

NIKKO AM ARK DISRUPTIVE INNOVATION STRATEGY

Innovation is Key to Growth

The Nikko AM ARK Disruptive Innovation Strategy seeks to capture long-term capital growth by taking advantage of changing trends caused by technology-enabled innovations that cut across economic sectors, industries and geographic regions.

ARK Investment Management LLC (ARK), a strategic partner of the Nikko AM Group, is the investment advisor for the strategy. Based in New York, ARK is an investment manager focused solely on disruptive innovation that should change the way the world works.

ARK's Investment Philosophy

ARK believes that innovation is key to growth. Disruptive innovation is the introduction of a technology-enabled product or service that changes an industry landscape by offering simplicity and accessibility, while driving down costs. Despite its potential, the magnitude of disruptive innovation and the investment opportunities it creates are often unrecognised or misunderstood by traditional investors. ARK believes it can outperform broad-based benchmarks over the course of a full market cycle, with low correlations of relative returns to traditional growth and value strategies.

Investment Strategy

The Nikko AM ARK Disruptive Innovation Strategy aims for long-term capital growth by actively managing a concentrated portfolio of public equity securities of companies that are relevant to the theme of disruptive innovation. The portfolio represents ARK's highest-conviction investment ideas in the areas of Genomic Revolution, Industrial Innovation, Next Generation Internet and Fintech. The strategy invests in the leaders, enablers, and beneficiaries of disruptive technologies.

The strategy is benchmark agnostic. It will invest in companies across multiple sectors and geographies. Portfolios will include issuers across all capitalisations with low overlap with traditional broad market indices.

The strategy is driven by ARK's unique research process, which incorporates an open research architecture ("Open Research Ecosystem") designed to gain a deeper understanding of quickly changing themes.

Strategy Characteristics

Actively managed, high conviction portfolio

Investing across multiple sectors, geographies & capitalisations

Benchmark agnostic; Low overlap with broad market indices

Unique research process, driven by ARK's Open Research Ecosystem

ARK's Investment Team

The Nikko AM ARK Disruptive Innovation Strategy is advised by ARK's Chief Investment Officer and Portfolio Manager Catherine Wood, who has over 40 years of industry experience.

Catherine is the CEO and founder of ARK, which was registered with the SEC as an investment adviser in January 2014. Prior to ARK, Catherine spent twelve years at AllianceBernstein as CIO of Global Thematic Strategies, a role in which she managed over USD 5 billion. Catherine joined Alliance from Tupelo Capital Management, a hedge fund she co-founded which managed USD 800 million in global thematic strategies. Prior to this, she worked for 18 years with Jennison Associates as chief economist, equity research analyst, portfolio manager and director. Catherine started her career at The Capital Group as an assistant economist. Catherine received her Bachelor of Science, summa cum laude, in Finance and Economics from the University of Southern California in 1981.

ARK's Director of Research Brett Winton, who has worked alongside Catherine for over 10 years, is focused on research and managing ARK's analyst team and research process. ARK's analysts are organised by investment theme and supporting elements, rather than sector or geography. Analysts collaborate within particular themes, as well as across themes.



James Wang

Mobile Devices, Social Media, Machine Learning, Virtual Reality, Semiconductors



Tasha Keeney

Autonomous Vehicles, 3D Printing, Mobility-as-a-Service, Infrastructure Development

ARK's Analysts Organized by Cross-Sector Disruptive Innovation Themes



Catherine D. Wood
Founder, CEO/CIO

Named one of the "Bloomberg 50", 2018
Awarded Women In Finance, Outstanding Contribution, 2016



Brett Winton
Director of Research

Teamed with Catherine Wood for over 10 years in researching innovation



Sam Korus

Robotics, Energy Storage, Electric Vehicles, Alternative Energy, Space Exploration



Manisha Samy

Beyond DNA, Targeted Therapeutics, Agricultural Biology, Instrumentation, Stem Cells



Simon Barnett

Molecular Diagnostics, Next Generation DNA Sequencing, Nano-Biotechnology



Yassine Elmandjra

Blockchain, Cryptocurrencies, Cryptoassets

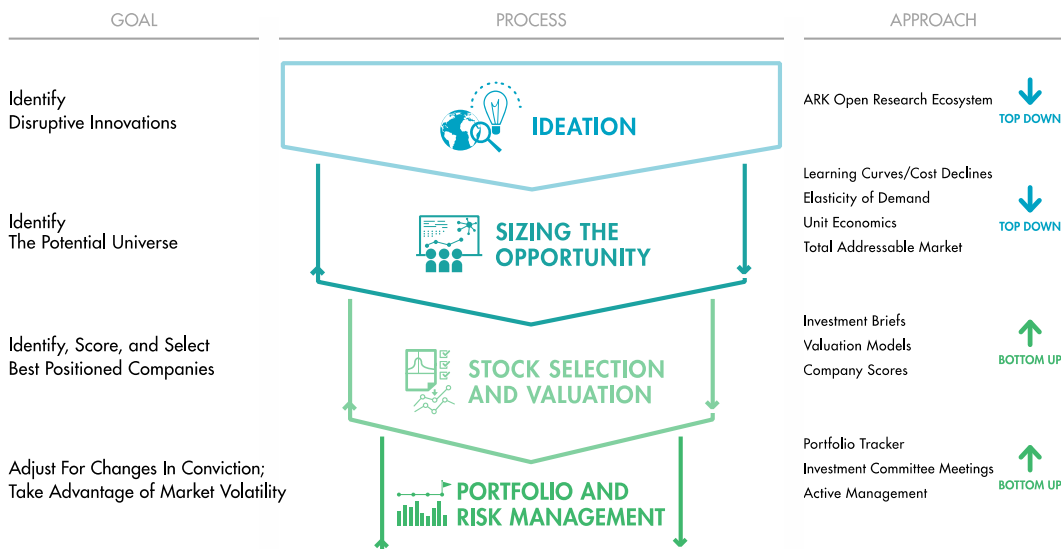


Max Friedrich

Fintech, Mobile Payments, Digital Wallets, Venture Capital

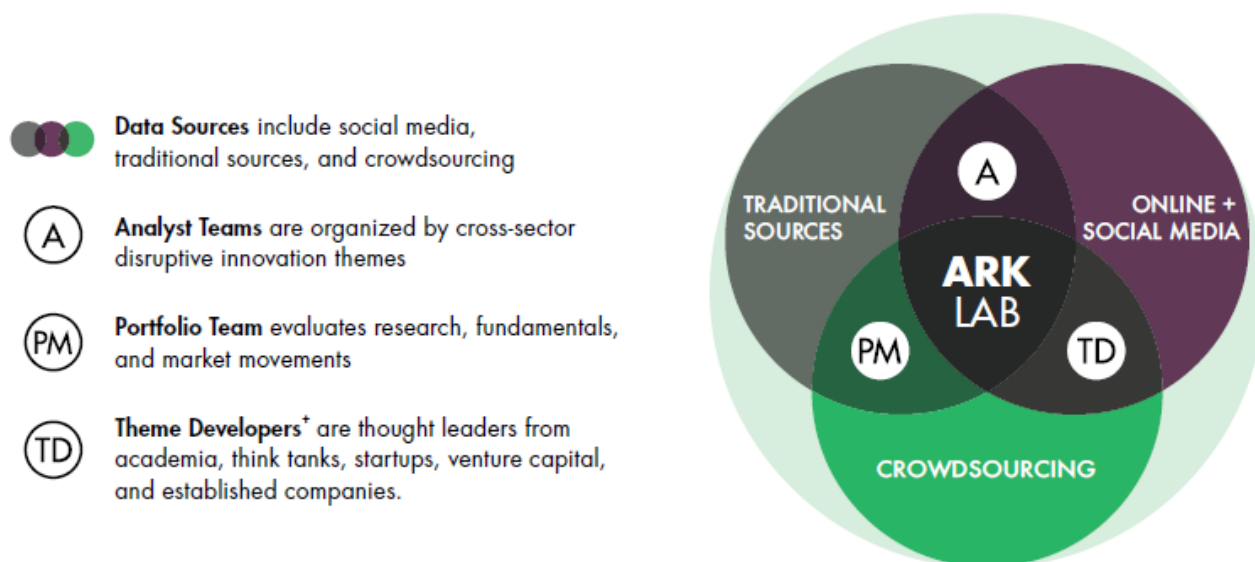
ARK's Investment Process

The investment process is driven by ARK's Open Research Ecosystem, which seeks to capitalise on rapid change through an open approach and the convergence of insights. ARK believes that a combination of top-down and bottom-up research allows the team to size the investment opportunity of disruptive innovation, and then detect and rank companies best positioned to benefit.



ARK's Open Research Ecosystem

ARK employs its proprietary Open Research Ecosystem to gather information, both helping to define and refine its internal research process. Inputs include theme developers who are thought leaders in their fields, social media interactions, and crowd-sourced insights as people respond to ARK's public research. By applying technological concepts and external data to traditional approaches, ARK seeks to create a more transparent, creative, and interdisciplinary investment process.



⁺ ARK Theme Developers are not employees of ARK and do not receive compensation from ARK.

Top-down research to define the investment universe

ARK's investment process initially examines from the top-down how the world is changing and where it is headed. To understand quickly changing innovation themes, ARK gathers information from the Open Research Ecosystem. Using this information in an iterative fashion, ARK's investment team works to "size" and "re-size" the opportunities, and then anticipates and quantifies multi-year value-chain transformations and market opportunities. Through this process, specific companies are singled out as best positioned to benefit from the identified investment premise, which leads to the bottom-up process.

Bottom-up analysis to refine the investment opportunity

ARK's bottom-up analysis begins with the aforementioned, distilled group of potential investments. ARK scores potential investments based on the following six key metrics:

1. Company, People and Culture
2. Execution of Objectives
3. Moat or Barriers to Entry
4. Product and Service Leadership
5. Thesis Risk
6. Valuation: 5-Year Return (requires a 15% compound annual return hurdle rate)

The valuation metric requires building out a revenue model for each company in the portfolio over the next five years. These models incorporate the company's unit volume growth, cost declines, market adoption and penetration, share count growth, and future multiples, arriving ultimately at a per share price five years from the current date that should be roughly double the current price.

Finally, as CIO and portfolio manager, Catherine Wood has final accountability for the selection of investments and approval for all investment decisions.

Portfolio and Risk Management

Thematic portfolios built around disruptive innovation face certain risks. For instance, a primary risk to ARK's investment strategy is that a disruptive technology or disruptor company could become itself disrupted or not fulfill its promise.

To mitigate this risk, ARK continuously monitors the investment thesis of each of its portfolio companies using the Portfolio Tracker. The Portfolio Tracker amalgamates bottom-up scores, both qualitative and quantitative, for all stocks in the portfolio. Within each portfolio ARK tracks a stock's "Thematic Relevance" to evaluate its position. Changes in analysts' scores trigger discussion with the portfolio manager during regular stock meetings. Examples of risks that may trigger a downgrade by analysts include the following:

Company, People, and Culture <ul style="list-style-type: none">• Departure of key personnel• Inefficient talent acquisition• Threat of legal action• Poor governance	Execution <ul style="list-style-type: none">• Insufficient/ declining R&D spending• Incorrect target operating model• Poor sales and marketing execution
Moat/ Barriers to Entry <ul style="list-style-type: none">• Rise of new disruptive technologies• Increasing competitive pressure• Trade barriers and subsidies	Product and Service Leadership <ul style="list-style-type: none">• Loss of market share• Lack of vision for future innovation• Monitoring incorrect KPIs
Valuation <ul style="list-style-type: none">• The average rate of return for a stock drops below 15% average over five years	Thesis Risk <ul style="list-style-type: none">• Regulatory risk• Geo political risk• Technology adoption risk• Environment and social risk

Analysts are responsible for monitoring the portfolio companies they cover on an ongoing basis. However, the primary responsibility for managing the portfolio risk lies with the portfolio manager.

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