

Natural Resource Flash Report

Farmland: Resilience under Uncertainty

As the world moves into the final quarter of a tumultuous 2020, signs of a global recovery are emerging, following on one of the sharpest and deepest economic downturns experienced since the Great Depression.¹ The financial markets sustained seismic shocks in the first quarter of the year as global economic activities came to a halt.² Table 1 shows the quarterly returns of select asset classes through the first three quarters of 2020, with the stock markets losing nearly 20% of market values in the U.S. and other developed markets, represented by the S&P 500 and MSCI EAFE IMI indices, followed by consecutive quarters of recovery.³ The unprecedented volatility in stock markets have investors reflecting upon the relative performance of different sectors and asset classes from a historical perspective and highlights the necessity of real assets such as farmland to potentially add greater resilience and lower return variance in an institutional investor's portfolio.

Stock Markets in the U.S. and Other Developed Markets Saw Significant Volatility through the First Three Quarters of 2020

Table 1. Quarterly returns on the S&P 500 and MSCI EAFE IMI indices during 2020 Q1-Q3

	S&P 500	MSCI EAFE IMI
2020 Q1	-16.5%	-20.7%
2020 Q2	17.1%	15.1%
2020 Q3	8.4%	5.1%

Source: Macrobond February 2020

Note: All returns are annual returns expressed in USD. It is not possible to invest directly in an index.

Farmland is a long-term asset class that has a strong historical performance record of delivering competitive returns with low-to-moderate variance, while providing institutional investors favorable diversification benefits.⁴ This analysis provides

a comparison between the returns on U.S. farmland investments to the returns on U.S. public equities and U.S. 10-year government bonds, with the focus on periods that experienced exogenous shocks resulting in significant financial volatility.

¹ IMFBlog, April 14, 2020, <https://blogs.imf.org/2020/04/14/the-great-lockdown-worst-economic-downturn-since-the-great-depression/>

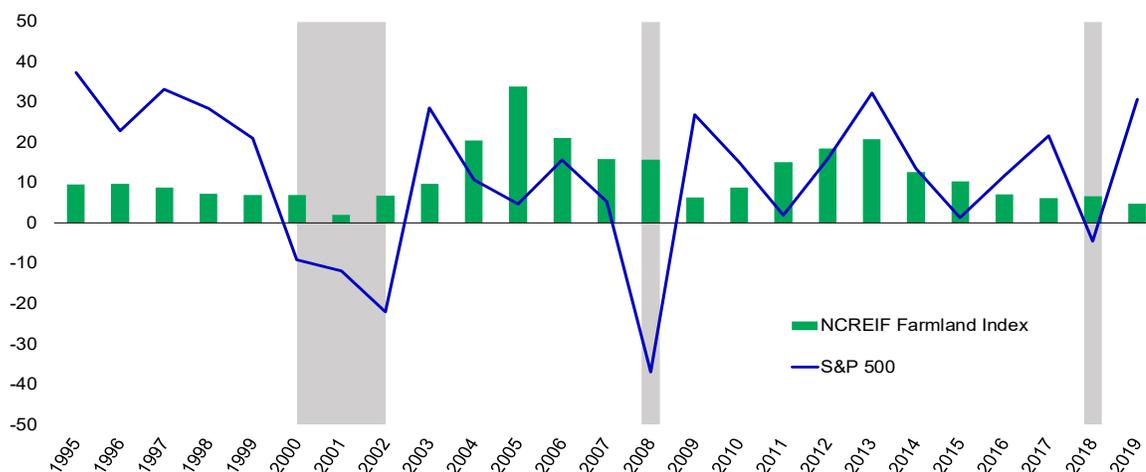
² CNBC, April 24, 2020, <https://www.cnbc.com/2020/04/24/coronavirus-pandemics-impact-on-the-global-economy-in-7-charts.html>

³ Macrobond, accessed on October 14, 2020.

⁴ Zhang, W., Mei, B., 2019. Journal of Real Estate Portfolio Management, <https://doi.org/10.1080/10835547.2019.12090026>

U.S. Farmland Delivered Consistent Positive Annual Returns Historically while U.S. Stock Markets Experienced Pronounced Volatilities

Chart 1. Annual percentage returns for NCREIF Farmland Index and the S&P 500 (1995-2019)



Source: Macrobond February 2020, NCREIF January 2020,

Note: All returns are annual returns expressed in USD. It is not possible to invest directly in an index. Shaded areas represent periods with negative stock market returns. Hancock Natural Resource Group is a participating member in the NCREIF Farmland Property Index. The Index requires participating managers to report all eligible properties to the Indices. Usage of this data is not an offer to buy or sell properties.

Chart 1 provides an overview of historical returns for U.S. farmland investments compared to equities during the 25-year period 1995-2019. U.S. farmland investment returns, represented by the NCREIF Farmland Index (green bars) showed positive total return performance in all of the past 25 years, while U.S. stocks (represented by the S&P 500) displayed more pronounced volatility, with more instances of negative performance. Table 2 shows that, using Sharpe ratios as a measure of risk-adjusted return, NCREIF Farmland Index (1.30) outperformed the S&P 500 (0.42) during the period 1995-2019. In comparison to public equities, farmland demonstrated more consistent and resilient performance.

U.S. Farmland Generated Better Risk-Adjusted Performance over U.S. Public Equities during the Past Quarter-Century

Table 2. Average annual percentage returns, standard deviation and Sharpe ratios for the S&P 500 and U.S. farmland investments (NCREIF Farmland Index) during 1995-2019

	S&P 500	NCREIF Farmland Index
1995-2019 Average	10.14%	11.51%
1995-2019 Standard Deviation	18.40%	7.08%
Sharpe Ratio	0.42	1.30

Source: Macrobond February 2020, NCREIF January 2020,

Note: All returns are annual returns expressed in USD. Sharpe ratio calculation uses a risk-free rate of 2.32%, proxied by the average yield on U.S. 30-Day Treasury Bill during 1995-2019. It is not possible to invest directly in an index. Hancock Natural Resource Group is a participating member in the NCREIF Farmland Property Index. The Index requires participating managers to report all eligible properties to the Indices. Usage of this data is not an offer to buy or sell properties.

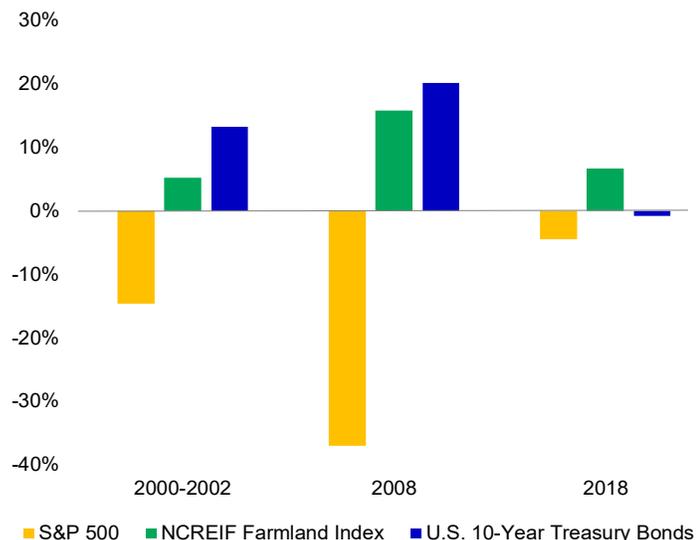
During 1995-2019, U.S. public equities experienced three periods of negative annual returns (shaded areas in Chart 1), i.e. 2000-2002, 2008 and 2018. In the first period, 2000-2002, the S&P 500 declined -38% over a three-year period, responding to the collapse of the “dot-com” bubble in 2000 and the 9/11 terrorist attacks in the U.S. the following year. In 2008, the Global Financial Crisis triggered a 37% drop in the S&P 500. Lastly, in 2018, the U.S. stock markets experienced a modest downturn reacting to tightening monetary policy, following the Federal Reserve implementing a series of interest rate hikes, and the uncertainty related to escalated trade disputes between the U.S. and major trading partners, including China.

Chart 2 compares the annual returns for public equities (represented by the S&P 500), U.S. farmland investments (represented by the NCREIF Farmland Index) and 10-Year U.S. government bonds during these three periods of financial and economic dislocation. In all three periods, U.S. farmland investments delivered positive returns.

During the 2000-2002 recession, U.S. farmland investments generated average annual returns of 5.3%, supported by appreciating farmland values, which compared favorably with annual returns of -14.5% on the S&P 500. In this period of financial and political upheaval returns on bonds were also favorable, averaging 13.3%, with investor’s seeking historically safe-haven, low risk assets.

U.S. Farmland Remained Resilient Historically When Stock Markets Tumbled

Chart 2. Annual returns for U.S. public stocks (represented by the S&P 500), U.S. farmland (represented by NCREIF Farmland Index) and U.S. 10-Year Treasury Bonds in 2000-2002, 2008 and 2018



Source: Macrobond February 2020, NCREIF January 2020

Note: All returns are annual returns expressed in USD. It is not possible to invest directly in an index. Hancock Natural Resource Group is a participating member in the NCREIF Farmland Property Index. The Index requires participating managers to report all eligible properties to the Indices. Usage of this data is not an offer to buy or sell properties.

During 2008, the S&P 500 lost 37.0%, as capital fled public equities while bonds rallied, gaining 22.2%. Although not matching the returns on bonds, U.S. farmland generated healthy positive returns (15.8%) in a year of economic crisis. Key contributors to the strong performance of farmland in 2008 were surging agricultural commodity prices driven by increasing international trade of farm products.

In 2018, the slow-down in the U.S. and global economies, led to a 4.4% drop in the S&P 500, while increasing interest rates and a flattened yield curve, pushed the annual return on long-term government bonds into negative territory (-0.1%). Despite the shift in monetary policy, farmland continued to generate positive returns (6.7%) for investors in 2018. Although markets for certain agricultural commodities were negatively impacted by the trade disputes between the U.S. and China beginning in 2018, a broad mix of agricultural crops and farm products allowed investors with diversified portfolios of farmland properties to weather a year of financial turbulence.

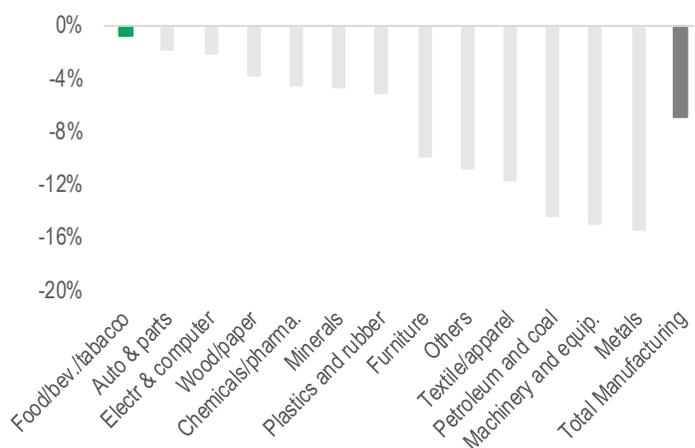
Recently reported manufacturing data suggest that the past patterns of resilience that have characterized agriculture-related investments could carry over into the current

economic downturn. Chart 3 shows the year-over-year changes in U.S. manufacturing output by sector between August 2019 and August 2020. The U.S. total manufacturing output in August 2020, as measured by the Industrial Output Index, was 7% lower than the level reached a year ago.⁵ In comparison to other sectors that sustained significant downtime, agriculture-related manufacturing sectors saw the least impact, with food/beverage/tobacco nearly recovered to the prior-year level (-0.8%), shown by the green bar, suggesting inherent resilience of the agriculture sector, even in times of economic dislocations.⁶

Global financial markets have experienced pronounced volatility in 2020, as the world experiences the worst recession since World War II.⁷ The current economic crisis is an example of the extreme volatility of equity markets and highlights the potential benefits of real assets such as farmland that could add greater resilience and lower return variance in an institutional investor's portfolio. As unexpected global events may continue to be a feature of the investment landscape, injecting unanticipated added volatility to the investment landscape, we believe that the inclusion of farmland investments can help to insulate a diversified portfolio from exogenous shocks to the economy and the financial environment, potentially bringing greater consistency and resilience to a portfolio's return profile.

Agriculture-Related Manufacturing Sector Productivity Level Nearly Recovered to the Prior-Year Level

Chart 3: Year-over-year percentage differences in output of manufacturing sectors as measured by changes in manufacturing industrial productivity indices in the U.S. between August 2019 and August 2020



Source: Board of Governors of the Federal Reserve System (US), Industrial Production: Manufacturing (NAICS) [IPNMAN], Retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/IPNMAN>, October 14, 2020.

⁵ Board of Governors of the Federal Reserve System (US), retrieved on October 14, 2020. Industrial Production: Manufacturing (NAICS) [IPNMAN], <https://fred.stlouisfed.org/series/IPNMAN>

⁶ Board of Governors of the Federal Reserve System (US), retrieved on October 14, 2020. Industrial Production: Nondurable manufacturing: Food, beverage, and tobacco [IPG311A2S], <https://fred.stlouisfed.org/series/IPG311A2S>

⁷ The World Bank, June 8, 2020. <https://www.worldbank.org/en/news/press-release/2020/06/08/covid-19-to-plunge-global-economy-into-worst-recession-since-world-war-ii>

HNRG Research Team

Court Washburn, Ph.D
Senior Managing Director
cwashburn@hnrq.com

Mary Ellen Aronow
Director,
Forest Economics
maronow@hnrq.com

Elizabeth Shestakova
Economic Research Analyst
eshestakova@hnrq.com

Keith Balter
Managing Director,
Economic Research
kbalter@hnrq.com

Daniel V. Serna
Associate Director,
Senior Agricultural Economist
dserna@hnrq.com

Weiyi Zhang, Ph.D
Senior Natural Resource
Economist
wzhang@hnrq.com

About Hancock Natural Resource Group

Hancock Natural Resource Group, Inc. is a registered investment adviser and part of Manulife Investment Management's Private Markets platform. We specialize in global farmland and timberland portfolio development and management on behalf of our investors worldwide. Our timber division manages approximately 6 million acres of timberland across the United States and in Canada, New Zealand, Australia, and Chile. Our agricultural investment group oversees approximately 300,000 acres of prime farmland in major agricultural regions of the United States and in Canada and Australia.

About Manulife Investment Management

Manulife Investment Management is the global wealth and asset management segment of Manulife Financial Corporation. We draw on more than 150 years of financial stewardship to partner with clients across our institutional, retail, and retirement businesses globally. Our specialist approach to money management includes the highly differentiated strategies of our fixed-income, specialized equity, multi-asset solutions, and private markets teams.

Important Information

A widespread health crisis such as a global pandemic could cause substantial market volatility, exchange trading suspensions and closures, and affect portfolio performance. For example, the novel coronavirus disease (COVID-19) has resulted in significant disruptions to global business activity. The impact of a health crisis and other epidemics and pandemics that may arise in the future, could affect the global economy in ways that cannot necessarily be foreseen at the present time. A health crisis may exacerbate other pre-existing political, social and economic risks. Any such impact could adversely affect the portfolio's performance, resulting in losses to your investment.

Investing involves risks, including the potential loss of principal. Financial markets are volatile and can fluctuate significantly in response to company, industry, political, regulatory, market, or economic developments. These risks are magnified for investments made in emerging markets. Currency risk is the risk that fluctuations in exchange rates may adversely affect the value of a portfolio's investments.

The information provided does not take into account the suitability, investment objectives, financial situation, or particular needs of any specific person. You should consider the suitability of any type of investment for your circumstances and, if necessary, seek professional advice.

This material, intended for the exclusive use by the recipients who are allowable to receive this document under the applicable laws and regulations of the relevant jurisdictions, was produced by, and the opinions expressed are those of, Manulife Investment Management as of the date of this publication, and are subject to change based on market and other conditions. The information and/or analysis contained in this material have been compiled or arrived at from sources believed to be reliable, but Manulife Investment Management does not make any representation as to their accuracy, correctness, usefulness, or completeness and does not accept liability for any loss arising from the use of the information and/or analysis contained. The information in this material may contain projections or other forward-looking statements regarding future events, targets, management discipline, or other expectations, and is only as current as of the date indicated. The information in this document, including statements concerning financial market trends, are based on current market conditions, which will fluctuate and may be superseded by subsequent market events or for other reasons. Manulife Investment Management disclaims any responsibility to update such information.

Neither Manulife Investment Management or its affiliates, nor any of their directors, officers or employees shall assume any liability or responsibility for any direct or indirect loss or damage or any other consequence of any person acting or not acting in reliance on the information contained herein. All overviews and commentary are intended to be general in nature and for current interest. While helpful, these overviews are no substitute for professional tax, investment or legal advice. Clients should seek professional advice for their particular situation. Neither Manulife, Manulife Investment Management, nor any of their affiliates or representatives is providing tax, investment or legal advice. Past performance does not guarantee future results. This material was prepared solely for informational purposes, does not constitute a recommendation, professional advice, an offer or an invitation by or on behalf of Manulife Investment Management to any person to buy or sell any security or adopt any investment strategy, and is no indication of trading intent in any fund or account managed by Manulife Investment Management. No investment strategy or risk management technique can guarantee returns or eliminate risk in any market environment. Diversification or asset allocation does not guarantee a profit nor protect against loss in any market. Unless otherwise specified, all data is sourced from Manulife Investment Management.

Manulife Investment Management

Manulife Investment Management is the global wealth and asset management segment of Manulife Financial Corporation. We draw on more than 150 years of financial stewardship to partner with clients across our institutional, retail, and retirement businesses globally. Our specialist approach to money management includes the highly differentiated strategies of our fixed-income, specialized equity, multi-asset solutions, and private markets teams—along with access to specialized, unaffiliated asset managers from around the world through our multimanager model.

Hancock Natural Resource Group

Hancock Natural Resource Group, Inc. is a registered investment adviser and part of Manulife Investment Management's Private Markets platform. We specialize in global farmland and timberland portfolio development and management on behalf of our investors worldwide. Our timber division manages approximately 6 million acres of timberland across the United States and in Canada, New Zealand, Australia, and Chile. Our agricultural investment group oversees approximately 300,000 acres of prime farmland in major agricultural regions of the United States and in Canada and Australia.

These materials have not been reviewed by, are not registered with any securities or other regulatory authority, and may, where appropriate, be distributed by the following Manulife entities in their respective jurisdictions. Additional information about Manulife Investment Management may be found at www.manulifeim.com/institutional

Australia: Hancock Natural Resource Group Australasia Pty Limited., Manulife Investment Management (Hong Kong) Limited. **Brazil:** Hancock Asset Management Brasil Ltda. **Canada:** Manulife Investment Management Limited, Manulife Investment Management Distributors Inc., Manulife Investment Management (North America) Limited, Manulife Investment Management Private Markets (Canada) Corp. **China:** Manulife Overseas Investment Fund Management (Shanghai) Limited Company. **European Economic Area and United Kingdom:** Manulife Investment Management (Europe) Ltd. which is authorised and regulated by the Financial Conduct Authority, Manulife Investment Management (Ireland) Ltd. which is authorised and regulated by the Central Bank of Ireland **Hong Kong:** Manulife Investment Management (Hong Kong) Limited. **Indonesia:** PT Manulife Aset Manajemen Indonesia. **Japan:** Manulife Investment Management (Japan) Limited. **Malaysia:** Manulife Investment Management (M) Berhad (formerly known as Manulife Asset Management Services Berhad) 200801033087 (834424-U) **Philippines:** Manulife Asset Management and Trust Corporation. **Singapore:** Manulife Investment Management (Singapore) Pte. Ltd. (Company Registration No. 200709952G) **South Korea:** Manulife Investment Management (Hong Kong) Limited. **Switzerland:** Manulife IM (Switzerland) LLC. **Taiwan:** Manulife Investment Management (Taiwan) Co. Ltd. **United States:** John Hancock Investment Management LLC, Manulife Investment Management (US) LLC, Manulife Investment Management Private Markets (US) LLC and Hancock Natural Resource Group, Inc. **Vietnam:** Manulife Investment Fund Management (Vietnam) Company Limited.

Manulife Investment Management, the Stylized M Design, and Manulife Investment Management & Stylized M Design are trademarks of The Manufacturers Life Insurance Company and are used by it, and by its affiliates under license.