

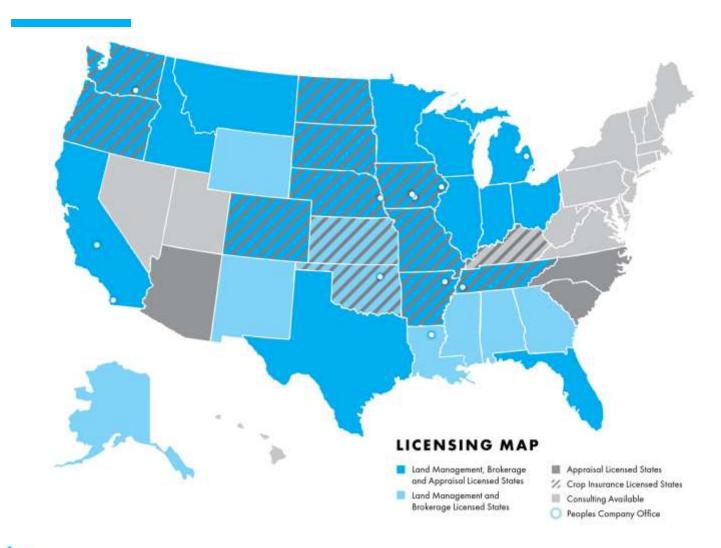
U.S. FARMLAND INVESTING

David Muth Jr., PhD

Capital Markets | Managing Director, Asset Management



PEOPLES COMPANY



Land Brokerage & Auctions



Land Management



Agricultural Appraisals



Capital Markets



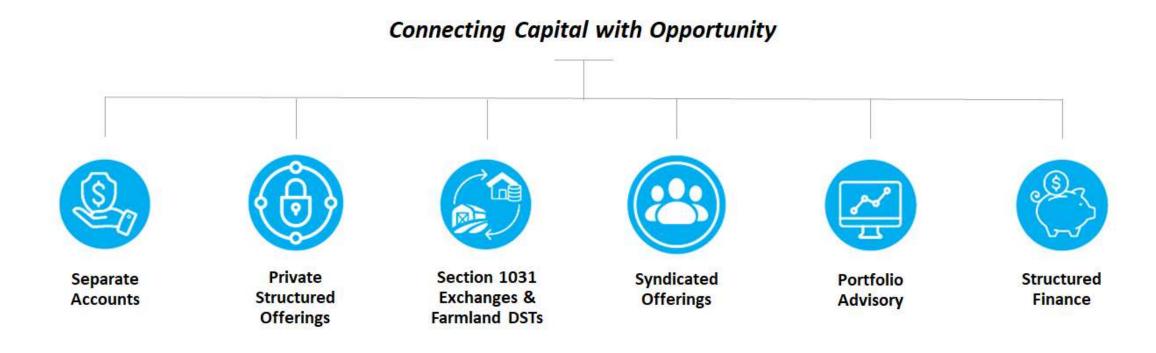
Energy Management



Crop Insurance

PeoplesCompany.com









ASSET CLASS OVERVIEW



U.S. AG SECTOR BALANCE SHEET

Table 1. Selected Balance Sheet Characteristics of US Agricultural Sector

	1970	1980	1990	2000	2010	2013	2015	2017	2019	2021	2023(p)
	(\$ million	ns, except ratio	os - source E	ERS-USDA)							
Farm Assets	278,823	1,000,422	840,609	1,203,215	2,170,832	2,767,754	2,880,015	3,005,945	3,075,148	3,497,614	4,047,027
Real Estate	202,418	782,820	619,149	946,428	1,660,114	2,251,002	2,365,717	2,472,844	2,545,996	2,895,998	3,389,551
Non Real Estate	76,405	217,602	221,459	256,787	510,718	516,752	514,297	533,101	529,153	601,616	657,477
Farm Debt	48,501	162,432	131,116	163,930	278,931	315,332	356,738	390,425	420,495	474,116	535,086
Real Estate	27,238	85,272	67,633	84,724	154,065	185,161	208,769	236,243	267,944	324,257	375,860
Non Real Estate	21,263	77,160	63,483	79,206	124,865	130,172	147,969	154,182	152,551	149,859	159,226
Equity	230,322	837,990	709,493	1,039,285	1,891,902	2,452,422	2,523,277	2,615,520	2,654,653	3,023,498	3,511,942
Selected Indicators											
Debt/Equity	21.1%	19.4%	18.5%	15.8%	14.7%	12.9%	14.1%	14.9%	15.8%	15.7%	15.2%
Debt/Assets	17.4%	16.2%	15.6%	13.6%	12.8%	11.4%	12.4%	13.0%	13.7%	13.6%	13.2%
Real Estate/Equity	87.9%	93.4%	87.3%	91.1%	87.7%	91.8%	93.8%	94.5%	95.9%	95.8%	96.5%
Real Estate/Assets	72.6%	78.2%	73.7%	78.7%	76.5%	81.3%	82.1%	82.3%	82.8%	82.8%	83.8%
Real Estate D/Total D	56.2%	52.5%	51.6%	51.7%	55.2%	58.7%	58.5%	60.5%	63.7%	68.4%	70.2%



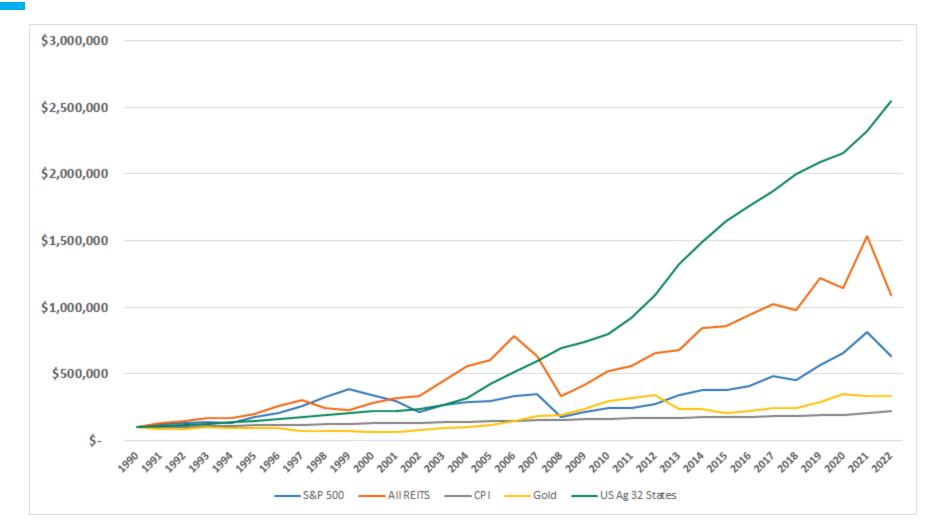
Source: USDA, Economic Research Center

FARMLAND RETURNS IN CONTEXT | 1991-2022

	Annual Ave.	Standard	Coefficient	US Ag 32 States	Minimum	Maximum
Asset/Index	Return	Deviation	of Variation	Correlation	Return	Return
		1991 -	2022			
US Ag 32 States	8.8%	3.9%	0.45	1.00	-1.0%	20.7%
Illinois	9.7%	6.0%	0.62	0.82	0.9%	28.8%
Indiana	9.5%	5.3%	0.56	0.62	-1.0%	24.1%
lowa	11.6%	8.0%	0.69	0.64	-5.0%	27.4%
Washington	12.0%	3.6%	0.30	0.45	5.1%	25.0%
Oregon	11.1%	5.0%	0.45	0.54	-1.3%	24.2%
California	8.6%	5.7%	0.67	0.58	2.5%	35.2%
NCRIEF Ann Crop	10.1%	4.8%	0.47	0.71	4.2%	23.6%
NCREIF Perm Crop	11.4%	9.4%	0.83	0.60	-3.5%	43.1%
NCREIF Total Farmland	10.8%	6.4%	0.59	0.71	2.0%	33.9%
S&P500	7.7%	17.3%	2.26	-0.13	-48.6%	29.3%
NASDAQ	10.4%	26.7%	2.57	-0.16	-52.0%	61.8%
TCM10Y	4.1%	1.9%	0.45	0.27	0.9%	7.9%
Gold	4.8%	13.8%	2.86	0.08	-31.9%	27.7%
AAA	5.5%	1.7%	0.31	0.19	2.5%	8.8%



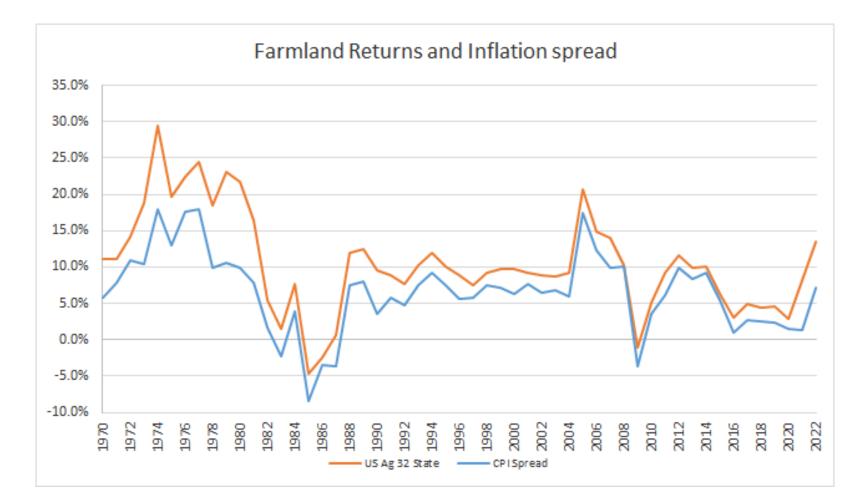
FARMLAND RETURNS | \$100,000 INVESTMENT MADE IN 1990





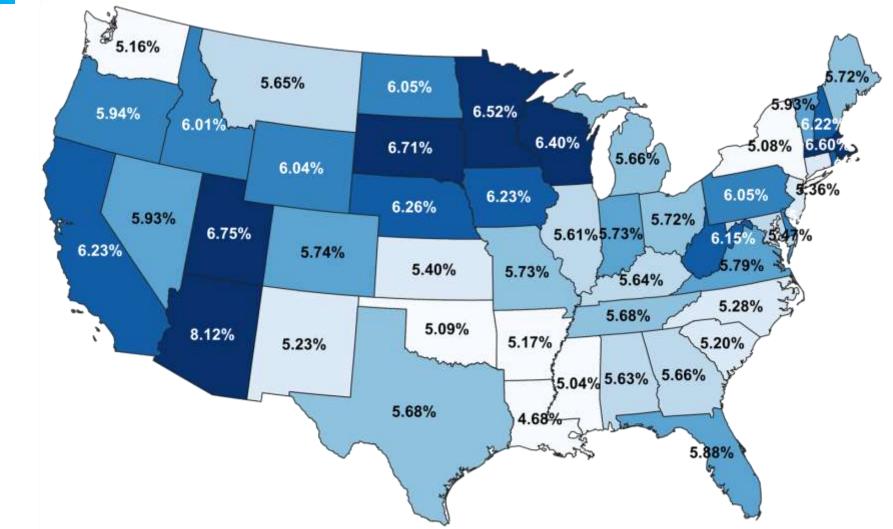
Source: USDA, BLS, and TIAA Center for Farmland Research

FARMLAND CORRELATION WITH INFLATION





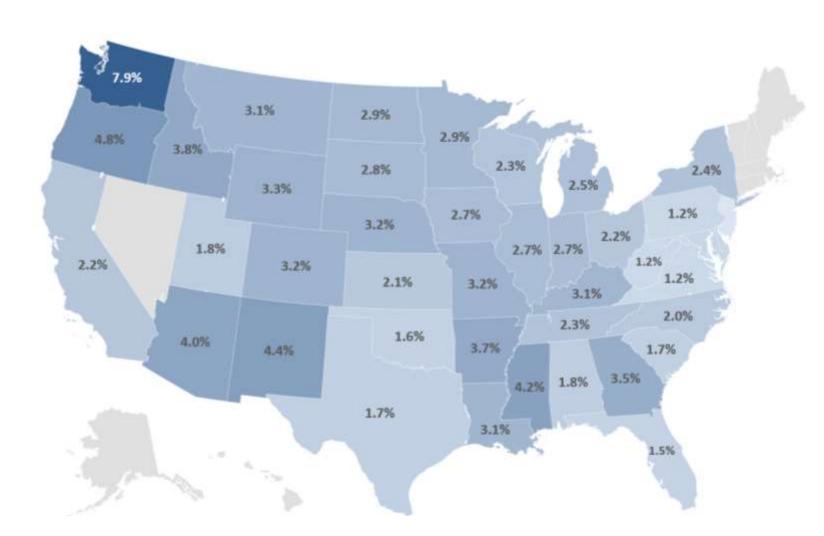
STATE RETURN CHARACTERISTICS | 53-YEAR ANNUAL APPRECIATION





Source: USDA and TIAA Center for Farmland Research

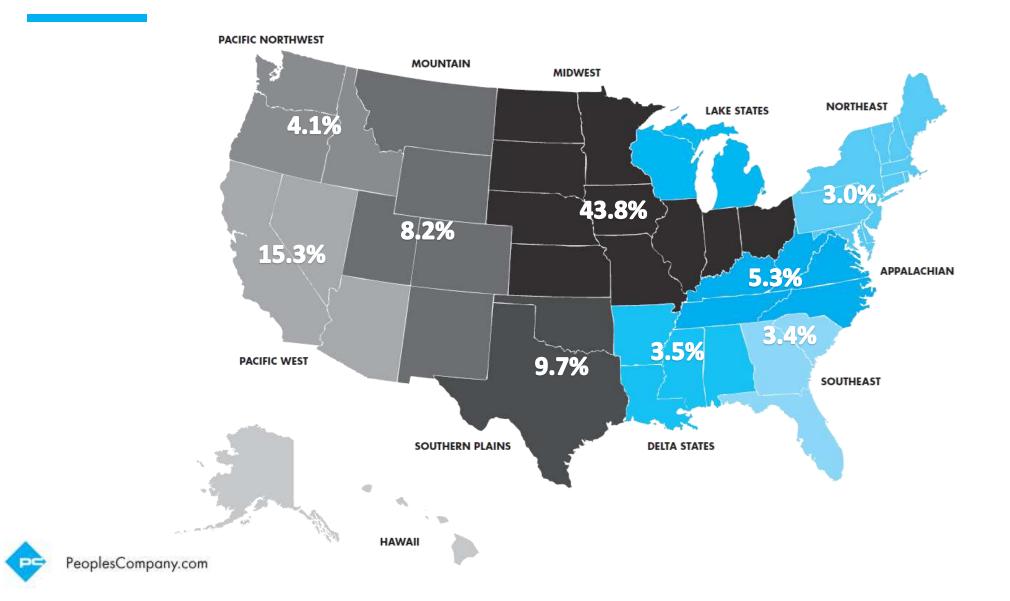
STATE RETURN CHARACTERISTICS | 2023 CAP RATES





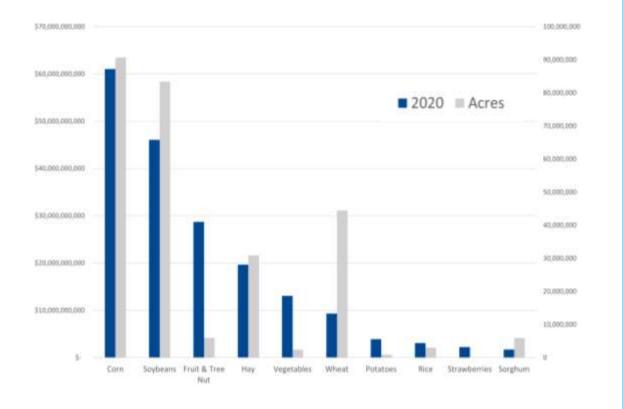
Source: USDA and TIAA Center for Farmland Research

PERCENT OF ASSET VALUE BY REGION

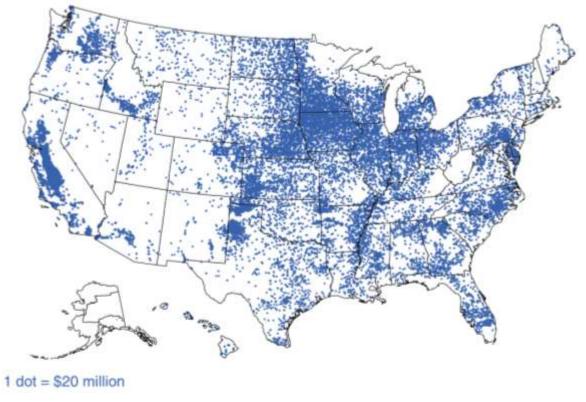


U.S. AGRICULTURAL PRODUCTION SYSTEMS

U.S. TOP 10 PRODUCTION CATEGORIES

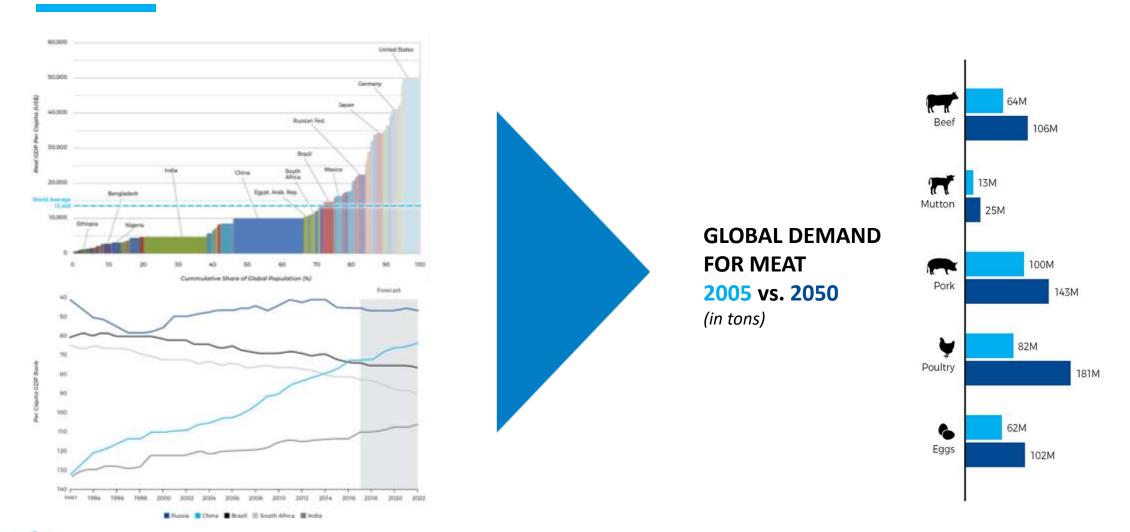


MARKET VALUE OF AG PRODUCTS SOLD IN 2012





BASELINE ECONOMIC FUNDAMENTALS





FEDERAL CROP INSURANCE PROGRAM

Administered by the USDA, the Federal Crop Insurance program makes U.S. farmland truly unique and is a fundamental driver of farmland value stability



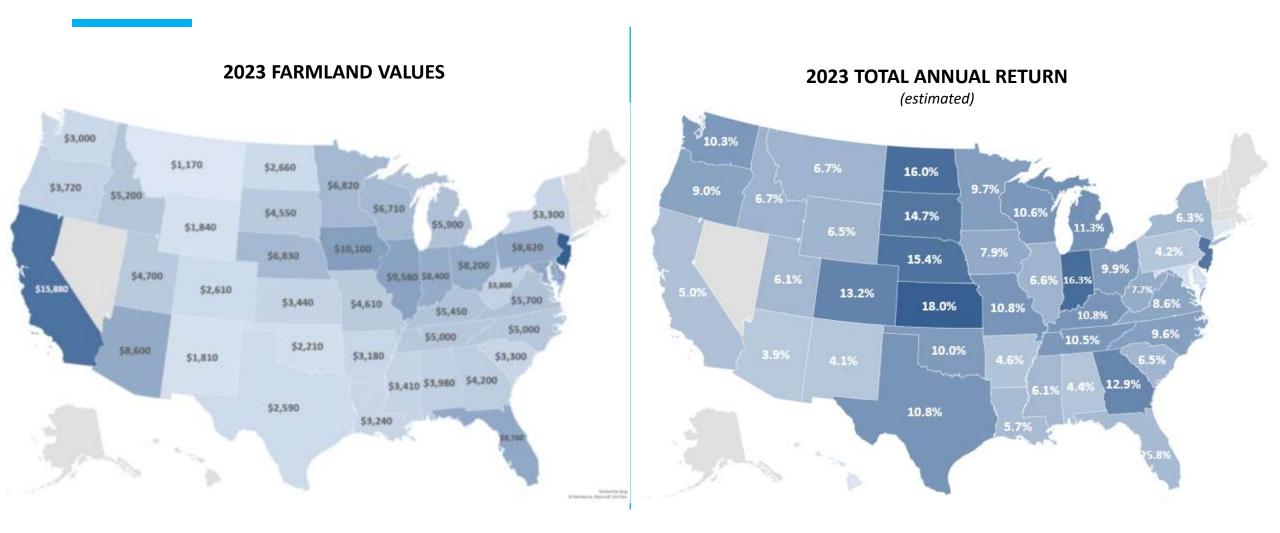




CURRENT MARKET DYNAMICS



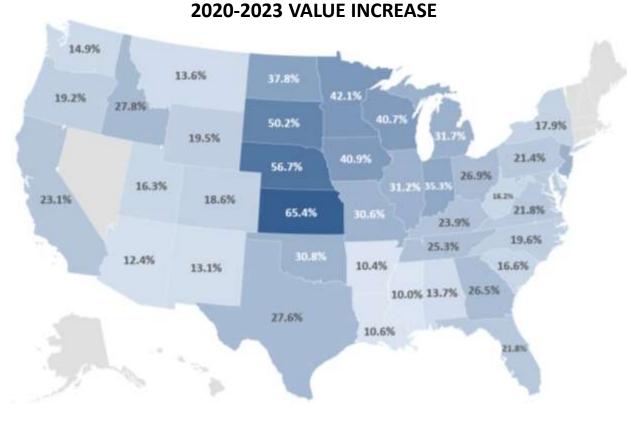
2023 FARMLAND VALUES & RETURNS





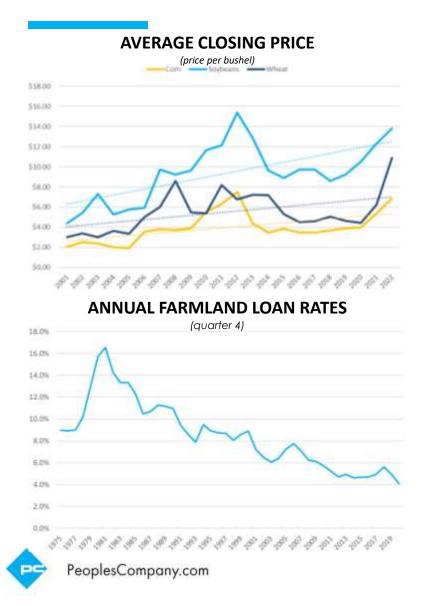
FARMLAND VALUE TRENDS

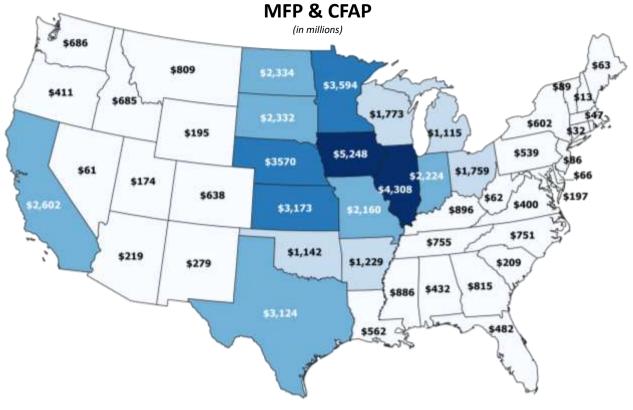






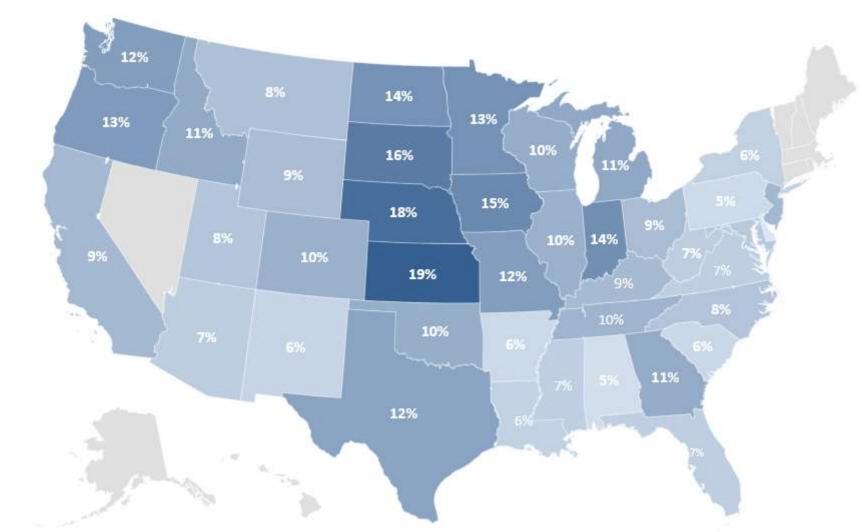
2020-2023 PRICE CHANGE DRIVERS





- MFP and CFAP Programs: \$53.9B distributed
- Commodity price run
- Interest rates
- Broad real asset cap rate compression

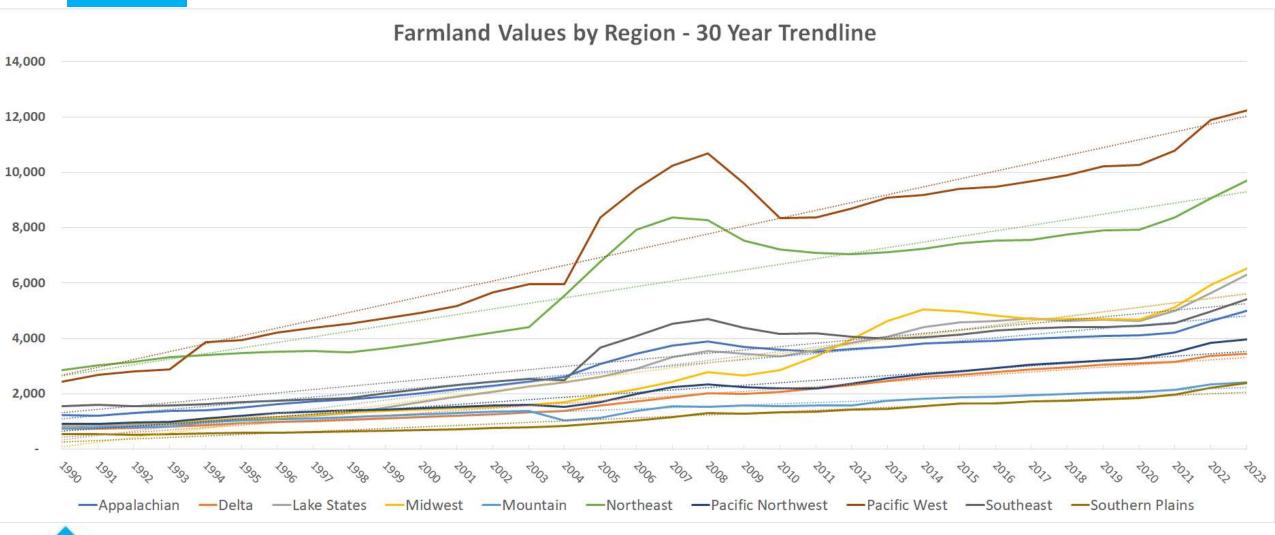
FARMLAND RETURNS – THREE YEAR AVERAGE: 2021-2023





Source: USDA, Economic Research Service

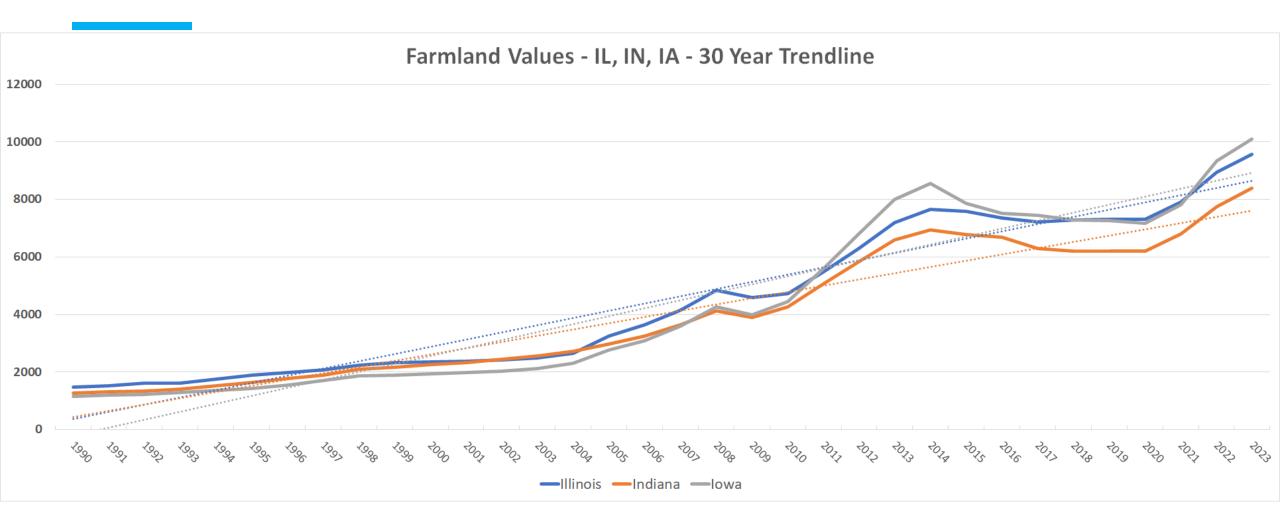
REGIONAL PERFORMANCE



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Source: USDA, Economic Research Service

CORE MIDWEST PERFORMANCE





Source: USDA, Economic Research Service

ASSET PERFORMANCE RELATIVE TO ACQUISITION TIMING

		1	en (en	a or year	1																								
		1991 1992	1993 19	94 1995	1996 1	997 199	8 1999	2000	2001	2002	2003	2004	2005	2006 ;	2007 20	08 200	9 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 2	2020 ;	2021 2	022 2023p
	1991	8.83% 8.25%	8.93% 9.	55% 9.73%	9.57% 8	9.27% 9.2	5% 9.31%	3.34%	9.33%	9.29%	3.24%	3.24%	9.97%	10.27% 1	0.48% 10.4	6% 9.83	× 9.59	2 9.572	9.66%	9.67%	9.68%	9.54%	3.23%	9.12%	8.94%	8.79%	8.59%	8.57% 8	.72% 8.75%
	1992	7.68%	8.98% 9.3	9.96%	9.72% 3	.34% 9.3	12 9.372	9.40%	9.38%	9.34%	9.28%	9.27%	10.05%	10.36% 1	10.58% 10.5	6% 9.88	× 9.63	z 9.60z	9.70%	9.70%	9.72%	9.57%	9.30%	9,13%	8.95%	8.79%	8.58%	8.57% 8	.72% 8.75%
	1993		10.29% 11.	07% 10.72%	10.24% 3	9.67% 9.5	8% 9.61%	3.62%	9.57%	9.50%	3.42%	9.40%	10.23%	10.56% 1	10.78% 10.1	4% 10.02	3.74	2 9.702	9.80%	9.80%	9.81%	9.65%	9.37%	9,19%	3.00%	8.83%	8.61% 8	3.60% 8	.76% 8.78%
	1994		11.2	872 10.942	10.22% 3	9.52% 9.4	4% 9.50%	9.52%	9.48%	9.42%	9.34%	9.32%	10.23%	10.58% 1	0.82% 10.1	7% 10.00	s 9.70	2 9.672	9.77%	9.78%	9.79%	9.62%	9.33%	9.14%	8.95%	8.77%	8.55%	8.54% 8	.70% 8.73%
	1995			10.03%	9.41%	8.75% 8.8	5% 9.03%	3,14%	9,15%	9,11%	9.06%	9.07%	10.08%	10.47% 1	10.74% 10.1	0% 9.81	3 9.57	2 9.542	9.66%	9.67%	9.69%	9.52%	9.22%	9.03%	8.83%	8.65%	8.42% (3.42% 8	.59% 8.63%
	1996				8.80%	8.12% 8.4	6% 8.78%	8.96%	9.00%	8.98%	8.94%	8.96%	10.09%	10.51% 1	0.80% 10.	5% 9.86	2 9.54	2 9.512	9.63%	9.65%	9.67%	9.49%	9,18%	8.98%	8.77%	8.59%	8.36%	8.35% 8	.54% 8.58%
	1997				7	.44% 8.2	9% 8.78%	9.00%	9.04%	3.01%	8.96%	8.98%	10.23%	10.68% 1	0.98% 10.	91% 9.99	* 9.59	2 9.56%	9.69%	9.70%	9.72%	9.53%	9.20%	8.99%	8.77%	8.59%	8.34% 8	3.34% 8	3.53% 8.57%
	1998					9.1	3% 9.45%	9.53%	9.44%	9.33%	9.21%	9.21%	10.59%	11.05%	11.34% 11.2	3% 10.16	× 9.76	2 9.722	9.84%	9.84%	9.85%	9.65%	9.29%	9.07%	8.84%	8.64%	8.38%	3.37%	3.57% 8.61%
of vear)	1999						9.77%	9.72%	3.54%	9.38%	9.23%	9.22%	10.79%	11.29%	11.59% 11.4	5% 10.25	3.81	3.76%	9.89%	9.89%	9.90%	9.68%	9.30%	9.06%	8.82%	8.61%	8.35% 8	3.34%	3.55% 8.59%
ŝ	2000							9.67%	9.43%	9.25%	9.09%	9,112	10.97%	11.51%	11.82% 11.6	3% 10.30	\$ 9.82	z 9.76%	9,90%	9.90%	9.90%	9.67%	9.27%	9.02%	8.77%	8.56%	8.28% (8.28% 8	3.50% 8.54%
Buy (beginning) Buy	2001								9,19%	9.04%	8.90%	8.97%	11.22%	11.82%	12.12% 11.8	8% 10.31	* 9.83	z 9.77z	9,92%	9,91%	9.92%	9.67%	9.25%	8.99%	8.72%	8.50%	8.21%	8.21% 8	.44% 8.50%
≓. %	2002									8.89%	8,76%	8.89%	11.74%	12.35% 1	2.62% 12.2	10.52	× 9.90	z 9.82z	9.98%	9.97%	9.98%	9.71%	9.25%	8.97%	8.70%	8.46%	8,16%	8.16%	3.41% 8.46%
<u>ع</u>	2003										8.62%	8.89%	12.71%	13.24% 1	3.38% 12.8	4% 10.75	* 10.03	2 9.932	10.03%	10.07%	10.07%	9.77%	9.28%	8.98%	8.68%	8.43%	8.12%	8.12% 8	.38% 8.44%
та — та	2004											3,16%	14.80%	14.82%	14.61% 13.	11.1	10.23	\$ 10.09%	10.26%	10.22% 1	10.20%	9.86%	9.33%	9.00%	8.69%	8.42%	8.09% 8	3.09% 8	3.37% 8.43%
	2005						1	~~~					20.74%	17,75% 1	6.48% 14.8	7% 11.50	8 10.41	\$ 10.23%	10.39%	10.34% 1	10.30%	9.93%	9.34%	8.99%	8.65%	8.37%	8.02% 8	3.03% 8	.33% 8.40%
	2006					_	~							14.84%	14.41% 12.8	8% 9.3	8.46	2 8.572	8.99%	9,10%	9.20%	8.90%	8.36%	8.07%	7.78%	7.54%	7.23%	7.28% 1	.64% 7.75%
	2007	30% -												1	13.97% 12.0	6% 7.52	\$ 6.91	2 7.352	8.05%	8.31%	8.52%	8.26%	7.73%	7.47%	7.21%	7.00%	6.70% 6	5.80% 7	.20% 7.35%
	2008				_		\frown	_							10.1	8% 4.44	2 4.66	\$ 5.76%	6.30%	7.39%	7.76%	7.57%	7.06%	6.84%	6.61%	6.44%	6.16% 6	5.30% (5.77% 6.94%
	2009	20%														-1.0	2.00	4.32%	6.09%	6.84%	7.36%	7.20%	6.68%	6.48%	6.26%	6.10%	5.83%	6.01% 6	532 6.732
	2010	Annual Realized Returns				19											5.11	2 7.10%	8.57%	8.90%	3.12%	8.63%	7.83%	7.45%	7.10%	6.84% (6.48% 6	5.62%	7.13% 7.31%
	2011	ized			1			900 -										9,12%	10.34%	10.19%	10.14%	9.35%	8.29%	7.79%	7.35%	7.04% (6.62%	5.76% 7	.30% 7.48%
	2012	- %0 gl	h hh	\geq				100		1									11.58%	10.73% 1	10.49%	3.41%	8.12%	7.57%	7.10%	6.78%	6.34%	5.52%	7.14% 7.34%
	2013	E10%	976	m	<u> </u>		-	~		mm ann	E 2023									9.88%	9.95%	8.69%	7.27%	6.78%	6.37%	6.112	5.70%	5.97% 6	.70% 6.97%
	2014	Ann	5010	892	h.			TITOT	20014	2015	12																		.36% 6.68%
	2015 2016	-20%		2009	لر ہ 2		num N	2003	2005		\neg											6.24%							5.91% 6.32%
	-30%	<	Sold	2018	661 1.021	1997	ω																					.86% 6.33%	
	2017				2	99.99		Bought		-	TTA																		.33% 6.79%
	2018								TTTT	-11																			.62% 7.12%
	2019							111111																					.20% 7.68%
	2020						TTTT .																						3.10% 8.48%
	2021			- -3	0%20%	-20%10	6 =-10%-	0% = 0%	6-10%																				.80% 10.41%
PeoplesCompany.com	2022																											13	.49% 11.55% 9.63%
	2023																												3.63%

LEVERAGED BUYERS

Land Price	\$10,000	\$/acre
Cap Rate	3.00%	
Interest Rate	7.50%	
LTV	50%	
Term	25	years
Annual Payment	(\$449)	\$/acre
Revenue	\$300	\$/acre
Net Income	(\$149)	\$/acre





CASH BUYERS





IMPACT OF A SHRINKING BUYER POOL

- Driven by cash buyers owning farmland as a business
- Acquisition within +/- 10% variance of trendline
- Unique timing for acquisitions:
 - Sale leasebacks
 - Farmer partnerships
 - Forced and elected transitions





FARMLAND INCOME DRIVERS

Income	Key Factors	Impacts
Crop Revenue	 Crop price Long term yields Crop insurance protects short term yield issues 	2022 Crop cash receipts = \$278B
Costs of Production	Net income from operationsCost of working capital	2022 Est revenue returned to land = \$117B
	Farmland Externalities	
Recreation	Hunting/FishingOutdoor activitiesAgritourism	\$1B in 2017, tripling over 15 years
Energy Production	WindSolarElectric storage	\$10B-\$20B for current production goals
Carbon Storage	Offset and inset markets	\$12B-\$25B for current net- zero goals
Ecosystem Services	Off farm impactsWater quantity/qualityBiodiversity	Global total value est at \$33T annually



DOWNSIDE RISK ANALYSIS

Comparing Downside Risks									
	Farmland	Corporate Bonds	S&P 500						
Negative Years	3	9	11						
Worst 1-Year Total Return	-5.0%	- 14.5%	-36.6%						
Standard Deviation	6.4%	8.4%	17.2%						
Downside Deviation	1.7%	3.6%	9.5%						



EQUITIES ANNUAL TURNOVER

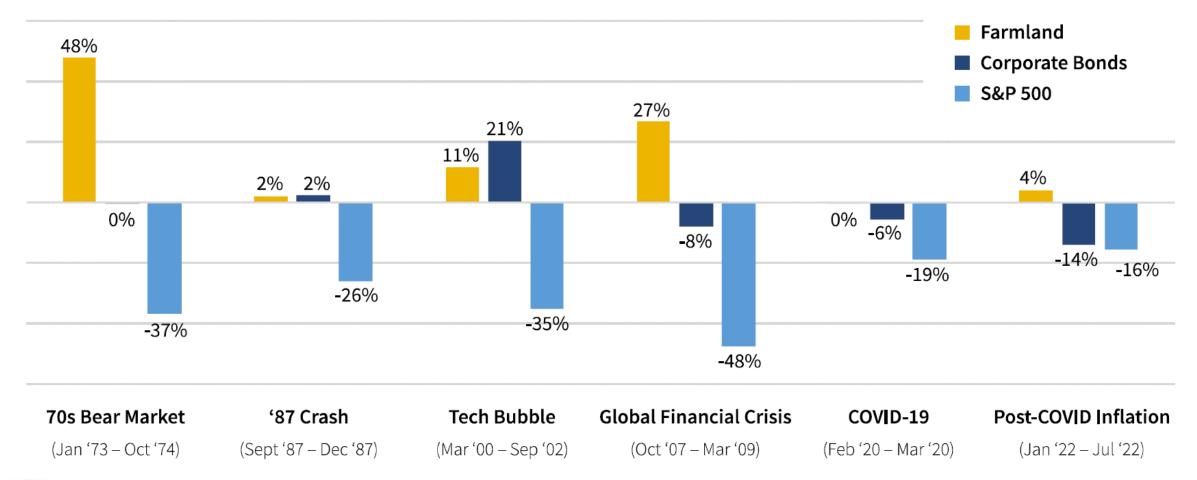
Ownership and Turnover	Farmland	Public Equities
Percent owned by owner-operators/"insiders"	60%	<2%
Annual turnover	2%	100%



Source: US Agriculture: "Farmland: A Powerful Diversification Tool for Investment Portfolios"

Returns during equity drawdown periods

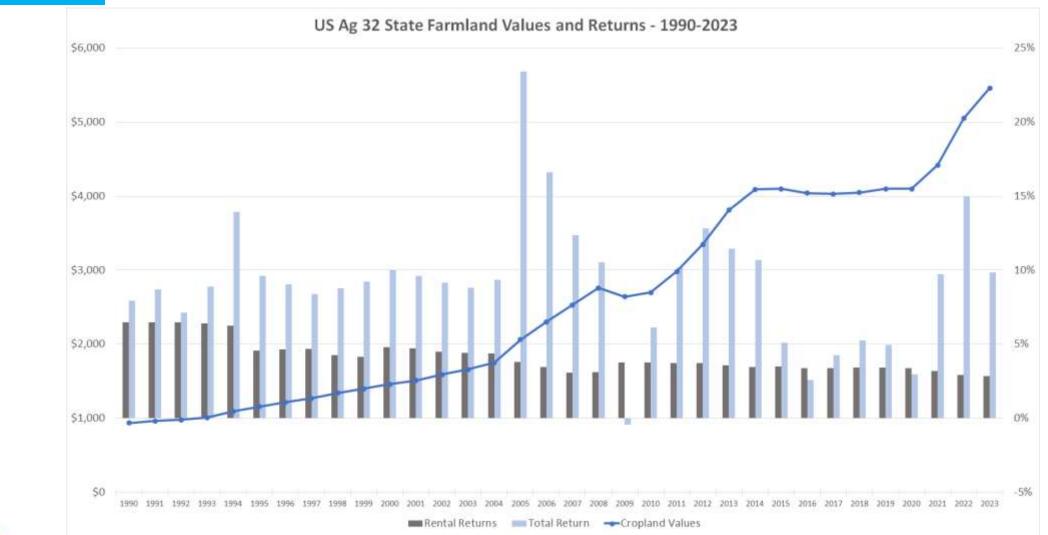
Asset Class Returns During Equity Drawdown Periods





Source: US Agriculture: "Farmland: A Powerful Diversification Tool for Investment Portfolios"

UNDERSTANDING ACQUISITION TIMING IMPACTS





ASSET CLASS DRIVERS AND OPPORTUNITIES

Financialization of the Asset Class

- Increasing interest from investment capital
- · Motivated by broad economic drivers and historical asset class performance
- · Will improve efficiency and scale of capitalization
- · Aligns with demographic realities of farmland ownership

Consumer Trends

- Sustainable production
- Traceability in supply chains
- · Health, wellness, and experience drivers in food consumption

Technology

- Production technology continues to deliver more output with less input
- · Ubiquitous access to historical production information
- Improving transactional efficiency

Expanding Revenue



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FINANCIALIZATION OF THE ASSET CLASS

Massive capital turnover as older farmers and landowners exit farm investments leading to greater opportunity for investors.

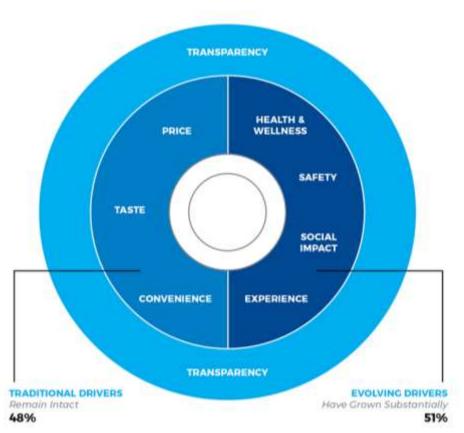


82% of principal landlords were 55 years of age or older in 2014

13.9% average asset class leverage



CONSUMER TRENDS



Source: Deloitte Development LLC

Among evolving value drivers, three distinct buyer groups emerge:

 "Balanced health" buyers
 who have a preference for health, wellness, and nutritional content

"Free from" buyers who have a preference for free of harmful elements

*Naturally oriented" buyers who have a preference for organic, local, non-GMA, all natural, and limited processing/preservatives/artif icial ingredients

83%

PEOPLES COMPANY INITIATIVES

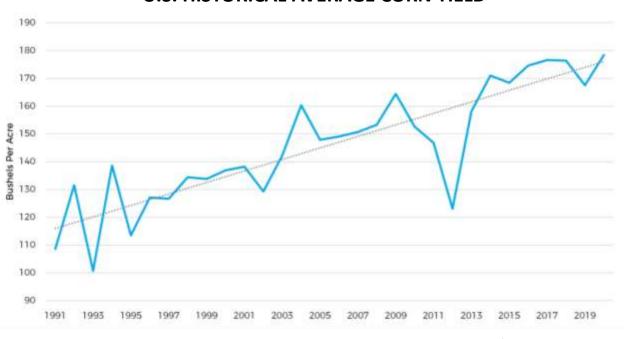






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U.S. HISTORICAL AVERAGE CORN YIELD

Source: USDA, Research Economic Service

AGRI-FINTECH DATA







EXPANDING REVENUE | INFLATION REDUCTION ACT

"carbon pollution-free power sector by 2035 and net zero emissions economy by no later than 2050"

Inflation Reduction Act Impacts



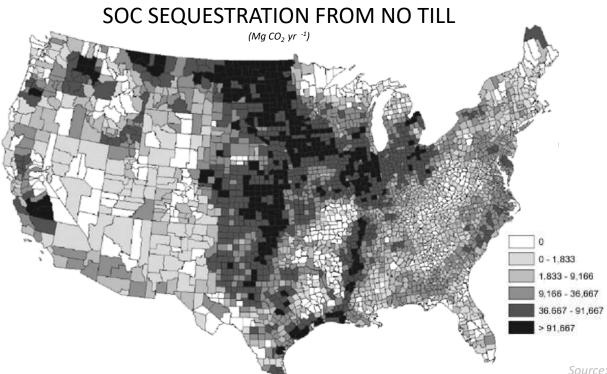
Economic Sector Spending								
Energy	\$250.6 Billion							
Manufacturing	\$47.7 Billion							
Environment	\$46.4 Billion							
Transportation & Electric Vehicles	\$23.4 Billion							
Agriculture	\$20.9 Billion							
Water	\$4.7 Billion							
TOTAL	\$393.7 Billion							

Inflation Poduction Act



EXPANDING REVENUE | VALUING CARBON SEQUESTRATION

U.S. Farmland Cap Rate	3.5%	3.5%	3.5%					
Total Annual Value	\$6,000,000,000	\$12,000,000,000	\$18,000,000,000					
Annual Carbon Sequestered (MT)	200,000,000	200,000,000	200,000,000					
	\$30	\$60	\$90					
	Value Per MT Carbon							





Source: Carbon Balance & Management Journal

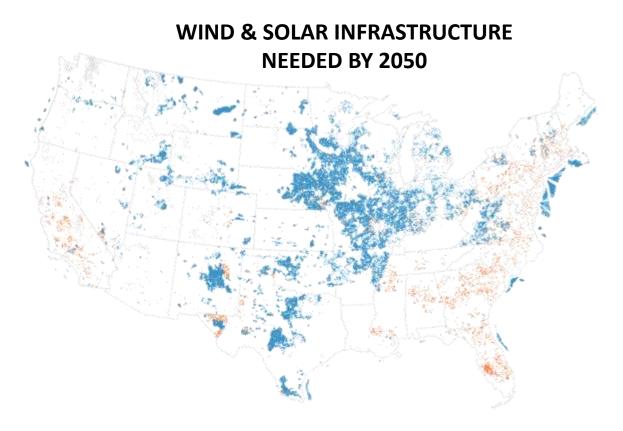
EXPANDING REVENUE | RENEWABLE ENERGY

Wind Energy Demand Analysis

Total U.S. Farmland Value Impact	\$148,848,484,848
Cap rate assumption for turbine revenue	6.0%
Total farmland turbine revenue generated	\$8,930,909,091
Average annual lease rate per farmland turbine	\$10,000
Total turbines installed on farmland	893,091
Percentage of turbines installed on farmland	80%
Total turbines installed	1,116,364
MW produced per wind turbine	2.75
Installed wind generation capacity (TW)	3.07

Biofuels Marketplace

Current U.S. fuel ethanol plant capacity (MMgal/year)	17,380
U.S. transportation sector 2021 diesel consumption (MMgal)	46,820
U.S. total airlines 2019 aviation fuel consumption (MMgal)	26,674





Source: Princeton Net Zero America Study



THANK YOU!

