

## **The Quadratic Deflation ETF (NYSE ticker: BNDD)**

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## About Quadratic Capital Management and Krane Funds Advisors, LLC

### Quadratic Capital Management

Quadratic Capital Management is an innovative asset management firm founded in 2013 by Nancy Davis. The firm has utilized its significant expertise in fixed income and options markets to construct BNDD. Quadratic Capital Management serves as the Investment Sub-Adviser to the BNDD ETF.

### Krane Fund Advisors, LLC

Krane Funds was founded in 2013 by Jonathan Krane and manages approximately \$10 billion. The firm seeks to provide innovative, first to market strategies that have been developed based on the firm and its partners' deep knowledge of investing. Krane Funds is majority owned by China International Capital Corporation (CICC). Krane Funds Advisors serves as the Investment Adviser to the BNDD ETF.



## Select Quadratic Capital Highlights, Milestones, and Awards

**September 2019:**

Forbes profiles Nancy Davis



**March 2020:**

Nancy Davis named to inaugural Barron's "100 Most Influential Women in U.S. Finance" list



**October 2022:**

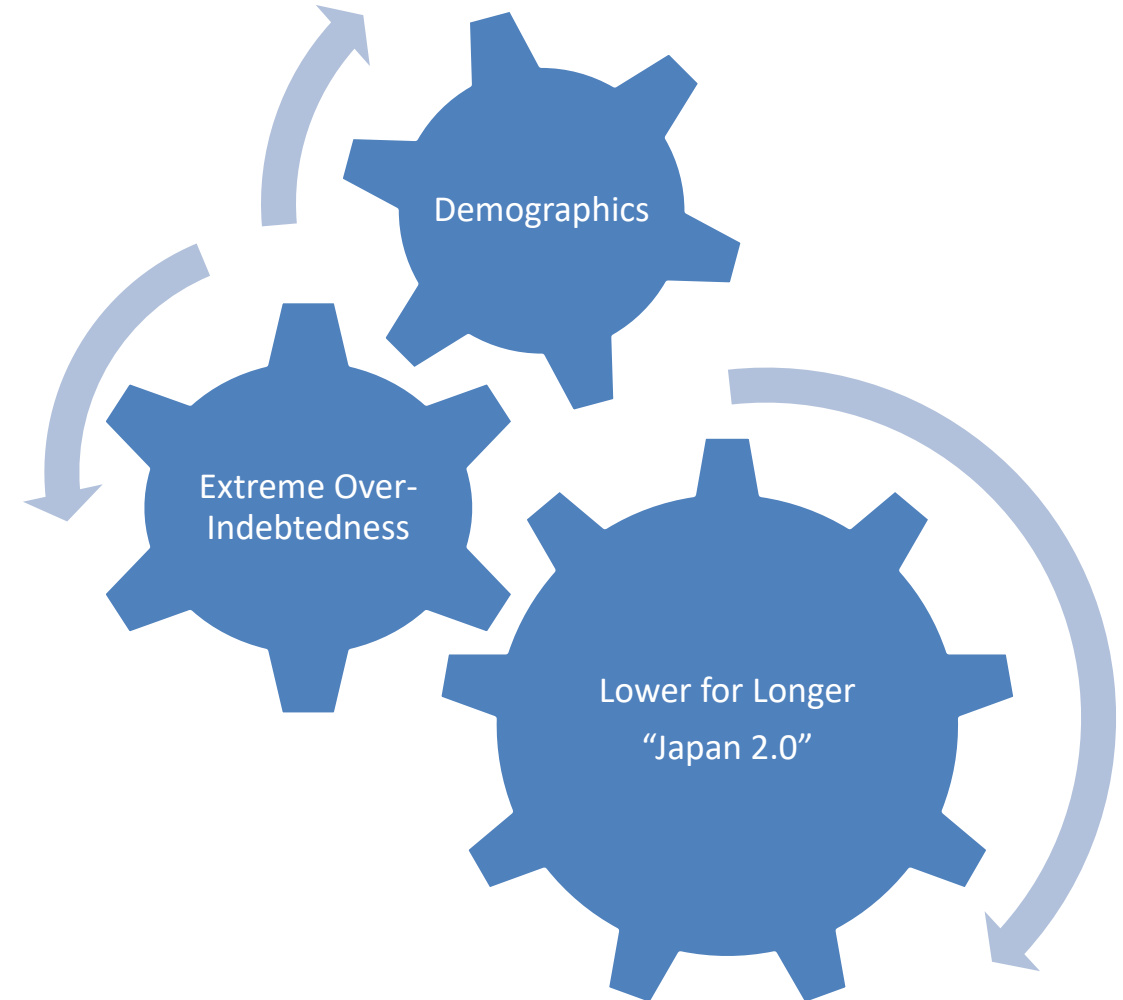
Wall Street Journal profiled 6 investors' market views and strategies



## Problem: The Debt Machine is Challenging Investors

Extreme over-indebtedness has been dramatically worsened by multiple rounds of fiscal stimulus in response to the global pandemic. Deflation may be the most challenging economic environment for investors.

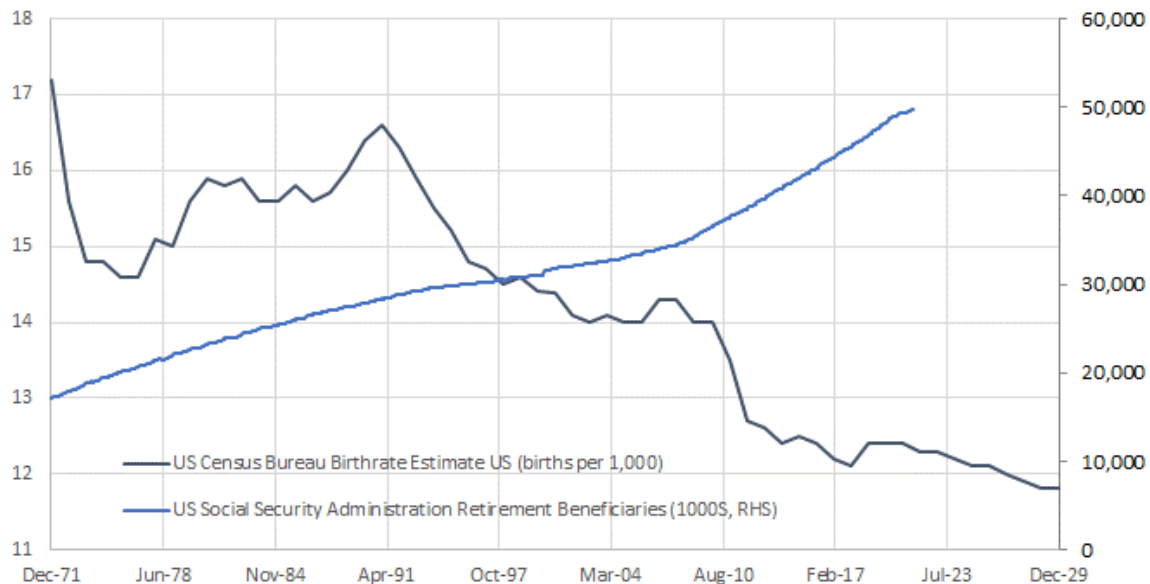
- Is the US different from Japan and Europe?
- Are fundamentals too weak to sustain current yields?
- After years of loose policy and stimulus, will a more hawkish Fed choke off growth and lead to lower long term interest rates?
- Do demographics and high debt service costs breed more and more debt until we reach deflation?
- Is there a way out of this debt trap?



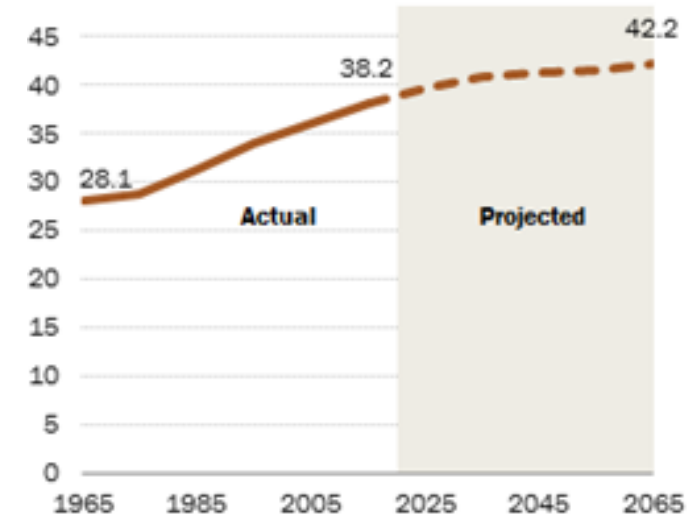
## Demographics

- The US population is aging, and the baby boomers are retiring.
- The birthrate in the US has been falling since the early '90s. The Census Bureau estimates that this decline will continue.
- An economy is strengthened by people having babies, consuming and working. When population growth stalls, the costs of government programs are spread over fewer people.
- The median age in the US has increased by roughly 50% since 1965.

US Census Bureau Birthrate Estimate vs. Social Security Benefits



U.S. median age projected to reach 42 by 2065

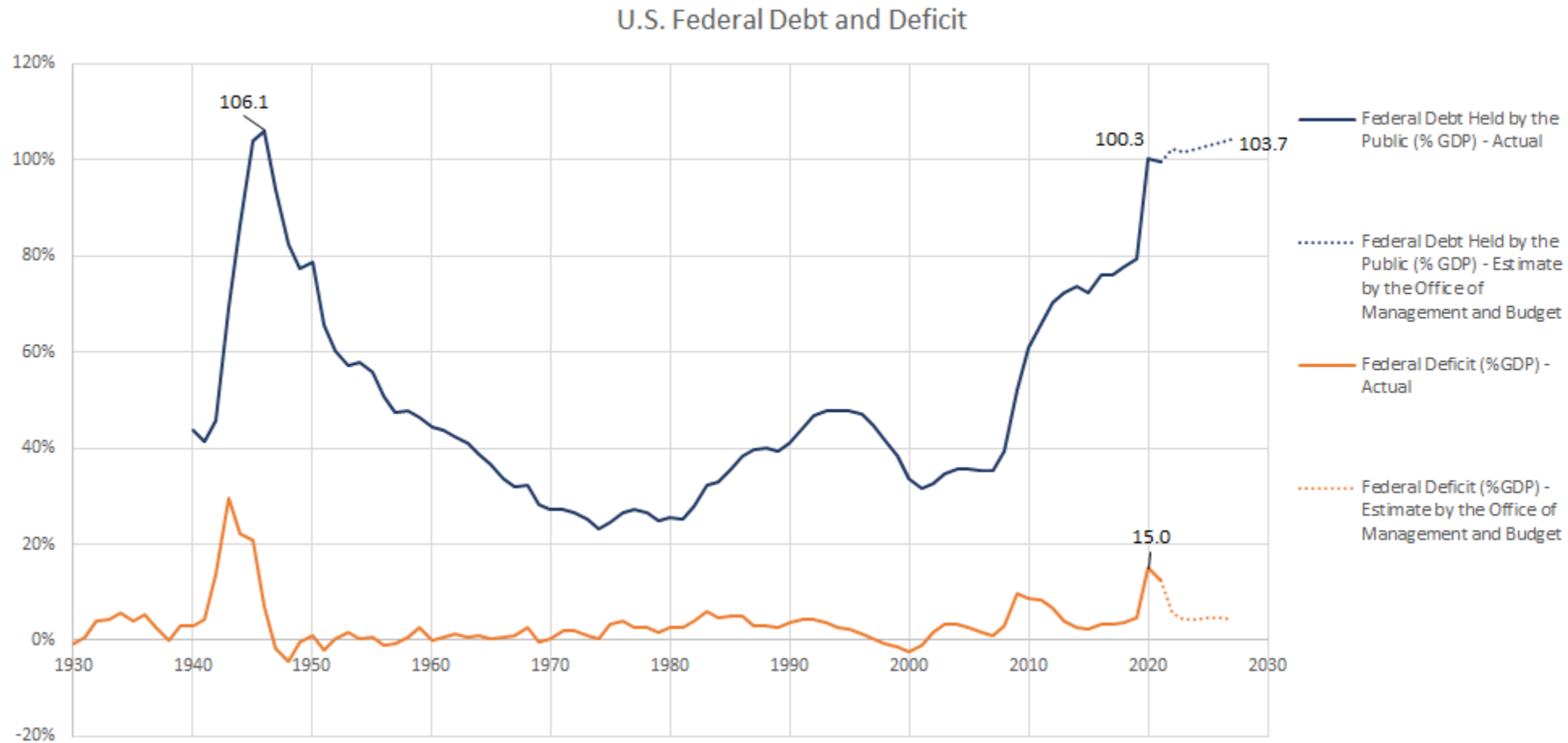


Source: Pew Research for 1965-2015 based on adjusted census data. Projections for 2015-2065

Sources: 1- U.S. Census Bureau, Population Division, March 2018 - Up to 2016 is data, then projections.  
2 - Social Security Administration as of July 2021

## Extreme Indebtedness

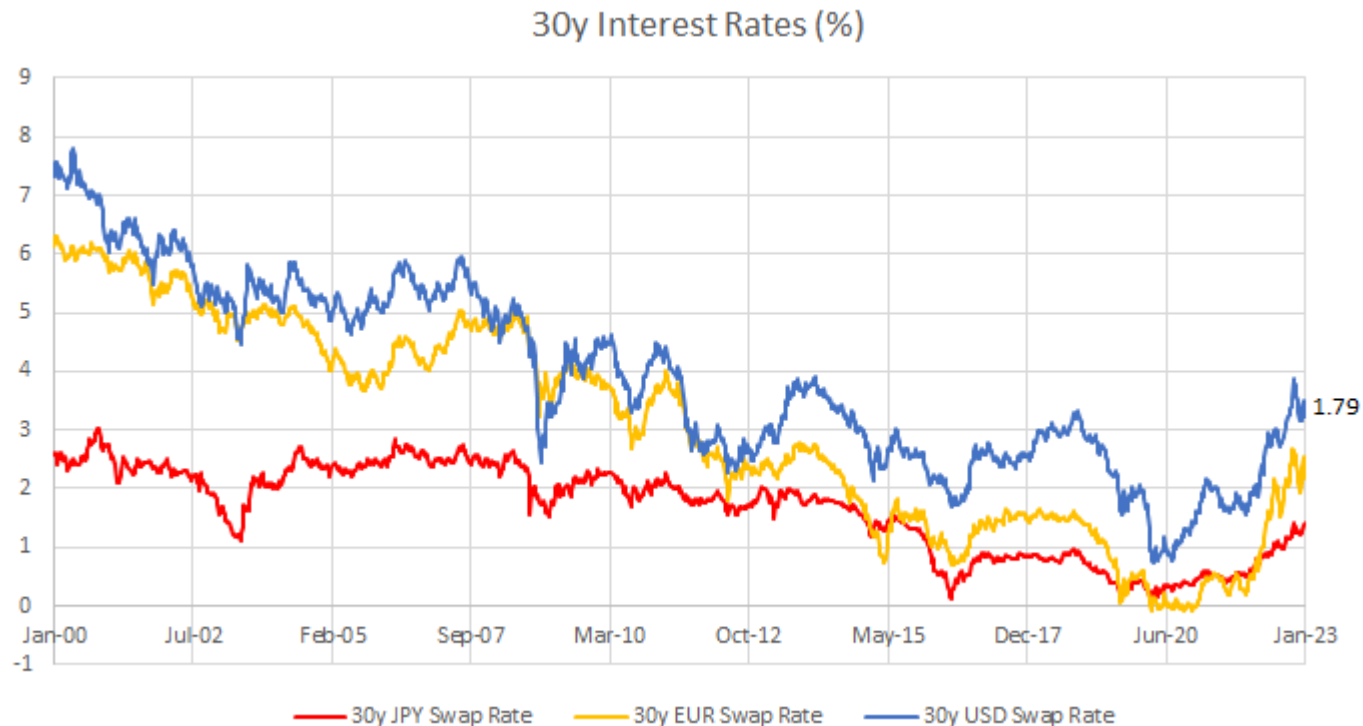
- While many believe stimulus spurs growth, it has ballooned the federal debt to well beyond 100% of GDP.
- These are debt levels never seen outside of wartime.





## Lower for Longer: How different is the US from Europe and Japan?

- Global long term interest rates have plummeted over the past three decades amid a surge in sovereign debt issuance.
- This may have created a perverse incentive for central banks to keep interest rates “lower for longer.”
- Is the US heading down the path blazed by Japan and the Eurozone? Are global rates ever going back to the 2000 levels?



## BNDD: Built to Help Investors Navigate the Debt Machine

- The Quadratic Deflation ETF (the “Fund”) seeks to benefit from lower growth, deflation, lower or negative long-term interest rates, and/or a reduction in the spread between shorter and longer term interest rates by investing in U.S. Treasuries and options. As a secondary goal, the Fund seeks to adhere to Environmental, Social and Governance (“ESG”) principles by excluding investments in issuers that are involved in and/or that derive significant revenue from, certain practices, industries or product lines and by increasing the representation of underrepresented groups in the governance of ETFs..
- It provides access to a part of the market usually reserved for large institutions
- It may potentially help hedge a portfolio against the effects of deflation and/or the compression of the yield curve.

### Unique Access

- Provides access to OTC fixed income options market which is typically not available to investors directly.

### Asymmetric Upside

- Has the potential for enhanced returns in periods of lower growth.
- Option downside is limited to the market value of the options.\*

### Portfolio Diversification

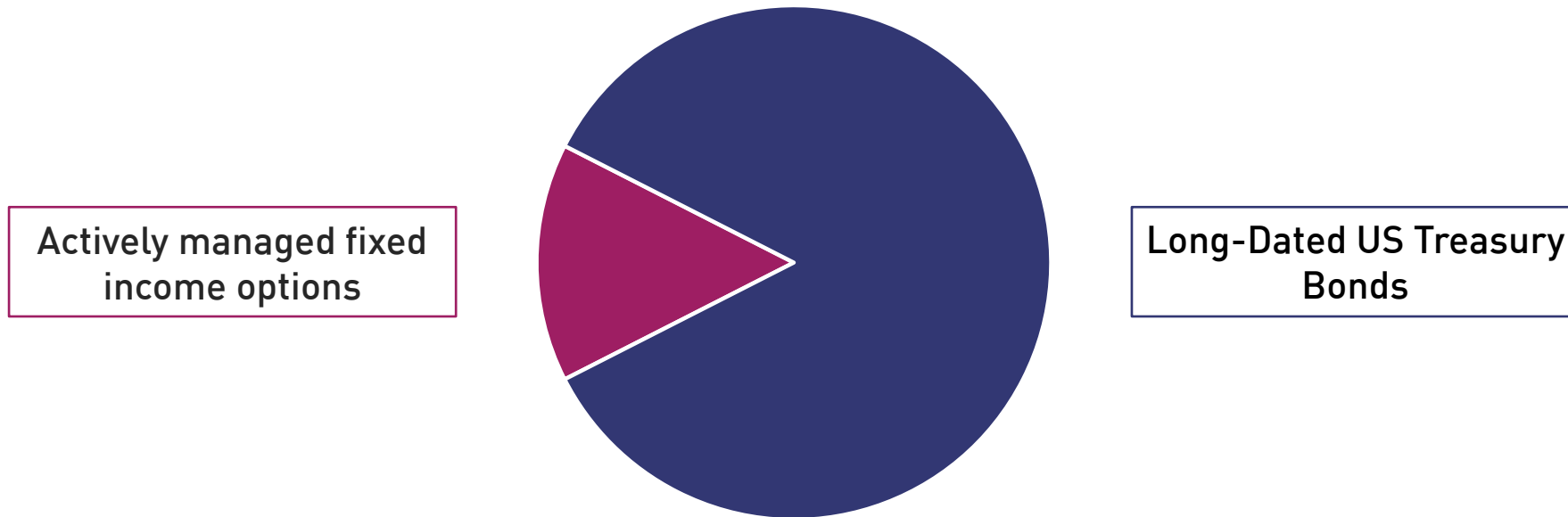
- A potential diversifier to a traditional 60/40 portfolio.
- Bonds have historically increased during large equity sell-offs.

\* This statement applies to the options within the ETF. As with all ETF's, the ETF investor's downside risk is equal to their investment in the Fund.



## BNDD Portfolio Composition

- The BNDD portfolio is composed primarily of long dated US treasury bonds.
- In addition to bonds, the portfolio includes long-only options on the shape of the US interest rate curve.
- As interest rates decline, the bonds should appreciate in price.
- The options provide exposure to spread between interest rates at different points in time.
- As the curve flattens because of lower inflation expectations and/or deflation, the price of the options tends to increase.



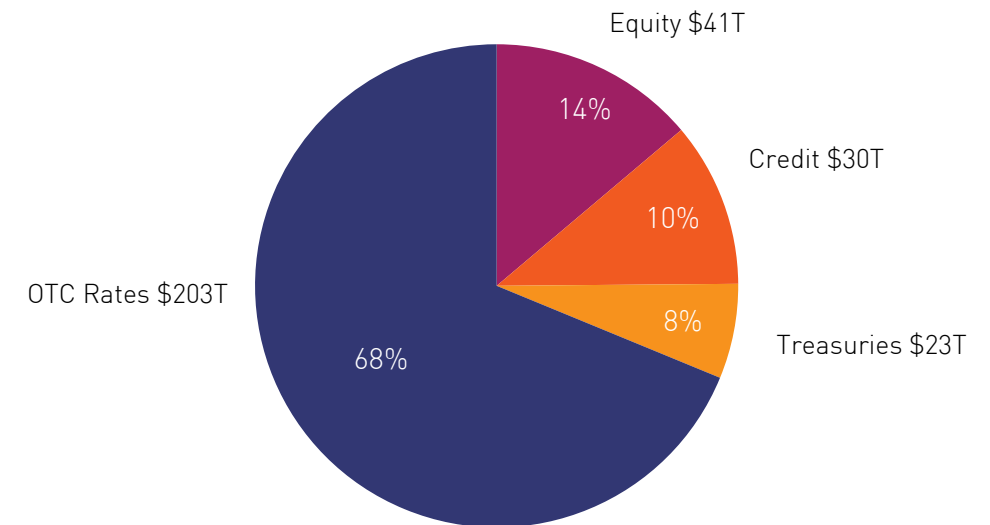
## BNDD Provides Access to the Largest Asset Class: Rates

- BNDD provides access to the largest asset class.
- Most investors limit their exposure to stocks and bonds.
- The rates market is nearly 5 times larger than the US stock market.

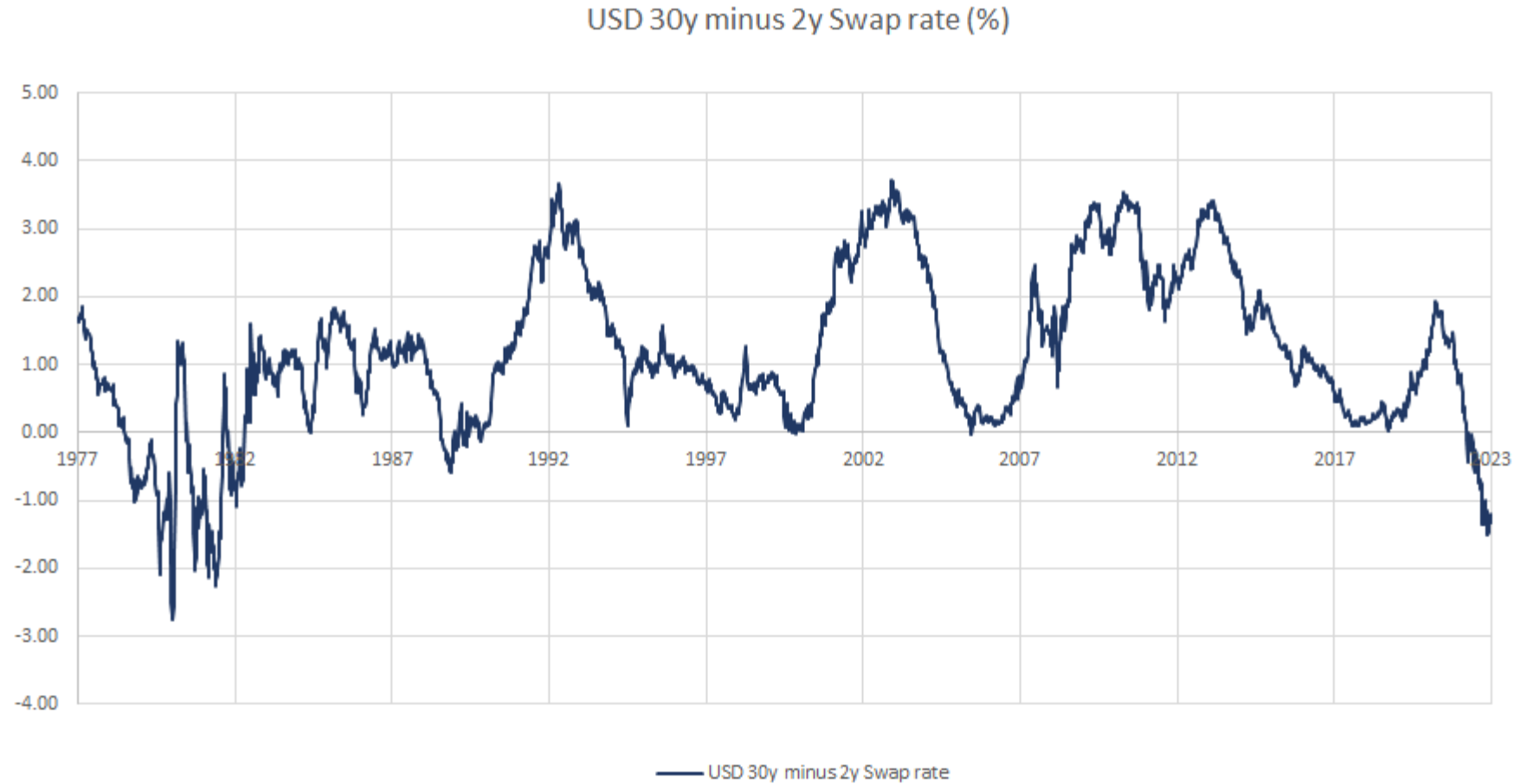
### Potential Benefits:

- By incorporating options, BNDD may enhance a portfolio only consisting of bonds.
- BNDD is a fixed income strategy designed to benefit from the decline in interest rates and flattening or inverting of the yield curve.
- BNDD may act as a market hedge since bond prices have historically increased during large equity sell-offs.

### US Market Size (\$ Trillions USD):



## 2s30s USD Curve: There is No Zero Bound

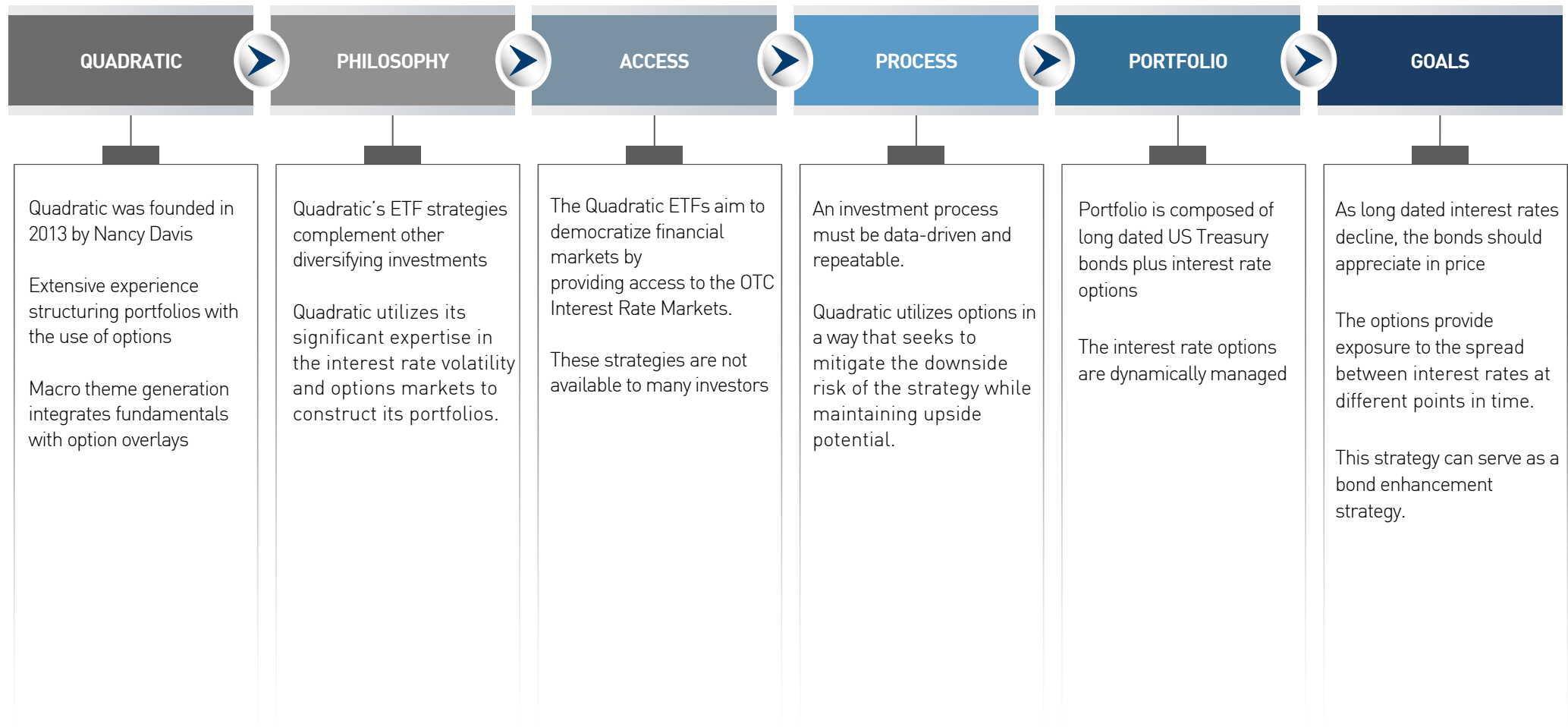


Source: Bloomberg and Quadratic Calculations as of January 2023

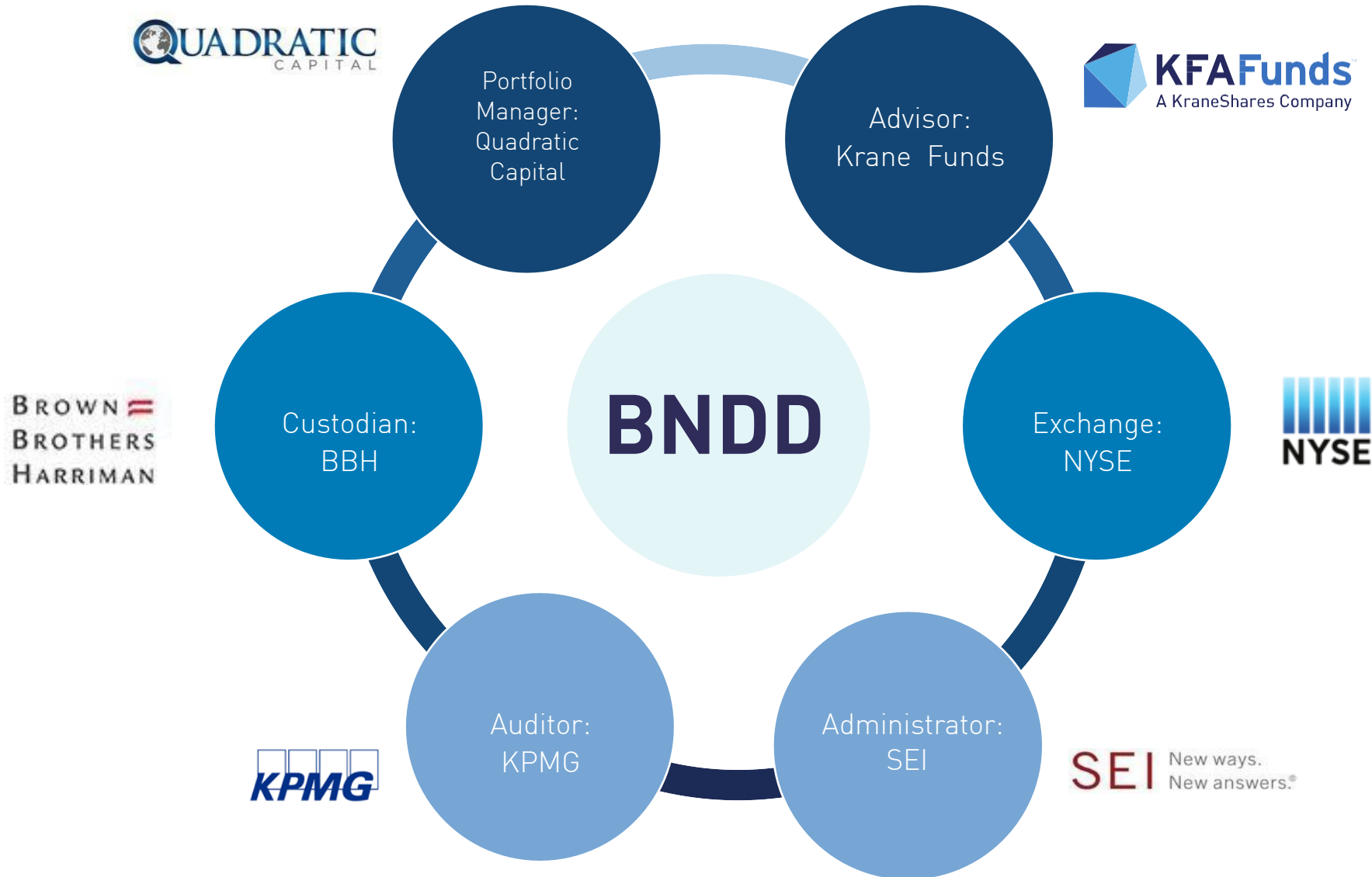
\*From start to 1994, it is the difference between the 30y and the 2y treasury yields. From 1995 onwards it is the difference between the 30y and the 2y swap rates. The U.S. interest rate swap curve is a type of interest rate curve that reflects the fixed interest rates used in interest rate swap agreements with different maturities. Swap rates are the fixed interest rate exchanged for a floating interest rate in an interest rate swap.

## Quadratic Capital – Our Approach to Investing

BNDD is managed by Quadratic Capital, an innovative, woman-owned asset manager with extensive expertise in options trading and portfolio management.



## The BNDD Ecosystem



## BNDD Risk Profile

Investing involves risk, including possible loss of principal. There can be no assurance that the Fund will achieve its stated objectives, including its objective of eliminating deflation risk. Investors should take note of the following risks before investing in BNDD. A more thorough discussion of options investing can be found on the Options Clearing Corporation's website. A link to which can be found in the Important Notes section of this presentation.

- **A Steepening Yield Curve Risk:** BNDD may underperform or lose money when the forward U.S. interest rate curve steepens, perhaps significantly. When this occurs the Fund's investments may generally underperform a portfolio consisting solely of U.S. government bonds.
- **Leverage Risk:** BNDD's OTC options may give rise to a form of leverage, which may magnify the Fund's potential for gain and the risk of loss. The Fund may potentially be more volatile than a portfolio of traditional investments such as stocks or bonds.
- **Liquidity & Counterparty Risk:** OTC options may be subject to liquidity risk and counterparty risk.
- **Credit & Non-Curve Interest Rate Risk:** BNDD's use OTC options is not intended to mitigate counterparty risk, or non-curve interest rate risk. Additionally, BNDD invests in debt securities, which typically decrease in value when interest rates rise.
- **Considered Speculative:** Investing in options tied to the shape of the forward swap curve is considered speculative and can be extremely volatile.
- **Concentration Risk:** The fund is non diversified.

## About Quadratic Capital Management and Krane Funds Advisors, LLC

### Quadratic Capital Management

Quadratic Capital Management is an innovative asset management firm founded in 2013 by Nancy Davis. The firm has utilized its significant expertise in the interest rate volatility and options markets to construct BNDD. Quadratic Capital Management serves as the Investment Sub-Adviser to the BNDD ETF.

### Krane Fund Advisors, LLC

KFA Funds is a premier platform for developing and delivering differentiated, high-conviction investment strategies to global investors. We are passionate about identifying and delivering groundbreaking capital market opportunities. We believe that investors should have cost-effective and transparent tools for attaining exposure to a wide variety of asset classes. Our goal is to become a leading source of non-traditional diversification. KFA Funds are managed by Krane Funds Advisors, LLC.



## Dedicated to responsible investing with a strong focus on ESG



**Krane Funds is a UN PRI signatory and as such adheres to the following principles:**

- To be active owners and incorporate ESG issues into our ownership policies and practices
- To seek appropriate disclosure on ESG issues by the entities in which we invest
- To promote acceptance and implementation of the Principles within the investment industry
- To work together to enhance our effectiveness in implementing the Principles
- To report on our activities and progress towards implementing the Principles



**Quadratic Capital Management LLC is a member of the SASB Alliance. The Firm is a:**

- Registered Small/Minority Business Enterprise
- Majority woman-owned firm
- Supports the elevation of financially material ESG standards
- The ESG principles used by the Fund are based on the framework published by the Sustainability Accounting Standards Board ("SASB")



**BNDD is an ESG fixed income fund, the Fund:**

- Democratizes financial markets by giving investors access to OTC rates markets
- Adheres to ESG principles by excluding issuers involved in certain practices, industries or product lines according to the ESG framework published by the SASB Alliance
- Focuses on diversification and incorporates ESG issues into investment analysis and decision-making processes

## Portfolio Management and Capital Markets Leadership



[Nancy Davis, Chief Investment Officer, Quadratic Capital Management](#)

Nancy Davis founded Quadratic Capital in 2013. Nancy is the portfolio manager for the Quadratic Deflation ETF (Ticker: BNDD) and the Quadratic Interest Rate Volatility and Inflation Hedge ETF (Ticker: IVOL). Nancy began her career at Goldman Sachs where she spent nearly ten years, the last seven with the proprietary trading group where she became Head of Credit, Derivatives and OTC Trading.

Nancy has been the recipient of numerous industry recognitions. Barron's named her to their inaugural list of the "100 Most Influential Women in U.S. Finance." Institutional Investor called her a "Rising Star of Hedge Funds." The Hedge Fund Journal tapped her as one of "Tomorrow's Titans."

Nancy writes and speaks frequently about markets and investing. She has been profiled by Forbes, and interviewed by Barron's, The Economist, The Wall Street Journal, and The Financial Times among others. Ms. Davis is a frequent guest on television including CNBC, Bloomberg, CNN, CBS and ABC.



[Glenn Christal, Chief Operating Officer, Quadratic Capital Management](#)

Glenn Christal is responsible for overseeing the business and trading operations for the company. Previously, Glenn Christal was at Tudor Investment Corp, a multi-billion macro hedge fund, for fifteen years where he was the Treasurer and chair of the Treasury and Credit Committees. Mr. Christal oversaw collateral management, cash management, credit and trade documentation negotiations. His prior role was the Chief Operations Officer at Millennium Partners where he oversaw trade operations.



[Henrique Rocha, Market Strategist, Quadratic Capital Management](#)

Henrique Rocha joined Quadratic in 2015. Previously, he worked at Goldman Sachs as an Interest Rates and Foreign Exchange Strategist, responsible for idea generation for institutional clients, including banks, corporations, hedge funds, asset managers, and sovereigns.

He holds a B.S. magna cum laude in Electrical Engineering from Yale University, where he was a member of Phi Beta Kappa and Tau Beta Pi.

## Quadratic Capital and Krane Funds Leadership



[Jonathan Krane, Chief Executive Officer, Krane Funds Advisors](#)

Jonathan Krane is the founder and Chief Executive Officer of Krane Funds Advisors, the premier platform for developing and delivering differentiated, high-conviction investment strategies to global investors and KraneShares, an asset management firm delivering China-focused exchange traded funds to global investors.



[Jonathan Shelon, Chief Operating Officer, Krane Funds Advisors](#)

Jonathan is the Chief Operating Officer at KraneShares. Prior to KFA, he was the Chief Investment Officer of the Specialized Strategies Team at J.P. Morgan, overseeing \$40 billion in AUM and a Portfolio Manager at Fidelity Investments where he was responsible for \$150 billion in assets for over five million shareholders in Fidelity's target date strategies, the Freedom Funds.



[Odette Gafner, Chief Compliance Officer, Krane Funds Advisors](#)

Odette Gafner is Head of Compliance at KFA and joined the firm March in 2019 to oversee the compliance program for the Funds and to serve as the Chief Compliance Officer (CCO) to Krane Fund Advisors. Odette has over 12 years of experience implementing policies and establishing best practice across the asset management industry. Prior to joining the KraneShares team, Odette worked at BlackRock for 12 years.



[James Maund, Head of Capital Markets, Krane Funds Advisors](#)

James Maund joined KraneShares as head of Capital Markets in January 2020. James has more than 15 years of experience in ETF trading and capital markets. Prior to joining KraneShares, James was a vice president in the Institutional ETF Group / ETF Capital Markets Group at State Street Global Advisors. Prior to State Street, James was an ETF trader at Goldman Sachs & Co.

## Quadratic Capital and Krane Funds Leadership



[Brendan Ahern, Chief Investment Officer, Krane Funds Advisors](#)

Brendan Ahern is the Chief Investment Officer at Krane Funds Advisors (KFA). Mr. Ahern joined KFA in 2012 and was an original member of the team that launched its first ETFs. He leads the firm's research and education efforts and actively works with investors on a variety of subjects ranging from asset allocation to trading to articulating the growing influence that index providers hold in the asset management industry. Prior experience includes over ten years with Barclays Global Investors (subsequently BlackRock's iShares), which he joined in 2001 during the rollout of their ETF business.



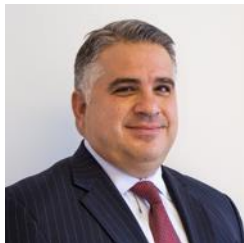
[Julian Daniels, Managing Director, Krane Funds Advisors](#)

Julian Daniels joined KraneShares in August 2018 as a Managing Director to head the firm's institutional efforts. Prior to KraneShares, Julian was a senior member of the VanEck institutional business development team. Prior to VanEck, he was an Associate at Select Access Management.



[Florence Moon, Director, Krane Funds Advisors](#)

Florence Moon joined KraneShares in June 2019 as a Director to support the firm's institutional efforts. Florence has over 12 years of experience working with institutional clients, handling all aspects of client service and relationship development. Prior to KraneShares, Florence spent 12 years with VanEck Global where she was a senior member of the institutional business development team.



[Guy Ferrara, Managing Director, Krane Funds Advisors](#)

Guy has spent the last 20 years in the asset management industry. Prior to KFA, Guy worked for UBS in client education, portfolio construction, and asset retention. Over the course of his 20-year career his mission has always been improving real financial outcomes for client's and the financial advisors who serve them.

## Quadratic Capital and Krane Funds Leadership



[Joseph Dube, Head of Marketing, Krane Funds Advisors](#)

Joseph joined KraneShares in June 2012 as Head of Marketing. He is in charge of creating and maintaining all client-facing marketing materials including websites, advertisements, pitch books, and fact sheets as well as the bi-weekly research newsletter. He takes pride in designing and developing the highest quality educational material for retail investors, financial advisors, and journalists. Joseph has a BFA from the Rochester Institute of Technology. He was a Rotary Youth Exchange student to Argentina and is fluent in Spanish.



[Libby Landis, Vice President, Product Marketing, Krane Funds Advisors](#)

Libby joined KraneShares marketing department in March of 2019 to create marketing content for current and prospective institutional and retail investors. Through use of articles, webinars, press releases, research and brand partnerships Libby aims to produce content that is engaging, relevant and educational to KraneShares' audience. Libby began her career in art business, working for institutions such as The Met, Sotheby's and digital art commerce firm, Paddle8. In 2015 she went back to school for a Master degree in Integrated Marketing at NYU. While in school Libby established an interest in financial marketing while working for global macro hedge fund, Key Square Capital Management.



[Brooke Farley, Business Development, Quadratic Capital Management](#)

Brooke Farley joined Quadratic in 2018. Previously, she was a consultant for McKinsey & Company and a risk underwriter at Bond Investors Guaranty. Ms. Farley received her BA in Art History from Manhattanville College and received a Master of International Affairs (MIA) from Columbia University's School of International and Public Affairs. Ms. Farley holds her Series 7 and Series 63 Securities licenses.

## Guide to Trading ETFs

ETF liquidity is determined by the asset class, not by the fund size

- Exchange-traded funds (ETFs) are a wrapper, and although an investor may hold a large percentage of an ETF, one must look at the percentage owned of the underlying asset class.

ETF investors are not impacted by other investors' trades in the same ETF

- The ETF structure is unique in that all investors transact independently on an exchange. Being a large or small owner in a fund does not mean you're more or less impacted by the actions of other investors. In a mutual fund, all investors are impacted by the trading activity of other holders in the fund.

An ETF closure does not create principal risk

- If a fund were to close, neither large nor small investors would have a principal risk. The fund would be liquidated by the portfolio manager, and the investors would receive back NAV of the fund, minus costs, at the time of liquidation.

Trading in and out and fund size

- Investors can trade in and out of a fund regardless of the fund's AUM. ETF liquidity providers (market makers) can easily transfer the liquidity of the underlying basket into ETF shares. Market makers also accept NAV based orders for larger tickets.

## Understanding ETF Liquidity

### An ETF is not a stock

- If an ETF does not trade a certain number of shares per day, is the fund illiquid? No. It's a plausible assumption from a single-stock perspective, but with ETFs, there is more to consider. The key is to understand the difference between the primary and secondary market liquidity of an ETF.

### Primary Market vs. Secondary Market

- Most noninstitutional investors transact in the secondary market—which means investors are trading the ETF shares that currently exist. Secondary liquidity is the “on screen” liquidity you see from your brokerage (e.g., volume and spreads), and it's determined primarily by the volume of ETF shares traded.
- However, one of the key features of ETFs is that the supply of shares is flexible—shares can be “created” or “redeemed” to offset changes in demand. Primary liquidity is concerned with how efficient it is to create or redeem shares. Liquidity in one market is not indicative of liquidity in the other market.
- The determinants of primary market liquidity are different than the determinants of secondary market liquidity. In the secondary market, liquidity is primarily a function of the value of the ETF shares traded and frequency and volume of the trading of those shares throughout the trading day. When placing a large trade—on the scale of tens of thousands of shares—investors are sometimes able to circumvent an illiquid secondary market by using an “authorized participant” (AP) to reach through to the primary market to “create” new ETF shares at NAV price.



# The Quadratic Deflation ETF

## Key Fund Information

Ticker	BNDD
Fund Name	Quadratic Deflation ETF
Primary Exchange	NYSE
Total Annual Fund Operating Expense	1.04%
Total Annual Fund Operating Expenses After Fee Waiver*	0.99%
Inception Date	TBD
Distribution Frequency	Monthly

\*Adviser has contractually agreed to waive fees until August 1, 2022.

## Important Notes

**Carefully consider the Funds' investment objectives, risk factors, charges and expenses before investing. This and additional information can be found in the Funds' full and summary prospectus, which may be obtained by visiting [www.kfafunds.com](http://www.kfafunds.com). Read the prospectus carefully before investing.**

Investing involves risk, including possible loss of principal. There can be no assurance that a Fund will achieve its stated objectives. ETF shares are not redeemable with the issuing fund other than in large Creation Unit aggregations. Shares of any ETF are bought and sold at market price (not NAV) and are not individually redeemed from the Fund. The returns shown do not represent the returns you would receive if you traded shares at other times. Brokerage commissions will reduce returns.

Market price returns are based on the official closing price of an ETF share or, if the official closing price isn't available, the midpoint between the national best bid and national best offer ("NBBO") as of the time the ETF calculates current NAV per share.

There is no guarantee by the Fund will declare distributions in the future or that, if declared, such distributions will remain at current levels or increase over time. The Fund is non-diversified. The Funds may invest in derivatives, which are often more volatile than other investments and may magnify the Funds' gains or losses.

There are risks involved with investing in options including total loss of principal. Options investing is not suitable for all investors. This fund utilizes sophisticated options strategies which may not be suitable for all investors. For a more comprehensive discussion of the risks involved in options investing, please review Characterizations and Risks of Standardized Options available at <http://www.theocc.com/about/publications/character-risks.jsp> or contact the Options Clearing Corporation directly at 1 N. Wacker Dr., Suite 500, Chicago, IL 60606. (1-888-678- 4667)

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