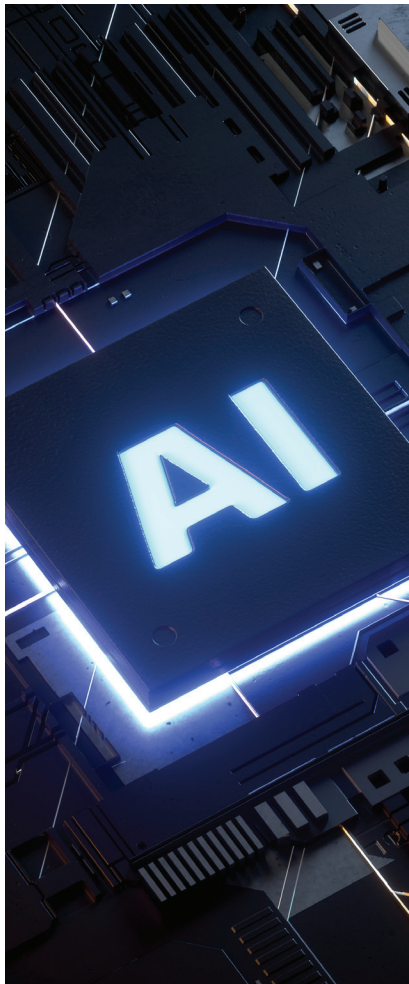


# Eye on AI: Assessing the Investment Potential of Artificial Intelligence

In 2023, investor enthusiasm around generative AI helped erase the prior year's bubble of market pessimism and drive impressive price gains across AI-related stocks. The investment team at Zevenbergen Capital Investments, which specializes in high-growth equity portfolios, discusses where they see compelling opportunities to capitalize on this transformative technology, both currently and longer term, as well as key considerations and potential risks.



## How we view AI

2023 was a breakout year for generative AI, with innovative software like ChatGPT mainstreaming the technology in extremely user-friendly formats. AI as a concept, however, has been around since the 1950s, and machine learning has been applied across back-end systems for decades. What is different about AI today is how everyday workers and individuals are getting to interact with machine learning models in intuitive, fresh ways.

There is little question that this significant advancement will likely revolutionize the business landscape as well as our daily lives. Nevertheless, when assessing its investment potential, it is important to remember that AI is fundamentally a combination of software code, statistics, and pieces of information that improves in quality with the volume of data ingested. It is a tool—a highly sophisticated tool with the power to unlock a wave of technological innovations—but a tool all the same. And humans have a long history of inventing and skillfully using new tools to become more efficient and do more with less effort, less cost, and less risk.

## Today's beneficiaries

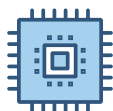
While the current iteration of generative AI is truly groundbreaking, we are in the very early innings of understanding and unlocking its business potential. Even so, it is already beginning to drive increased sales and new revenue and earnings gains, particularly for companies offering (or positioning to offer) innovative products and services that can help other businesses tap into the potential benefits of the technology.

As we see it, the current opportunity set falls into three types of companies:

1

### Building Block Businesses

Hardware and Infrastructure



2

### Data Vaults

Data Storage



3

### Distributors

Data Transfer



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- **Building block businesses** provide the hardware and infrastructure necessary for building and deploying AI models. One such “building block” is semiconductor company NVIDIA, whose graphic accelerator chips have proved valuable in AI software development. Another critical (but often overlooked) infrastructure component: energy. AI datacenters require significant amounts of power to operate. We believe energy solution providers, from generation and transmission to project consulting and waste recycling, will serve an increasingly important role in the AI revolution.
  - **Data vaults** store the valuable, unique data critical for training AI models and ensuring accuracy and robustness. For example, video streaming provider Netflix and ecommerce and web services company Amazon.com collect and synthesize troves of customer data that ultimately enhance the companies’ AI-driven products and services.
  - **Distributors** have the ability and/or installed customer bases to get AI into the hands of end users. For instance, workflow automation software company ServiceNow uses its trusted relationship with thousands of enterprise customers worldwide to sell AI-enhanced productivity tools. However, existing consumer and workplace electronic devices may not have sufficient processing, memory, and battery power to handle the most advanced generative AI technology. Further AI innovation could stimulate a significant “refresh cycle” for personal computers, laptops, and smartphones over the next three years and benefit intellectual property companies, component and system designers and manufacturers, and information technology vendors and resellers.

Strong investor appetite for these kinds of stocks is evident by surging market valuations. Yet the potential for further gains still exists, and we expect to continue to find interesting investment opportunities within these segments as more and more companies explore how AI can be applied to their businesses.

## Tomorrow’s beneficiaries

Looking ahead, we expect AI’s investment potential to expand and grow rapidly, as more and more businesses begin applying the technology to increase productivity and/or capture greater cost efficiencies. A credible argument can be made that AI will ultimately affect any job requiring a keyboard (as well as many that do not), outside of primarily manual labor-intensive industries. Some researchers estimate there are more than 100 million knowledge workers in the U.S. and over a billion worldwide. That represents a tremendous opportunity for innovative companies to disrupt and advance how they conduct business with greater efficiency.

Out of the gate, there likely will be low-hanging fruit with immediate AI applications, such as customer service interactions and creative content design. Almost certainly there will be longer-term evolutions as companies learn to better utilize the technology and the technology itself advances. We also anticipate that new markets and investment opportunities will emerge as the technology becomes more broadly accessed and applied, as has been the case with past major innovations. The longer-term dollar potential of AI is truly unbounded.

We do not view AI as a winner-take-all market. As with any breakthrough technology, companies on the cutting edge today may not be tomorrow’s leaders. Investors so far have favored companies with scale and domain expertise—no surprise, as strength often begets strength—but the market is evolving rapidly. Future growth should also benefit from a network effect, which has the potential to further accelerate development and adoption. More users translates into more data and compels more development, which in turn compels more data and more development, and on and on. This type of remarkable change and growth potential can create innovative opportunities for forward-thinking companies and investors.

At its core, AI is software code, statistics, and pieces of data. It is a tool created by and managed by people. When applied effectively, it should alleviate menial, manual, and laborious tasks so people can do what they do best—think strategically, critically, and creatively and build rapport with other people. However, the technology requires human input and direction, and it is only as effective as the people behind it.

While the most immediate benefits of AI are enhanced productivity and cost containment, what really excites us as investors are companies that are on the cutting edge of using AI to grow their businesses. These are the kinds of companies that we expect will capture the greatest potential from the technology in the years to come.

## Key considerations for investors

We see three main takeaways when scoping out the investment potential of AI:

1	2	3
<p><b>The opportunity is real.</b></p> <p>AI has the potential for huge disruptive implications on a major scale, similar to the introduction of groundbreaking advancements such as the internet and smartphones. Given the considerable market hype around the technology, investors need to be able to separate hyperbole from areas that are poised or already starting to generate revenue and/or cost control gains.</p>	<p><b>Businesses are just scratching the surface of this new frontier.</b></p> <p>Companies providing the foundation for AI development and application are the current winners, but the lion's share of opportunities have likely yet to be conceived. We have seen this scenario play out time and again. Think of the semiconductor industry, initially built on military and government applications and then, because of forward-thinkers who recognized the consumer potential, experienced explosive growth and the establishment of Silicon Valley.</p>	<p><b>Significant unknowns exist and need to be navigated as utilization and adoption grow.</b></p> <p>For example, one concern from companies slow to implement AI large language models is they do not have a strong grasp of the legal liability risks. There are also ethical considerations around transparency, privacy, and potential unanticipated biases in sourced data. Another concern is the potential use of AI for nefarious purposes. Also, regulation has yet to catch up to the speed of innovation. These are all important issues that need to be addressed, but in our view, the positive implications of AI far outweigh any concerns.</p>

## About Zevenbergen Capital Investments

The investment team at Zevenbergen Capital Investments (ZCI) has worked together for over a decade, applying rigorous fundamental research to build high-growth equity portfolios. By maintaining an independent, fundamental research focus, the team is able to identify and capitalize on potential investment opportunities that may enhance performance results. ZCI believes that concentrated positions in well-researched companies, combined with active management decisions, will outperform broadly diversified benchmarks given an appropriate time horizon.



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Investing in innovation is not without risk, and there is no guarantee that investments in research and development will result in a company gaining market share or achieving enhanced revenue. Companies developing technologies to displace older technologies or create new markets may not in fact do so, and there may be sector-specific risks as well.

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