INVESTING IN U.S. FARMLAND

Historical Analysis of Farmland as an Asset Class

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FOREWORD

In my career as an equity research analyst, I spent most of my waking hours combing through news and financial data looking for opportunities. Having read about historical market fluctuations, I am amazed at the principal risk to which most investors are currently subjected. I also can't help but wonder when the next tipping point will occur.

While professional fund managers can hedge their downside risk through complex financial products, average American investors have limited ways to protect their portfolios. Cash is always an option, but its value is drained by inflation. Gold is a popular choice, but drawbacks include volatility, limited use, and a lack of dividends.

Growing up in a farming family, I always understood the value of land. Only in recent years, however, did I truly begin to appreciate farmland as an investment vehicle, inflationary hedge, and diversification tool. When purchased wisely and managed well, farmland can provide astonishingly good returns.

Despite the attractiveness of farmland, it has not been institutionalized to the same degree as other asset classes or even other types of real estate. This makes farmland an inefficient market and presents additional challenges to potential investors. For example, many of the best properties are never listed or sold at auction, which makes them difficult to find without an extensive personal network and plenty of capital.

On top of that, the land must still be managed: from negotiating leases and nurturing tenant relationships to monitoring the soil and working with government agencies such as the USDA, FSA, and EPA. This becomes more difficult if you don't know about farming and live thousands of miles away from your investment.

Ultimately, it is far less easy to find, buy, and manage farmland than it is to buy a stock, bond, or mutual fund.

These barriers to entry left me with a nagging question: what needs to happen to open this asset class to everyday investors? That question led to an idea that would become AcreTrader.

In the following pages I've shared some of my general analyses about farmland as an investment. I hope you find them useful as you explore this historically overlooked opportunity!

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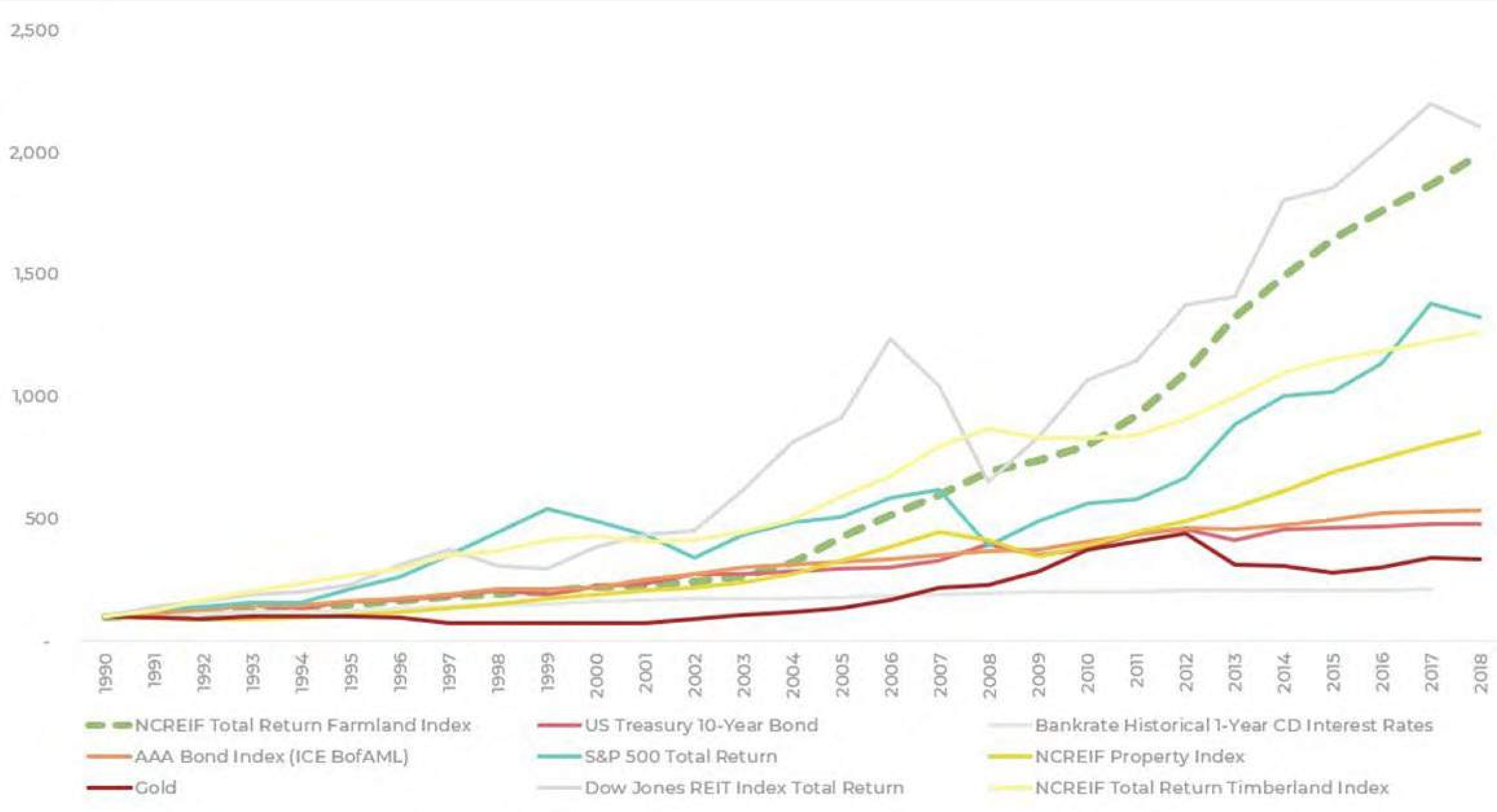
Cumulative Returns

While farmland is by no means a bullet-proof asset, it has clearly shown remarkable returns to its owners over time and has outperformed most major asset classes. Look at this chart comparing $100 invested in 1990:

Cumulative Returns on Major Asset Classes, Indexed to 1990 [1]

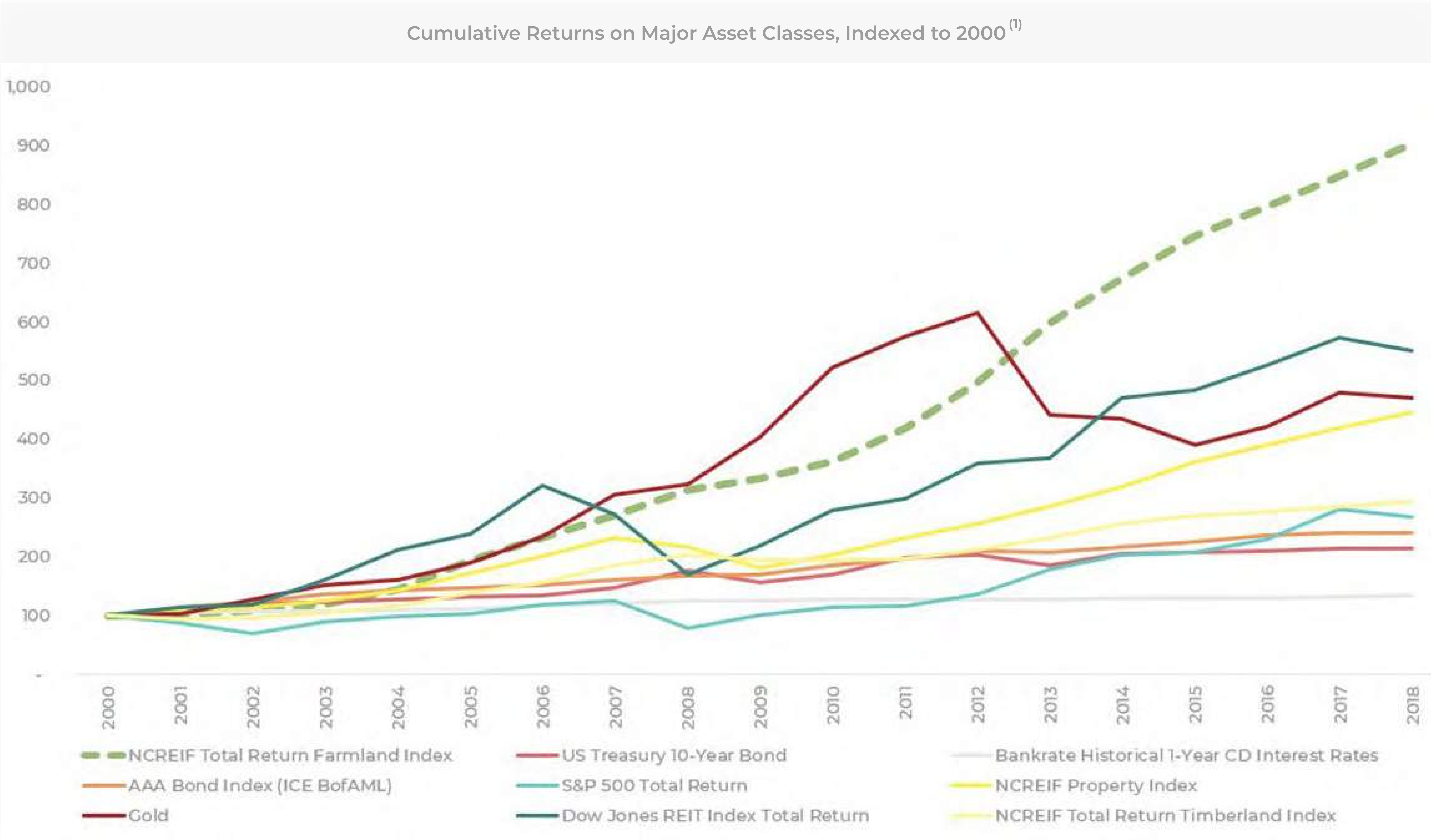


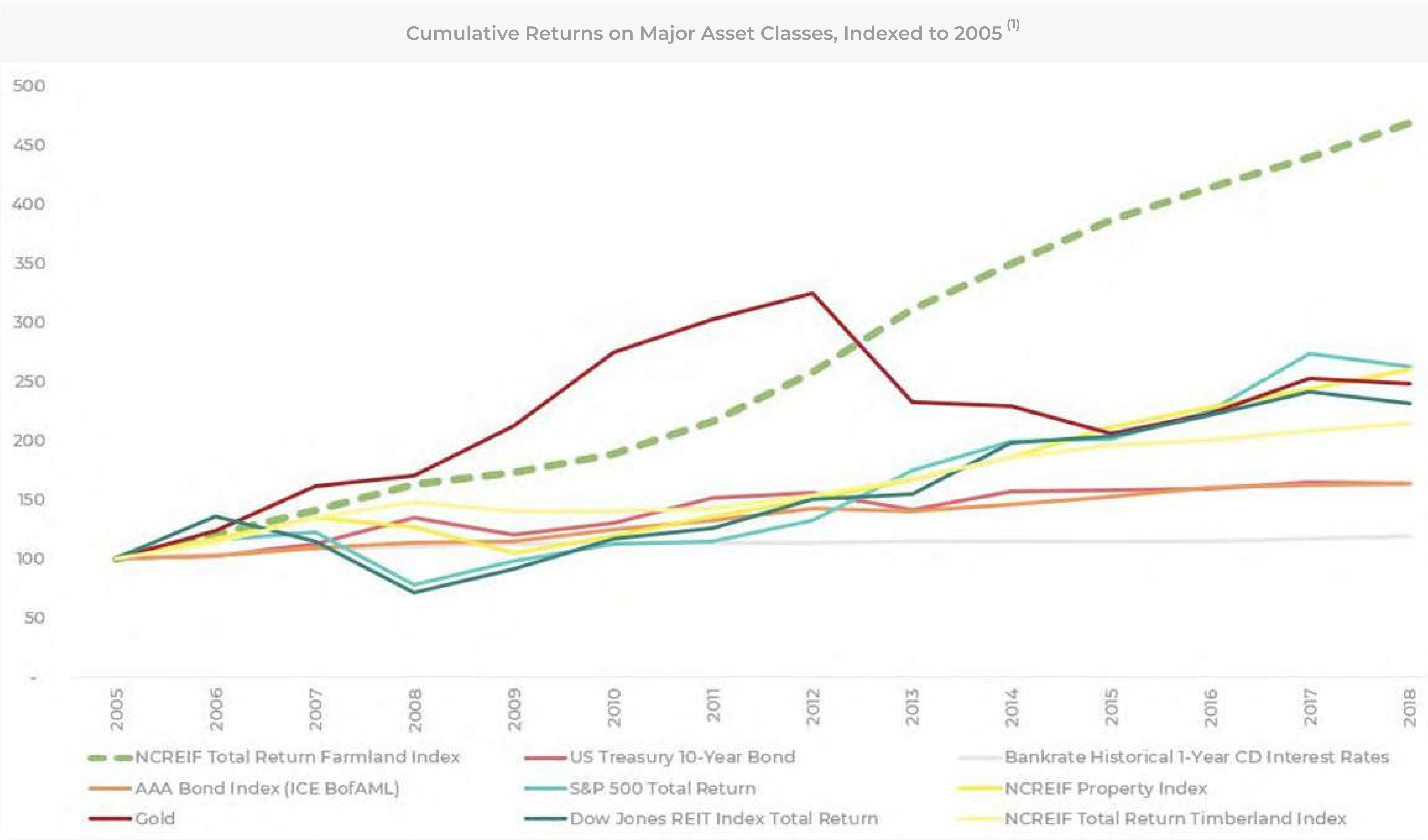
You may notice that, while farmland has historically posted some very impressive returns, there is one index that has outperformed farmland: The Dow Jones REIT Index. In fact, if we zoomed in during small 1 to 2 year periods of time, we may find other assets outperform farmland during some of these shorter timespans.

However, this also highlights one of our favorite aspects of farmland: it has historically been a **very conservative investment with impressively low volatility**.

Note that despite the Dow Jones REIT Index performing strongly over time, there are periods of extreme volatility. For example, **if an investor had been unfortunate enough to buy the Dow Jones REIT Index in 2006 and sell two years later, the losses would have been upwards of 50%**.

You may then ask: why does the timescale in the above chart start at 1990 and what does it look like from other periods? The following page provides a few quick answers.





Note that some of the best-looking returns from 1990 (Dow Jones REIT Index and the S&P 500) look far less impressive, yet **farmland retains a position at the top**.

Disaggregating Historical Returns

It is important to note that farmland has historically produced investor returns from two sources:

1. increases in land values
2. annual dividends from farmers that pay rent

While each of these can fluctuate from year to year, the below chart shows that, when combined, the total returns of farmland have been positive every year since 1991.

Of course, it is unreasonable to think that a high-returning asset never declines in value. If we look at a different dataset from the USDA on the following chart, we can see land values (*excluding* income from crop yields) going back to 1968.

This dataset includes the oil crisis and interest rate crisis that created a steep decline in farmland values during the 1980s.

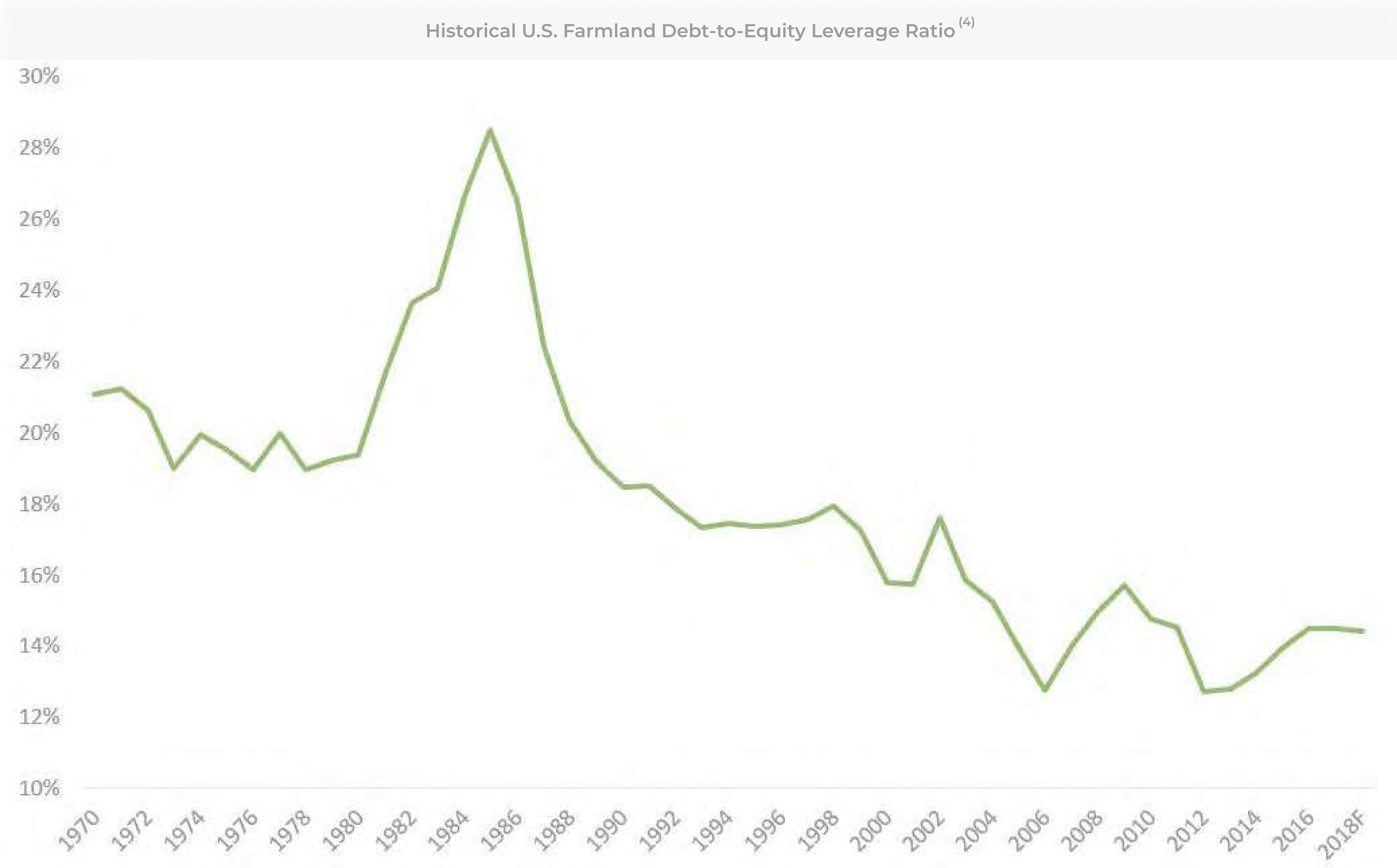
Two interesting takeaways from the chart above are: 1) **farmland values have only declined in 5 years of the last 50 years**, and 2) from 1985-1987 farmland values saw a significant decline during the interest rate and oil crises of the time. Keep in mind, however, this is just the value of the land itself. During those same years of 1985-1987, the cash rent yields were still roughly 5% to 8%[3].

Said differently, **during the full-blown farm crisis of 1985-1987, the average annual negative return to the farm owner was only around -3%**. Had the owner held onto that land, the land itself would be worth over 400% more today, and that's before accounting for the accumulation of annual cash dividends on top.

Minimal Leverage and Debt

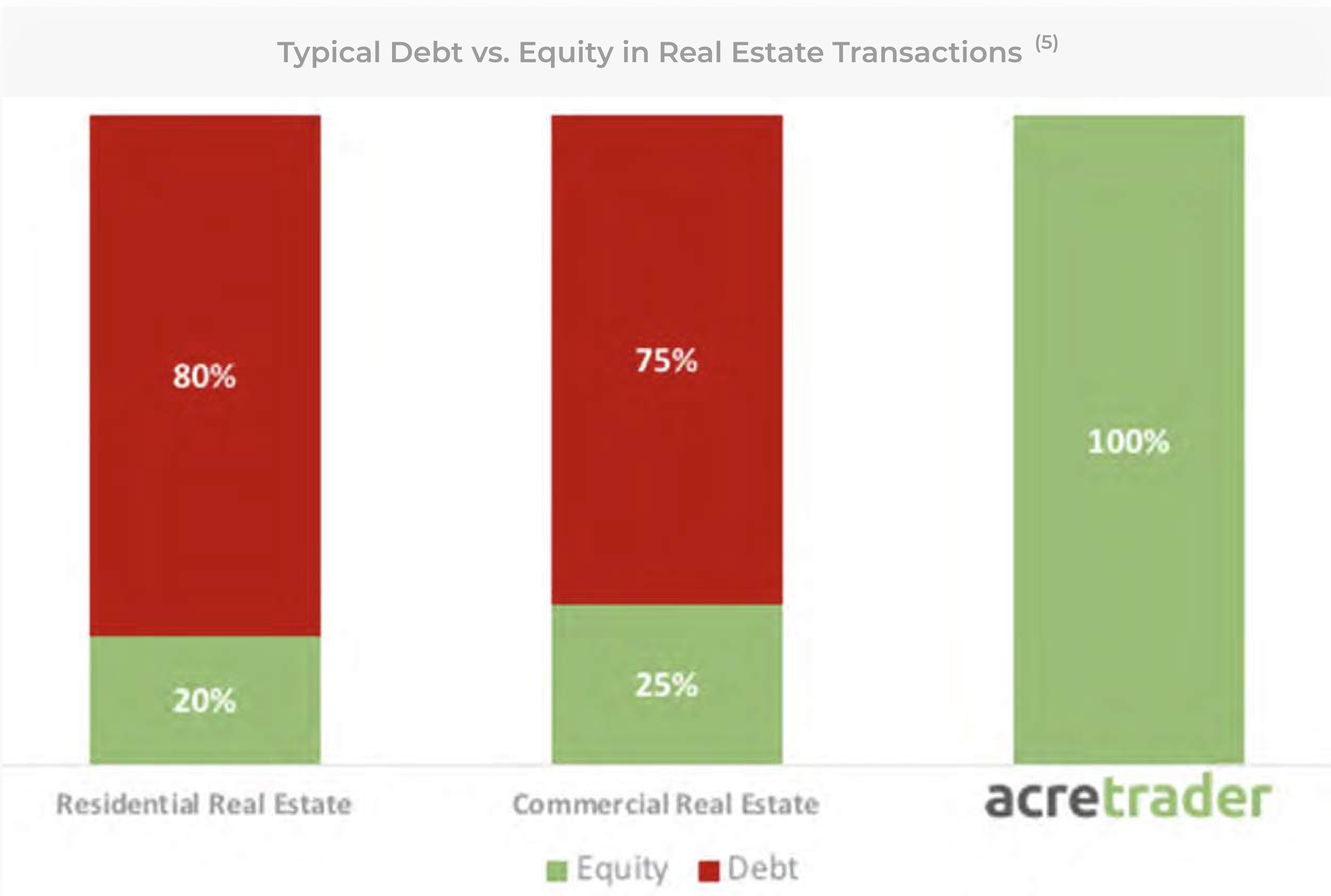
It is also worth noting that the farm crisis of 1985-1987 was amplified by large amounts of leverage in the system, as farm price appreciation of the early 1980s drove heavy investment from speculators, who aggresively borrowed against their farms to do so.

When prices began to go down, this set into motion a spiral of defaults, forced resales, and lower comparable prices. Debt-to-equity leverage ratios peaked in 1985 at nearly 29%. Compare that with today, where **the USDA estimates leverage at a near-record low of 14%**.



This small amount of leverage, or total debt, involved in farmland makes the return profile even more impressive when compared to other assets like commercial real estate.

While debt can often amplify returns for the investor, it also greatly increases the risk. For example, if you buy a retail center with a 20% down payment, the other 80% is covered by debt from the bank. If the value of the property goes down by 20%, the value of your investment becomes zero. Not only that, you would still owe the bank the other 80% plus the monthly carrying costs.

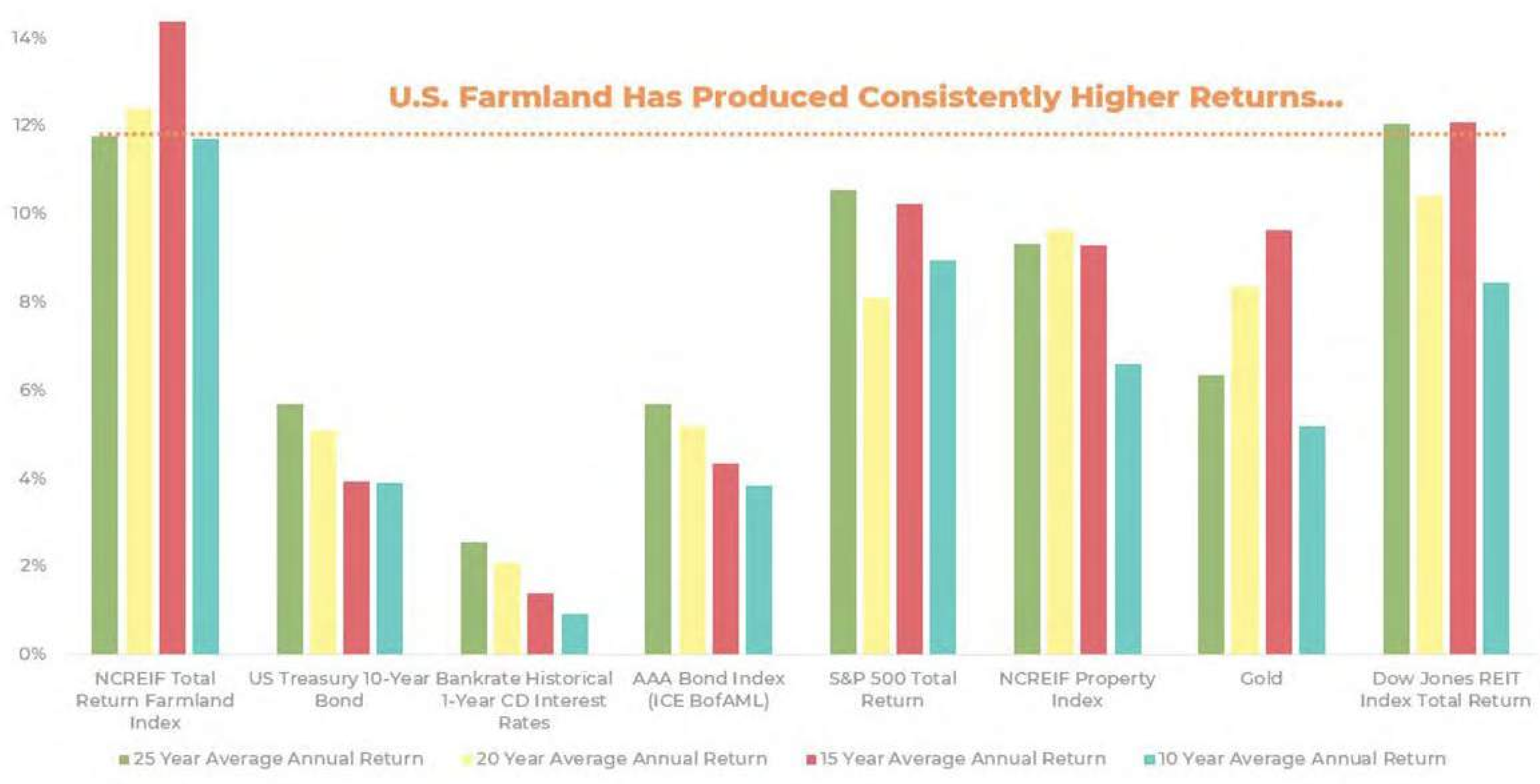


Compare this to the typical farmland plot, which carries little or no debt. Typical AcreTrader properties are debt-free too, meaning investors own 100% of the subject property without the involvement of banks or the risk of default.

Low Volatility

It seems fair to say that farmland appears to be an attractive investment option so far. While average historical returns suggest limited overall price volatility, **a look at historical price swings reveals another important variable in farmland returns: a lack of relative price volatility**.

Historical Returns on Asset Classes over Various Time Periods [1]



Historical Return Volatility on Asset Classes over Various Time Periods [1]

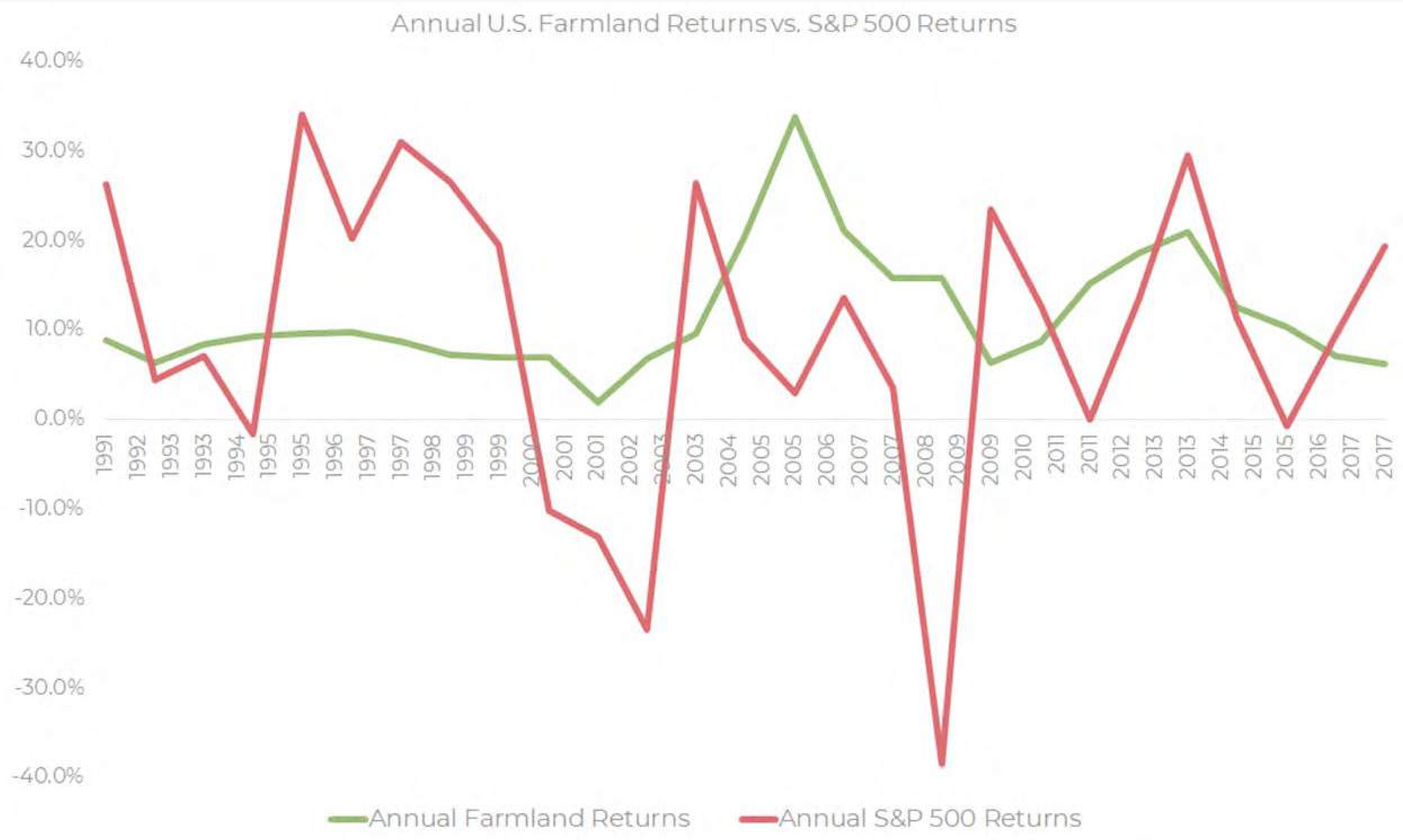
The first chart on the previous page shows farmland and other asset class returns over various time periods. As we have established, farmland exhibits some of the strongest return characteristics of any of the major asset classes. The second chart looks at the standard deviation (volatility) of those returns over various time periods.

These two charts show that **not only has farmland produced impressive returns, it has done so with far less volatility than any of the other asset classes** that even come close to it in terms of returns.

Non-Correlation

In addition to enjoying low volatility, farmland returns also move independently of the stock market. In fact, farmland historically has no relationship with stock market returns as seen in the chart below.

Annual U.S. Farmland Returns vs. S&P 500 Returns [1]



To be precise, the correlation between these two asset classes is r=-0.03. Said differently, there is **zero statistical evidence that stock market prices influence farmland prices** or *vice versa*.

The lack of correlation suggests farmland is a great diversification tool, mitigating the risk of loss in all assets at once. Additionally, the relative movement of farmland versus the S&P 500 index in the chart above demonstrates another key point:

In times of market turbulence like the Dot-com Crash of the early 2000s and the Great Recession of the late 2000s, t**he stock market made wild swings between large returns and massive losses, while farmland oscillated between large returns and small returns**.

Conclusion

It is easy to see the appeal of farmland, given its relative strengths as an asset class. Furthermore, I believe this humble, previously-overlooked asset will gain additional mainstream attention in the near future. As the supply of arable land continues to decrease and the global demand for food increases sharply in the coming decades, basic economics suggest the value of farmland could also increase - perhaps significantly.

For additional content about farmland investing, farm value drivers, and long-term supply and demand, please visit AcreTrader.com.

CARTER MALLOY

Founder and CEO

Carter grew up in a farming family and has had a lifelong passion for investing and agriculture. Prior to AcreTrader, he spent 5 years at a global equity investment firm. Before joining in 2013, Carter was a Managing Director with Stephens Inc., a large private investment bank, where he was an equity research analyst focused on the Data & Analytics and Real Estate sectors. Prior to Stephens, he owned businesses focused on internet marketing and sustainable fuel technologies. He graduated from the University of Arkansas with a bachelor's degree in Physics and has previously held Series 7, 63, 86, and 87 licenses with the Financial Industry Regulatory Authority (FINRA).

Sources:

(1) Data according to NCREIF, Bloomberg, and AcreTrader calculations. All calculations assume reinvestment of dividends
(2) USDA Nominal Farmland Values
(3) Rent information gathered from approximate averages of Midwest, Delta, and West Coast farmland in the USDA and Agriculture Land Values Survey (ALVS)
(4) USDA Farm Sector Equity assessment. Note 2018 is a forecasted value
(5) AcreTrader estimates

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To see AcreTrader's general risk statement about farmland investing, please go to bit.ly/at-riskstatement.

ABOUT ACRETRADER

What We Do

AcreTrader is a real estate investing platform that makes it easy to buy shares of farmland and earn passive income.

Why It Matters

United States farmland has historically outperformed most asset classes and other forms of real estate. Unfortunately, buying and maintaining farmland directly is extremely difficult. The few investment options that are available typically charge high fees, provide limited liquidity, and offer no choice over portfolio composition. In short, there has not been an easy, affordable way for most investors to participate. Until now.

How We Solve This Problem

Through our online platform that uses some aspects of crowdfunding, AcreTrader aims to provide security, transparency, and liquidity to people wanting to invest in farmland. Additionally, AcreTrader removes the headaches traditionally associated with land ownership by handling all aspects of administration and property management, from insurance and accounting to working with local farmers and improving soil sustainability.

Our Process

AcreTrader carefully reviews each farm, selecting less than 1% of the total parcels considered. AcreTrader then places each farm offering in a unique legal entity and offers shares to investors. (See the **"how it works"** page on our website for more details.)

Pricing Info

Each entity is divided into shares that are equivalent to 1/10 of an acre. For example, if you buy 20 shares, you would own the equivalent of 2 acres of farmland and the associated dividends. Accredited investors can get started in just minutes online.

Investing in Farmland. Simplified.

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