

# LIFE, INVESTED

# David Booth in the Financial Times: Why the Wisdom of the Market Crowd Beats Al

David Booth
Chairman and Founder

May 22, 2023

Can artificial intelligence help pick stocks? More specifically, can investors use AI to determine the fair price of a stock or a bond? I bet a lot of people right now would say yes, given recent advances that allow for the processing of ever greater amounts of information.

I think my AI is better than all the other ones out there. My AI is the market.

For example, pick a stock. Check the price. Why is it that exact price? Because an equal number of buyers and sellers think they are getting a good deal when they sell or buy it at exactly that time. They make those judgments using every piece of information available to them, both public and private. The market is the world's largest information processing machine, which creates a price for every publicly traded stock and bond.

These prices are set in an environment where no one knows what's going to happen. So in that sense it is a giant model that is humanity's best and constantly evolving guess of how each company stock or bond will perform.

Despite all the promise of AI, I prefer to accept market prices rather than prices from algorithms. Large language models, the types of AI that power tools such as ChatGPT, are intended to understand and generate text that seems as if it was made by humans, not predict future outcomes.

They can generate potential scenarios based on learnt patterns, but they struggle to account for unknown factors or real-world changes that come outside their training data. In that way, they are truly "artificial," while markets are composed of real, human intelligence and the millions of judgments market participants make.

# Despite all the promise of AI, I prefer to accept market prices rather than prices from algorithms.

Sure, Al and algorithmic trading can help the execution of trades. But there's no reason to think that Al should fundamentally influence the way people think about stock prices anytime soon.

The market is fantastically complex. So much so that no one knows exactly how much a particular piece of information impacts a price, because there are so many other simultaneous inputs. But the market ensures that a price is the most accurate current representation of the value of a stock or bond. It's free and available to all. How great is that?

This isn't just my opinion. There's plenty of evidence to support it. In fact, it's a 50-year-old theory that only gets more proven with each passing year. Google "efficient market hypothesis." Better yet, ask ChatGPT to explain it.

Still don't believe me? Then let me ask another question: Do you think you can hire a manager to implement the strategy of using AI to pick stocks that consistently beat the market? After fees, probably not. If they had some cool AI that actually did predict stock prices better than the market, why would they share the information with you?

What's the takeaway? You can have a good experience without worrying about all that stuff. Based on nearly a century's worth of data, the stock market has returned about 10 per cent a year, which is 7 per cent above inflation. That was true before and after computers, before and after the internet, and even before and after the second world war. It makes sense to me that it will continue to be the case after Al. Because our Al is "aggregate intelligence," which includes artificial intelligence and betters it.

To be clear, I celebrate the innovation that this moment may represent. As I have witnessed over and over during the past 50 years of my career, many players will try to take advantage of the newest advance in technology to improve their company and also to build new ones. By buying the market, you can have a piece of all the publicly traded companies.

And if I still haven't convinced you, I asked ChatGPT, "Is it safer to trust the market price mechanism than rely on an AI model to find mispricing in stocks and bonds?"

Here's what I got back the day I asked: "It is generally safer to trust the market price mechanism than to rely on an AI model to find mispricings in stocks and bonds. The market price mechanism is based on the collective actions of all market participants and incorporates all available information into asset prices. As a result, it is difficult for any single investor or AI model to consistently outperform the market by identifying mispricings."

So if you don't trust me, trust the AI that is telling you not to trust the AI over the market.

This piece originally appeared in the Financial Times.

1. In US dollars. S&P 500 Index annual returns 1926–2021. S&P data © 2023 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio.

The information in this material is intended for the recipient's background information and use only. It is provided in good faith and without any warranty or representation as to accuracy or completeness. Information and opinions presented in this material have been obtained or derived from sources believed by Dimensional to be reliable, and Dimensional has reasonable grounds to believe that all factual information herein is true as at the date of this material. It does not constitute investment advice, a recommendation, or an offer of any services or products for sale and is not intended to provide a sufficient basis on which to make an investment decision. Before acting on any information in this document, you should consider whether it is appropriate for your particular circumstances and, if appropriate, seek professional advice. It is the responsibility of any persons wishing to make a purchase to inform themselves of and observe all applicable laws and regulations. Unauthorized reproduction or transmission of this material is strictly prohibited. Dimensional accepts no responsibility for loss arising from the use of the information contained herein.

This material is not directed at any person in any jurisdiction where the availability of this material is prohibited or would subject Dimensional or its products or services to any registration, licensing, or other such legal requirements within the jurisdiction.

"Dimensional" refers to the Dimensional separate but affiliated entities generally, rather than to one particular entity. These entities are Dimensional Fund Advisors LP, Dimensional Fund Advisors Ltd., Dimensional Ireland Limited, DFA Australia Limited, Dimensional Fund Advisors Canada ULC, Dimensional Fund Advisors Pte. Ltd., Dimensional Japan Ltd. and Dimensional Hong Kong Limited. Dimensional Hong Kong Limited is licensed by the Securities and Futures Commission to conduct Type 1 (dealing in securities) regulated activities only and does not provide asset management services.

# **RISKS**

Investments involve risks. The investment return and principal value of an investment may fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original value. Past performance is not a guarantee of future results. There is no guarantee strategies will be successful.

#### **UNITED STATES**

Dimensional Fund Advisors LP is an investment advisor registered with the Securities and Exchange Commission.

Investment products: • Not FDIC Insured • Not Bank Guaranteed • May Lose Value Dimensional Fund Advisors does not have any bank affiliates.

# **CANADA**

These materials have been prepared by Dimensional Fund Advisors Canada ULC. The other Dimensional entities referenced herein are not registered resident investment fund managers or portfolio managers in Canada.

This material is not intended for Quebec residents.

Commissions, trailing commissions, management fees, and expenses all may be associated with mutual fund investments. Please read the

prospectus before investing. Unless otherwise noted, any indicated total rates of return reflect the historical annual compounded total returns, including changes in share or unit value and reinvestment of all dividends or other distributions, and do not take into account sales, redemption, distribution, or optional charges or income taxes payable by any security holder that would have reduced returns. Mutual funds are not guaranteed, their values change frequently, and past performance may not be repeated.

# **AUSTRALIA**

This material is issued by DFA Australia Limited (AFS License No. 238093, ABN 46 065 937 671). This material is provided for information only. No account has been taken of the objectives, financial situation or needs of any particular person. Accordingly, to the extent this material constitutes general financial product advice, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to the investor's objectives, financial situation and needs. Investors should also consider the Product Disclosure Statement (PDS) and the target market determination (TMD) that has been made for each financial product either issued or distributed by DFA Australia Limited prior to acquiring or continuing to hold any investment. Go to dimensional.com/funds to access a copy of the PDS or the relevant TMD. Any opinions expressed in this material reflect our judgement at the date of publication and are subject to change.

#### **NEW ZEALAND**

This material is issued by DFA Australia Limited (incorporated in Australia, AFS License No. 238093, ABN 46 065 937 671). This material is provided for information only. This material does not give any recommendation or opinion to acquire any financial product or any financial advice product, and is not financial advice to you or any other person. No account has been taken of the objectives, financial situation or needs of any particular person. Accordingly, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to the investor's objectives, financial situation and needs. Investors should also consider the Product Disclosure Statement (PDS) and for the Dimensional Wholesale Trusts the target market determination (TMD) that has been made for each financial product or financial advice product either issued or distributed by DFA Australia Limited prior to acquiring or continuing to hold any investment. Go to dimensional.com/funds to access a copy of the PDS or the relevant TMD. Any opinions expressed in this material reflect our judgement at the date of publication and are subject to change.

#### WHERE ISSUED BY DIMENSIONAL IRELAND LIMITED

Issued by Dimensional Ireland Limited (Dimensional Ireland), with registered office 3 Dublin Landings, North Wall Quay, Dublin 1, Ireland. Dimensional Ireland is regulated by the Central Bank of Ireland (Registration No. C185067).

#### WHERE ISSUED BY DIMENSIONAL FUND ADVISORS LTD.

Issued by Dimensional Fund Advisors Ltd. (Dimensional UK), 20 Triton Street, Regent's Place, London, NW1 3BF. Dimensional UK is authorised and regulated by the Financial Conduct Authority (FCA) - Firm Reference No. 150100.

Dimensional UK and Dimensional Ireland do not give financial advice. You are responsible for deciding whether an investment is suitable for your personal circumstances, and we recommend that a financial adviser helps you with that decision.

Dimensional UK and Dimensional Ireland issue information and materials in English and may also issue information and materials in certain other languages. The recipient's continued acceptance of information and materials from Dimensional UK and Dimensional Ireland will constitute the recipient's consent to be provided with such information and materials, where relevant, in more than one language.

NOTICE TO INVESTORS IN SWITZERLAND: This is advertising material.

# JAPAN

For Institutional Investors and Registered Financial Instruments Intermediary Service Providers.

This material is deemed to be issued by Dimensional Japan Ltd., which is regulated by the Financial Services Agency of Japan and is

registered as a Financial Instruments Firm conducting Investment Management Business and Investment Advisory and Agency Business.

Dimensional Japan Ltd. Director of Kanto Local Finance Bureau (FIBO) No. 2683

Membership: Japan Investment Advisers Association

#### SINGAPORE

This material is deemed to be issued by Dimensional Fund Advisors Pte. Ltd., which is regulated by the Monetary Authority of Singapore and holds a capital markets services license for fund management.

This advertisement has not been reviewed by the Monetary Authority of Singapore and should not be shown to prospective retail investors. FOR PROFESSIONAL INVESTORS IN HONG KONG

This material is deemed to be issued by Dimensional Hong Kong Limited (CE No. BJE760) ("Dimensional Hong Kong"), which is licensed by the Securities and Futures Commission to conduct Type 1 (dealing in securities) regulated activities only and does not provide asset management services.

This material should only be provided to "professional investors" (as defined in the Securities and Futures Ordinance [Chapter 571 of the Laws of Hong Kong] and its subsidiary legislation) and is not for use with the public. This material is not intended to constitute and does not constitute marketing of the services of Dimensional Hong Kong or its affiliates to the public of Hong Kong. When provided to prospective investors, this material forms part of, and must be provided together with, applicable fund offering materials. This material must not be provided to prospective investors on a standalone basis. Before acting on any information in this material, you should consider whether it is suitable for your particular circumstances and, if appropriate, seek professional advice.

Neither Dimensional Hong Kong nor its affiliates shall be responsible or held responsible for any content prepared by financial advisors. Financial advisors in Hong Kong shall not actively market the services of Dimensional Hong Kong or its affiliates to the Hong Kong public.

dimensional.com