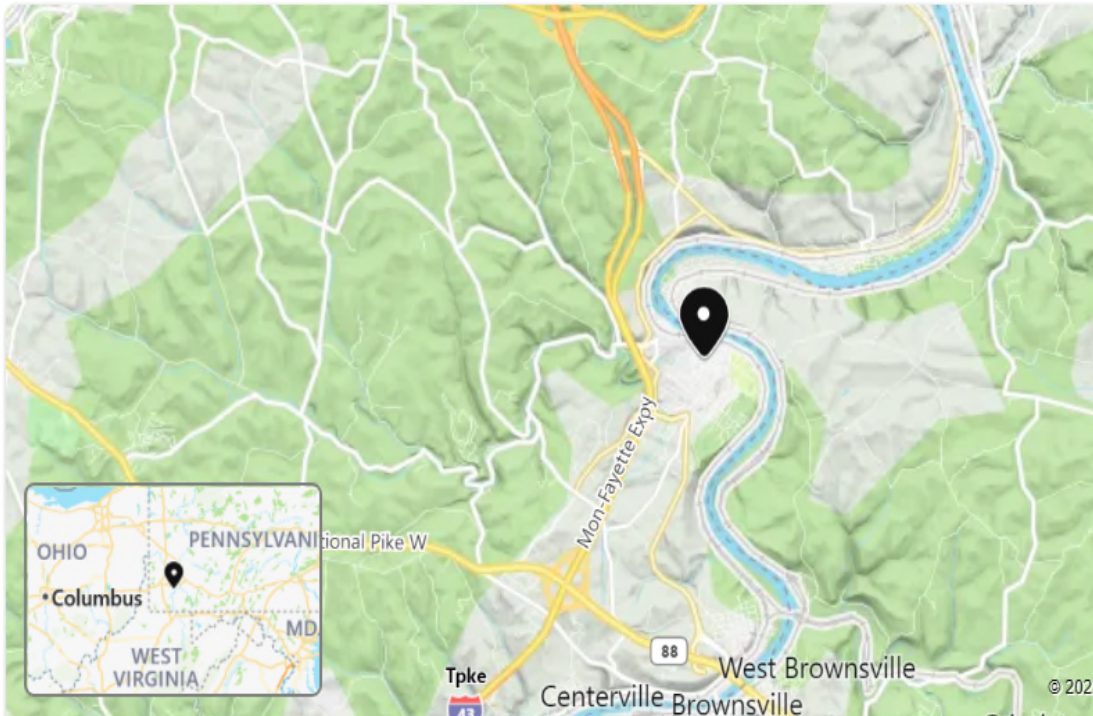
- Lead Economist & Strategist, CoBank ACB
- Sector Manager, Food & Ag Industry Advisors, Wells Fargo, Executive Director, Rabobank Research
- Senior Managing Partner, Carlan Advisors Group, Senior Analyst Lazard Asset Management, Smith Barney, Moody's, GEIC)

EDUCATION

- Candidate for Master in Law (ML), University of Pennsylvania
- Graduate of University of Pennsylvania / Wharton General Management Program (GMP)
- Bachelors of Science in Finance, University of South Florida

My Interest in Agriculture

Mom was born on farm in California,
Pennsylvania



California, PA

bing.com/maps

I grew up down the street from Cardinal
Garden Center (Springfield, New Jersey)



Ag Retail Sector Assessment

Industry SWOT Analysis

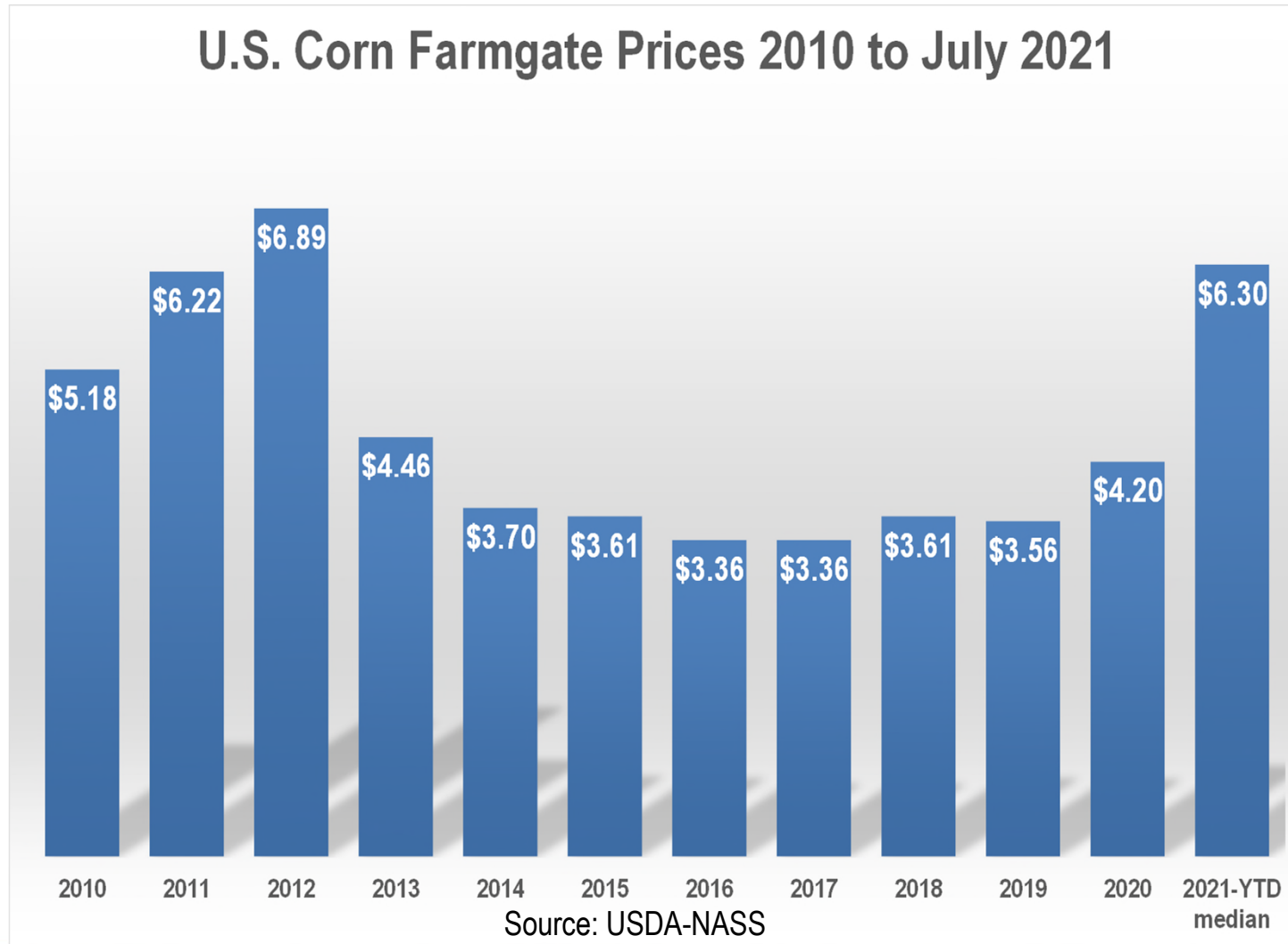
Strengths / Opportunities

- Retailers maintain a privileged position of trust
- Positive earnings leverage during cycle upturns
- Stable product demand
- Increasing demand for value-added agronomic advice (sustainability is +)
- Technology can lower costs and improve the customer experience

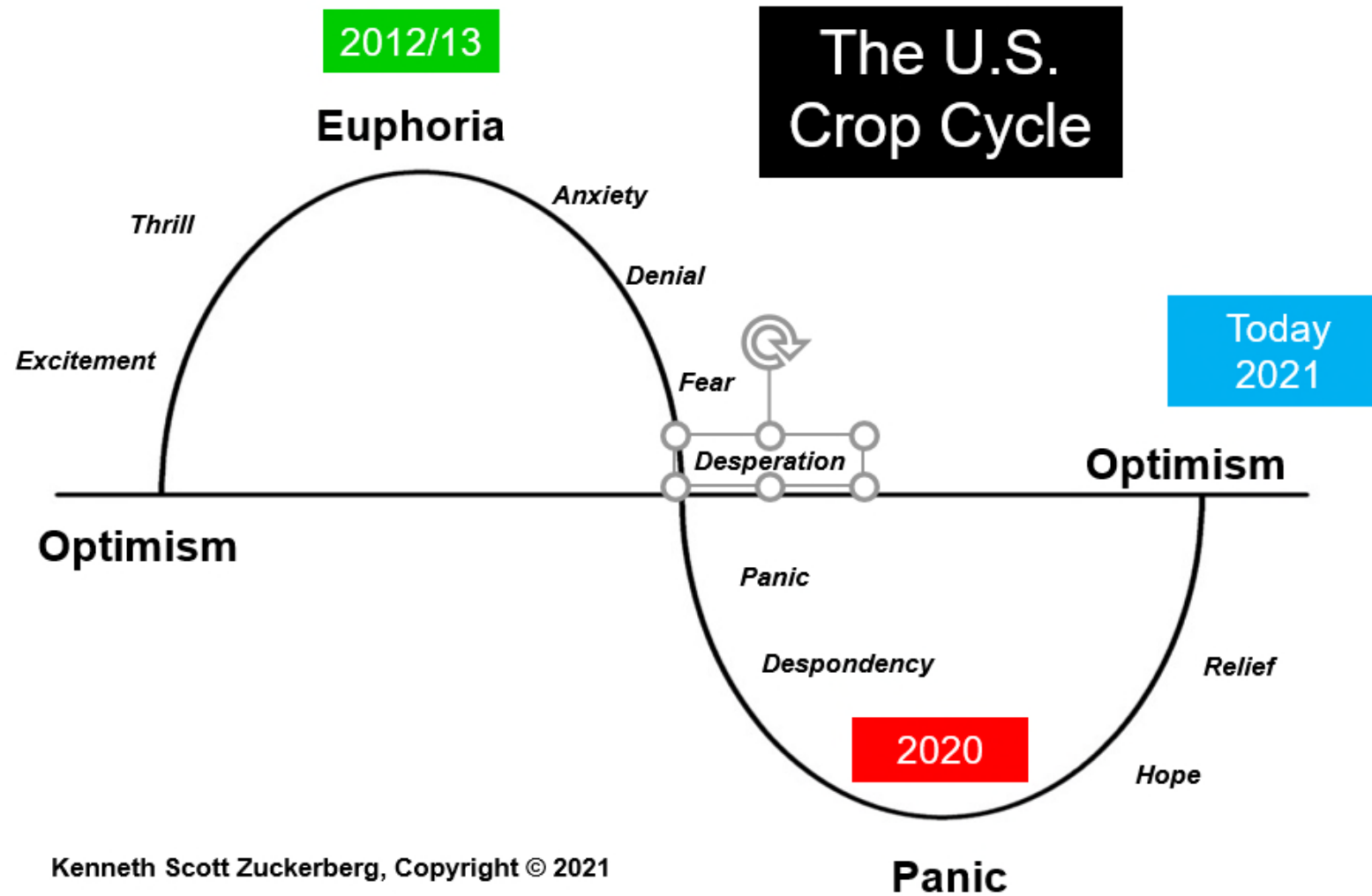
Weaknesses / Threats

- Crop cycle is tough (2 up years, 5 down years)
- Fertilizer and chemical price volatility results in unstable revenues
- Suppliers control terms of trade
- Buyers have growing purchasing power especially as farms get larger
- Products and services are highly commoditized ([Opportunity Lives Here](#))

The Crop Cycle – In Grain Price Terms



The Crop Cycle – In Emotional Terms



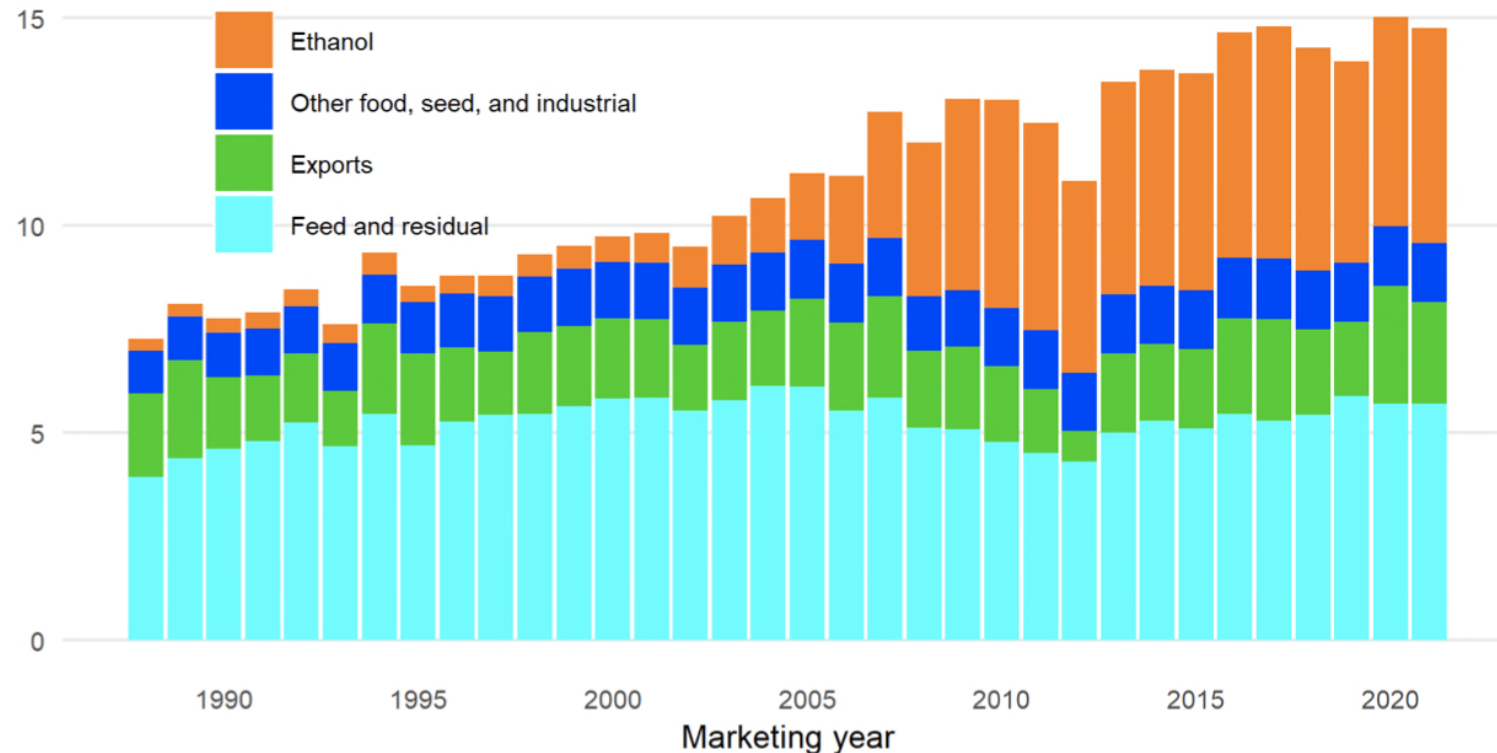
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Selected Drivers of Change:

Crop Mix – Are We Near Peak Corn?

U.S. corn utilization

Billion bushels

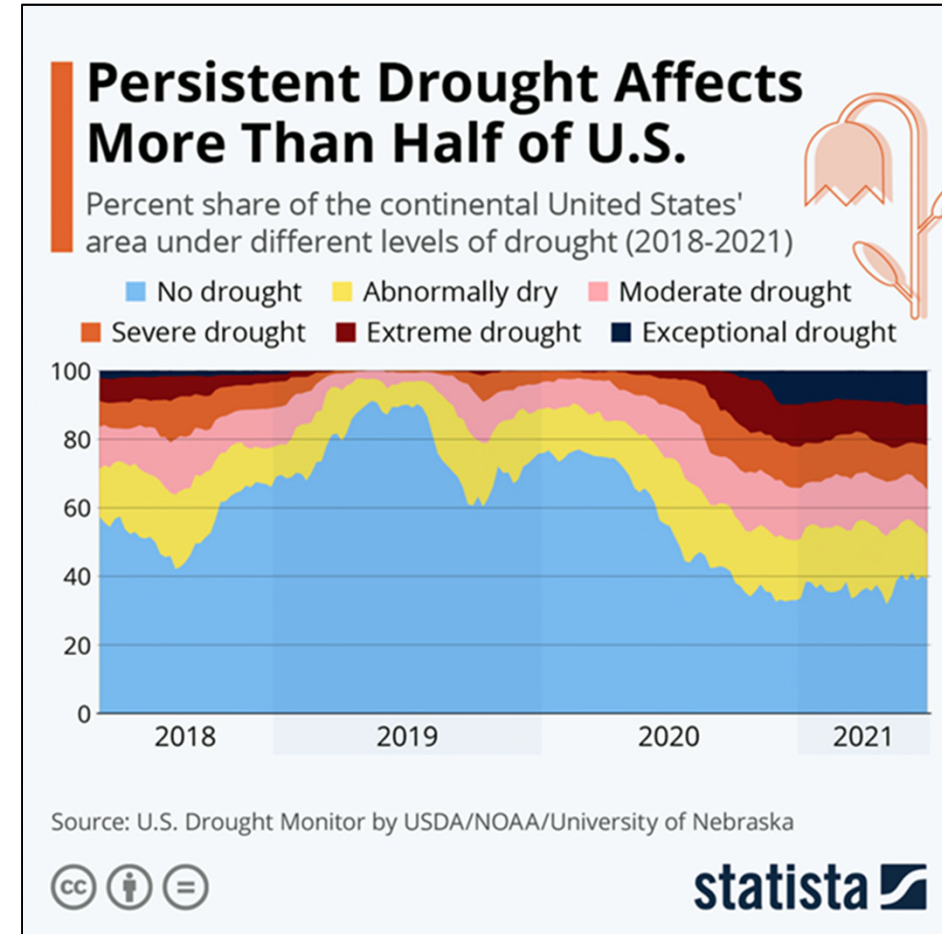
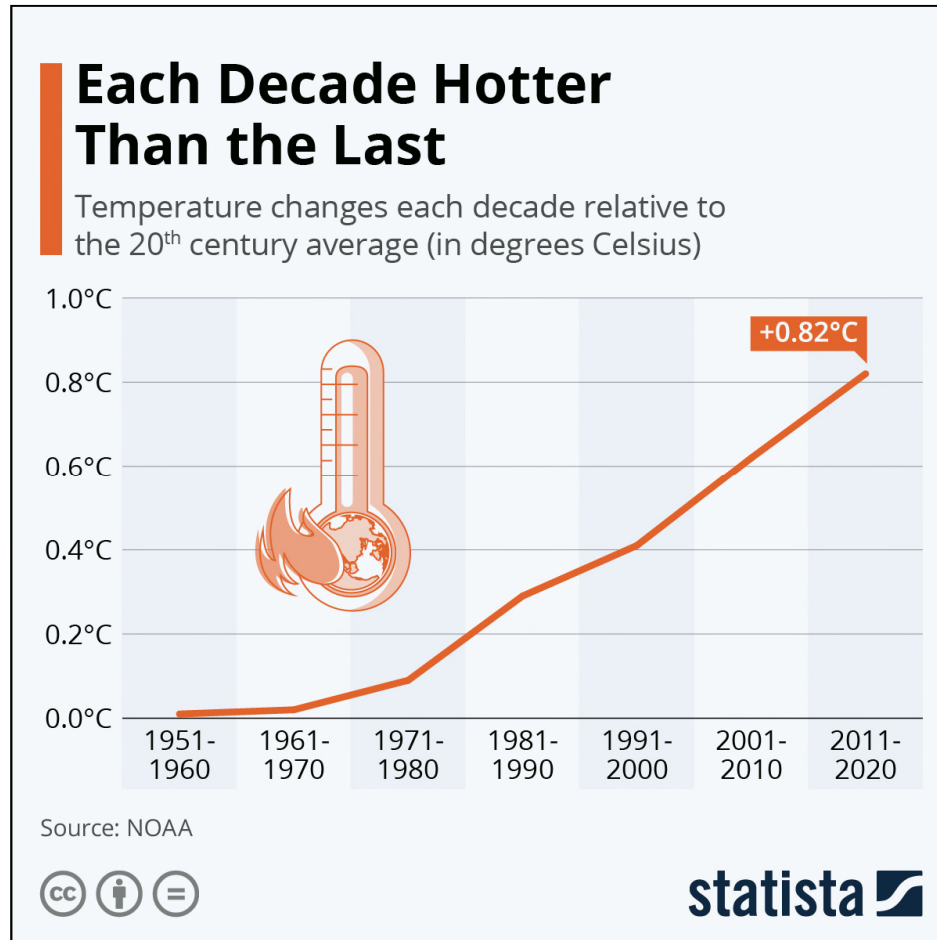


Note: 2020 is projected.

Source: USDA, Economic Research Service.

Selected Drivers of Change:

Rising Temperatures, Drought, Heat Stress



“What” is the Growth Opportunity for Ag Retail?

Precision as a Service (“PaaS”)

- Earn **fees** for providing high quality agronomic advice that leverages data, analytics and advanced computational tools (AI)
- **Benefits:**
 - Incremental source of revenues, enhanced customer experience




Business Model Transformation

“How” Do You Do *Precision as a Service?*

- Change mindset to get paid for advice
- Partner with Suppliers and AgTech providers
- Make Sure Your Service Delivers:
 - Improved Operational Efficiency (less time and effort)
 - Improved Financial Efficiency
 - Enhanced Customer Experiences

“Who” Should You Partner With?

Disclaimer: the following are three marketplace examples. Not an endorsement by the presenter or CoBank.

WHO	WHAT
	Next generation precision ag application of crop protection, seed treatment and traceability
	Advanced crop diagnostics and scouting above and below the canopy
	Supply chain and commodity risk management using advanced data analytics

Case Study



SIMPAS:

- Smart Integrated Multi-product Prescriptive Application System
- Allows growers to apply multiple differentiated products to only the portion of the fields needing specific inputs
- Uses SmartCartridge container technology to utilize on-the-row RFID-tagged application containers

ULTIMUS:

- New electronic verification system providing a proprietary recording and reporting system for field applied input
- Will transform SIMPAS into both a Smart Variable Rate Application System AND a Smart Input Traceability System
- Enhances the Ag Retailer offering, addresses consumer traceability, offers additional stream of revenue

Case Study (continued)



Milestones

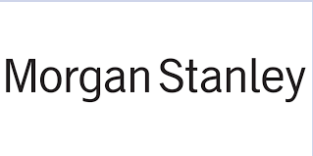

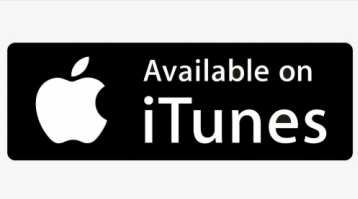

- 2000 - AMVAC acquires SmartBox closed-delivery chemical application system from DuPont
- 2016 - Creation of SIMPAS, builds upon the SmartBox platform with sophisticated yet still simple-to-use metering and software to deploy multiple products.
- 2017- AMVAC and J. R. Simplot collaborate to field test the SIMPAS prescriptive application equipment
- 2020 - AMVAC and Corteva collaborate to test SIMPAS
- 2021 - AMVAC launches SIMPAS and ULTIMAS

Sources: American Vanguard Reports and CropLife.com



Source: AgNewsWire

Transformation Success Stories

Industry	The Old Way	Modern Approach	Leading Providers
Private Client Investments	Commissions on stock and bond trades	Flat Fee on AUM	 
Music	Radio → Records → Cassette & 8 Track Tapes → CDs	Digital Music (individual purchased and subscriptions)	
Movies	“Motion Pictures” → Movie Theaters + Cable Channels	On-Demand Movies	

What Happens When Companies Ignore Technological Disruption? (The Bad News)

The Former Leader



- Opened first store in 1985;
- Raised \$18.5 million raise in 1987, grew store count to 800 by 1998 and 2,800 by 1992
- Sold to Viacom for \$8.4 billion in 1994
- Decided NOT to buy Netflix for **\$50 million** in 2000
- Store count peaked at 9,000 stores, **revenues peak at \$5.9 billion in 2004**
- Became a public company but lost 75% of value by 2005
- **Declared bankruptcy in 2010**

The Disruptor

NETFLIX

- Founded in 1997 by Reed Hastings, former Blockbuster customer that hated paying late fees
- Created the mail order on-demand movie market and became the market leader (early 2000s)
- Then created and became the category killer for digital streaming in 2007
- Generated **\$25 billion in revenues in 2020**
- **Worth \$235 billion 21 years after Blockbuster could have bought it for \$50 million**

What Happens When You Change Your Strategy? (The Good News!)

BBY - Best Buy Company - Monthly Candlestick Chart



Source: BarChart.com

Closing Comments

Ag Retailer Transformation Will Create Value

Greater Revenue Stability

- = More Predictable Earnings
- = Cheaper Cost of Capital
- = Higher Returns on Capital (ROC)

Tangible Benefits of Higher ROC

- = Growth in Economic Value Added (EVA)
- = **HIGHER BUSINESS VALUE**



Source: Vanish Kumar, UnSplash.com

How? Follow a Playbook

- Change is the only constant in life
- When change happens, companies have three options:
 1. Do Nothing
 2. Do Something
 3. Transform the Model — **DO THIS!**
- Success requires a “growth” mindset
- Ask “Why Not” rather than “Why”
- Don’t forget the past, otherwise you might repeat it:
 - **Blockbuster Video, Kodak, J.C. Penney**
 - **Bear Stearns, Lehman Brothers**

Takeaway Points

The Time for Digital Transformation is Now

Failing to Evolve is Dangerous

Digitally-Powered “Precision as a Service” = Future for Ag Retail

The Future Starts Now!!

Thank You!

