



KREITLER FINANCIAL INSIGHTS

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Artificial Intelligence – Playing with Fire?

BY CHARLES KREITLER

As early as 2018, Google’s CEO Sunda Pinchai noted “AI is one of the most important things humanity is working on. It is more profound than, I dunno, electricity or fire.” ([CNBC Feb 1 2018 Google CEO Sundar Pichai: AI is more important than fire, electricity.\(cnbc.com\)](#))

Pinchai went on to acknowledge that many technologies have good and dark sides. “We have learned to harness fire for the benefits of humanity but we had to overcome its downsides too. So my point is, AI is really important, but we have to be concerned about it.”

The ability for computers to use complex language and logic, whether you call it machine learning, artificial intelligence, or large language models, the technology is advancing quickly, and advanced computer chips (i.e. quantum computing) will accelerate this trend. Experts on the topic often acknowledge that they don’t understand how the technology works. (For one example, refer to [The Dark Secret at the Heart of AI | MIT Technology Review](#).)

We cannot know where this technology will ultimately take us, but we think it’s worth beginning a conversation on the potential impacts and how each of us can adapt to both its benefits and challenges.

General Purpose Technology

Wikipedia offers the following definition: “General-purpose technologies (GPTs) are technologies that can affect an entire economy (usually at a national or global level). GPTs have the potential to drastically alter societies through their impact on pre-existing economic and social structures.” ([General-purpose technology – Wikipedia](#))

Some early GPTs throughout history were the domestication of plants and metallurgy. Later, humankind harnessed waterpower and the assembly line was born as belts distributed that waterpower energy to machines. The steam engine freed factories from their dependency on rivers. Later electricity permitted central power generation.

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In what was a blink of an eye by historical standards, factories changed their layouts to increase productivity by making layouts determined by efficiency rather than access to a power supply. Artificial lighting allowed people to work and study extra hours. Electricity permitted electronics, leading to the computer.

Some individuals profited from these new discoveries either as the inventor or early adopter. Others did not. I imagine the shift to agrarian lifestyle was hard on the local hunter gatherer populations as farming pushed them to different lands. However, living standards and wealth for civilization as a whole improved.

Early adopters haven't always profited. A Roman story attributed variously to Petronius, Pliny the Elder, and others tells the story of the inventor of aluminum being put to death so the new discovery wouldn't devalue the emperor's gold. To my knowledge, Ben Franklin's experiments with electricity never made him rich [Although the good financial habits he preached in Poor Richard's Almanac apparently did—Franklin was the 4th wealthiest American when he died in 1790.]

(The Wealth 100/From Benjamin Franklin to Bill Gates – A Ranking of the Richest Americans, Past and Present M Klepper, R Gunther).

Implications Today

Each new technology involves some level of creative destruction. Tasks that previously needed a person to do them are replaced or made easier. An example sometimes used is elevator operators. When elevators were first installed in buildings, they lacked some of the basic safety features that we take for granted, such as not stopping between floors and leaving a perilous hole to the basement exposed for the unsuspecting to step into. Elevator operators were the solution at the time. Today we would probably laugh at the idea that

someone would sit in an elevator all day. As automation of elevators improved, these jobs were replaced with machines. From a societal standpoint, this was positive because labor could be moved to a more productive activity. However, if you were an elevator operator, this was threatening, but in practice it was probably a gradual change because elevators are installed and upgraded relatively slowly.

**"THE PACE OF CHANGE
HAS NEVER BEEN THIS
FAST, YET IT WILL NEVER
BE THIS SLOW AGAIN."**

Justin Trudeau

AI has the potential to cause much faster change. Technology has already automated many functions. Anything that can be distilled down to a simple decision tree is easy to create software to support.

The current iterations of AI are even more impressive. They can write technical or creative content. Can information be trusted when content is created without human involvement? Making this more immediate, would sharing our thoughts in a newsletter be valuable if they were really a computer's 'thoughts'? They can create images and music. Is it art? Today, learning models are using content created by people as their base. What happens when they start reacting to other machine-generated content?

Investors are looking for ways to play AI. Big technology companies are one avenue, and year to date they have risen sharply.

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Chip makers are another. (See our comments on how just a few companies are driving most of the year-to-date market gains nearby.) Just like other GPTs, there will be second- and third-order beneficiaries.

Each of us will need to adapt to this new world. The way we receive and process information will change. Professions will evolve. For example, teachers will need new techniques to know whether their students understand a concept, even if a computer helps the students with the assignment. Knowledge workers will

either compete with machines or learn to use them to complement their own skills and creativity. The purpose remains important; the way to accomplish it may change.

At Kreitler Financial, our purpose will remain unchanged. We will continue to help clients achieve their goals, expand their possibilities, and find meaning in a world that is moving faster and with greater complexity than ever before.

SUMMER TECH HIGHLIGHTS 2023

Open Source Chip Design

RISC-V is an open-source chip design standard that allows anyone to design a chip for free and is revolutionizing the chip industry. Companies such as Intel and Arm are already using it, and experts predict that it will soon be everywhere.

[technologyreview.com](https://www.technologyreview.com)

Advancing Limb Generation

Limb regeneration research has advanced, with studies showing that mechanical load and drug delivery can promote regeneration in mammals and frogs. This could lead to new treatments for humans.

[cas.org/resources](https://www.cas.org/resources)

Single-cell Metabolomics Set to Soar

Recent advances in single-cell metabolomics allow researchers to determine the metabolite population on a cell-by-cell basis, which could lead to the ability to detect even a single cancerous cell.

[cas.org/resources](https://www.cas.org/resources)

Can Meditation Help Manage Your Stress?

BY JAKE NESS

In today's fast-paced and stressful world, finding ways to reduce stress is becoming increasingly important. Stress can not only reduce your quality of life it can also develop into more serious health issues in the long term. Therefore, it is essential you do whatever you can to minimize stress in your life.

One effective method for reducing stress is meditation. This practice involves focusing your mind on a particular object, thought or activity to achieve a mentally clear and emotionally calm state. Research has shown that regular meditation practice can lead to a reduction in stress and anxiety levels, as well as

improved emotional well-being and overall health.

Negative emotions and self-awareness

Meditation can help individuals to reduce negative emotions such as anger, anxiety, and depression by promoting a sense of calm and relaxation. Furthermore, meditation can also help individuals to increase their self-awareness, which can lead to a greater understanding of their thoughts, feelings, and behaviors. This awareness can lead to more effective stress management strategies and an improved ability to cope with stressors.

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Parasympathetic nervous system

One way that meditation reduces stress is through the activation of the parasympathetic nervous system. The parasympathetic nervous system is responsible for the body's rest-and-digest response, which helps to lower heart rate, blood pressure and cortisol levels which can result in stress reduction. By activating the parasympathetic nervous system through meditation, individuals can experience a reduction in stress and an improvement in overall quality of life.

Mindfulness

Mindfulness meditation can help individuals to focus their attention on the present moment, which can mitigate the impact of stressors on the mind and body. Mindfulness meditation involves paying attention to the present moment without judgment, which can help individuals to develop a greater sense of perspective and a more positive outlook on life.

Emotional well-being

In addition to reducing stress, meditation can also improve emotional well-being. A study published in the Journal of Health Psychology found that mindfulness meditation can lead to significant reductions in symptoms of anxiety and depression. Another study published in the Journal of Psychiatric Practice found that meditation can improve symptoms of post-traumatic stress disorder (PTSD) in military veterans. Meditation can also empower individuals with a greater sense of empathy and compassion towards others, which can contribute to improved relationships and social support.

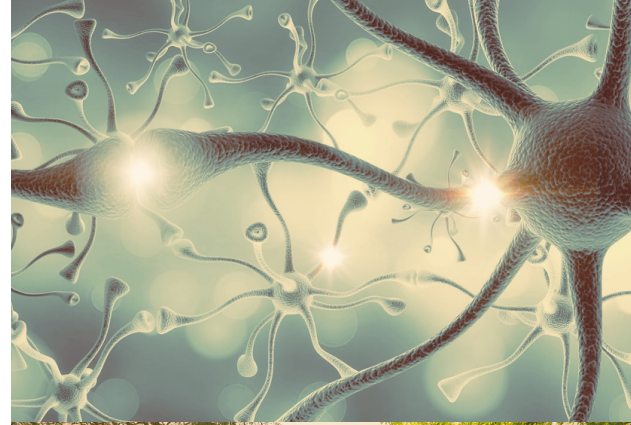
Meditation is not for everybody

It is worth noting that while meditation can be a useful tool for reducing stress, it may not be suitable for everyone. Individuals with certain medical conditions, such as epilepsy, should consult their doctor before starting a meditation practice. Additionally, some individuals may find meditation difficult or uncomfortable at first and may need to try different techniques or seek guidance from a qualified meditation instructor.

Maintain your health for retirement

There is nothing more valuable than health when it comes to quality of life. This can be particularly important during your retirement years. Therefore, meditation and other ways of taking care of yourself is important to ensure you actually do make it to retirement and allow yourself to enjoy your golden years after working hard your whole life.

On the other hand, another key component to having a rewarding retirement experience is to ensure your finances are intact. Speaking to a financial advisor can help you in developing a retirement plan that is comprehensive and adequate for your needs.



Q2 Market Update

BY **KREITLER FINANCIAL**

Happy summer! The longer days and warm temperatures provide plenty of opportunities to get outside with friends and family. We hope you're taking full advantage of these opportunities.

Markets have provided opportunities this year. As of June 30, 2023, US large companies as measured by the cap-weighted S&P 500 were up [YCHARTS] 16.9%.

Readers might be forgiven for finding this unusual. In the past few months, the news was gripped by drama. To highlight just a few topics:

- Congress raised the debt ceiling after dragging the issue into an 11th hour debate, with pundits declaring disaster was upon us with government shutdowns and a default on the US national debt.
- Inflation is either "bad news" because it is running at 4.1% (YCHARTS) or "good news" because it is significantly lower than the 8.6% measure a year prior.
- Geopolitics remains front-page news. Tension between the US and China continues to simmer. War grinds on in Ukraine, and a brief insurrection saw Russian tanks driving toward Moscow.

How can we deal with the seeming contradiction that the news is full of 'bad' news, and yet markets have delivered positive returns for investors?

First, we must expect the unexpected. And although we must embrace the fact that we cannot know the future, we must still make decisions as to how to save and invest for the important goals of our



lives. It is also helpful to remember that news outlets are paid to keep us watching and reading, so everything becomes dramatized regardless of its actual importance. Markets deliver their long-term returns with unpredictable timing. To realize these long-term returns, investors need to exercise patience and maintain a strategy that manages uncertainty and unpredictability. Investors were rewarded this quarter for ignoring the short-term news and sticking to their long-term strategies.

There are reasons to expect volatility. As noted nearby, most of the return in the US market can be attributed to a relatively small number of mega-cap companies. Will the rest of the market 'melt up' to join them, or will they return to earth? Inflation remains sticky and risks becoming entrenched in people and companies expectations.

Interest rates remain higher than recent years, straining personal finances and raising the cost of investment for companies. While it seems like the media has been forecasting a recession 'just around the corner' for the past year, it is certainly a possibility.

We encourage you to talk with us about any changes in life that might affect your financial strategy. In the meantime, we wish you and your loved ones an enjoyable summer.

MARKET UPDATE

After two years of hot inflation contributing to a swift rise in interest rates, an inflation downtrend may be underway. Recent Headline CPI inflation has come down from a peak of 8.9% year over year last June to 4.1% year over year in May (YCHARTS).

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Cooling inflation is consistent with our expectations over the past year as the 'base effect' puts price spikes in categories like energy beyond the 12-month period typically used calculating inflation. Going forward, the question is how persistent continued price increases will prove to be. Since the hiking cycle began in 2022, the Fed has hiked rates by a cumulative 5.00% in an attempt to combat persistent and high inflation. At their June meeting, the Fed voted to leave the federal funds rate unchanged at a target rate of 5.00-5.25%. This is the first pause in rate increases since tightening began in early 2022, but it does not mean a shift to dovish policy. Although the Fed has paused rate increases, forward guidance of rate increases is still on the table.

Despite Fed policy uncertainty, bank failures, and geopolitical risks, equity markets have had a solid year thus far. As of June 30, 2023, the S&P 500 and MSCI EAFE (Developed Europe) returned 16.9% and 12.1%, respectively (YCHARTS).

ASSET CLASS	INDEX	YTD TOTAL RETURNS
US STOCKS	S&P 500 Total Return	16.9%
	Russell 2000	8.1%
FOREIGN STOCKS	MSCI Emerging Markets	5.1%
	MSCI EAFE	12.1%
US BONDS	Bloomberg US Aggregate	2.1%
PRIVATE REAL ESTATE	NCREIF-National**	-1.8%

*Source YCharts Returns as of June 30, 2023

**Source Envestnet Tamarac as of June 30, 2023

Rising interest rates did create one of the worst years for bonds in 2022, but higher rates may provide an opportunity for higher forward returns in bonds. As of June 30, the 10-year U.S. treasury bond is yielding 3.81% and the Bloomberg U.S. Aggregate Bond Index returned 2.1% year-to-date (YCHARTS).

Last year, the S&P 500 and U.S. aggregate bond index had negative returns, but private real estate as measured by the NCREIF National Index had a positive performance of 5.5% (Envestnet Tamarac). This year, higher interest rates are now making their way through property valuations and cost of real estate financing. As a result, real estate returns have witnessed some negative returns so far this year. For those portfolios in which we are able to own it, the positive 2022 returns in private real estate and the lagging return this year-to-date are prime example of the benefits of a disciplined approach to portfolio diversification.

Investors cannot invest directly in an index. Indices may change over time. Indices are not an investment and have no performance history. Past index performance is no indication of future results for the index or any investments. Different types of investments involve varying degrees of risk, and there can be no assurance that the future performance of any specific investment, investment strategy, or product (including the investments and/or investment strategies recommended or undertaken by Kreitler Financial, LLC ("Kreitler Financial"), or any non-investment related content, made reference to directly or indirectly in this newsletter will be profitable, equal any corresponding indicated historical performance level(s), be suitable for your portfolio or individual situation, or prove successful. Due to various factors, including changing market conditions and/or applicable laws, the content may no longer be reflective of current opinions or positions. Moreover, you should not assume that any discussion or information contained in this newsletter serves as the receipt of, or as a substitute for, personalized investment advice from Kreitler Financial. To the extent that a reader has any questions regarding the applicability of any specific issue discussed above to his/her individual situation, he/she is encouraged to consult with the professional advisor of his/her choosing. Kreitler Financial is neither a law firm, nor a certified public accounting firm, and no portion of the newsletter content should be construed as legal or accounting advice. A copy of Kreitler Financial's current written disclosure Brochure discussing our advisory services and fees is available upon request. Please Note: If you are a Kreitler Financial client, please remember to contact Kreitler Financial, in writing, if there are any changes in your personal/financial situation or investment objectives for the purpose of reviewing/evaluating/reviving our previous recommendations and/or services. Kreitler Financial shall continue to rely on the accuracy of information that you have provided.

At Kreitler Financial, we help change people's lives by helping them dream a future they can't yet imagine, then outline the path to make it a reality.

POSSIBILISTS & PATHFINDERS

There is no assurance that any investment strategy will be successful or that your objectives will be met. Investing involves risk and investors may incur a profit or a loss. Asset allocation and diversification do not ensure a profit or protect against a loss. Past performance is not indicative of future results. Every investor's situation is unique and you should consider your investment goals, risk tolerance and time horizon before making any investment decision.

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