



Terra Alpha Newsletter

What does nature have to do with investing?

Terra Alpha was founded on the premise that the consideration of how a company's operations, products and services, and supply chains use and impact natural resources systems (e.g., air, freshwater, land and forests, oceans and essential raw materials) is, and will increasingly be, a material insight into future earnings and shareholder returns. Why? The basic economic theory of supply and demand states that if demand outstrips supply, then underlying prices will rise.

It is well understood that our planet's available supply of clean air and freshwater, healthy soils, forests and oceans, and key raw materials are all declining while our growing global population along with the economic "take" on these systems is driving increased demand. Further, the impacts of the rising concentration of greenhouse gasses (pollution) in our planet's atmosphere and pollution levels in our water systems also impact businesses in numerous ways (e.g., worker health, safety and productivity, customer purchases decision making, yields in agricultural inputs, and higher costs to source clean water).

Our work to understand any company's risks and opportunities in relation to their use and impact of natural resources is embodied in our Environmental Productivity (EP) framework which has been a core part of our investment process since our founding in 2015.

In 2017, we published a white paper on EP which included the following definition:

"Environmental Productivity" - Defined

Terra Alpha Investments, LLC developed our (sic) Environmental Productivity evaluation metric based on decades of investment experience and extensive understanding of both environmental systems and the growing availability of environmental data. This research began to illuminate that many leading companies had begun to work hard to shift their operations to be more aligned with the realities of natural systems. These companies recognized that their own operations and their supply chains were facing resource challenges, and that their employees and their customers were

increasingly mindful of the impacts the company was having on natural resources. Concordantly, it is becoming evident that companies that are prepared for a resource-constrained future - amongst other factors - will be better long-term investments. Environmental Productivity is really a necessary and natural addition to an investor's toolkit for evaluating companies today and in the future. It is a way to gauge how effectively companies will be able to navigate future shifts in resource quality and availability.

The full white paper can be found [here](#).

Anyone have a spare planet?

Every year since 1970, April 22nd has been recognized as Earth Day. This first official U.S. celebration was an event held just outside Washington, D.C. at Airlie Center in Warrenton, Virginia. The primary driver of the event was to raise awareness and legislative action around air and water pollution in the aftermath of some high profile environmental disasters (e.g. the 1969 Cuyahoga River fire in Cleveland, Ohio and the oil spills off the coast of Santa Barbara, California). (Fun fact, while the 1969 fire gained national attention, a bigger and more damaging river fire occurred in 1952 with limited attention).

Despite these localized events, there is evidence that our global economy was technically operating on a sustainable basis at that time. Analysis conducted by [Earth Overshoot Day](#) and its partners in 1971, would indicate that the global economy's consumption and/or negative impact of the planet's regenerative natural resources capacity were nearly in line. By their calculation Earth Overshoot Day in 1971 was December 25th. Earth Overshoot Day is the date when humanity's demand for ecological resources and services in a given year exceeds what Earth can regenerate in that year.¹ It is computed by dividing the planet's biocapacity (the amount of ecological resources Earth is able to generate that year), by humanity's Ecological Footprint (humanity's demand for that year), and multiplying by 365, (the number of days in a year).²

In the years that followed, however, Earth Overshoot Day has crept closer and closer to Earth Day. In 1990, Earth Day became a global event with 140 countries signing up to celebrate, yet Earth Overshoot Day had moved from a late-December to a mid-October event. In 2015, when the Paris Accord was reached, Earth Overshoot Day had moved to August 7th. In 2023, the estimated Earth Overshoot Day is August 2nd.

While it is true that the data would indicate that over the past eight years the rate of negative change appears to have been held constant, there is little cause for celebration. The critical takeaway from the data is that in 2023 we are operating our economy as if we lived on 1.7 planets rather than on the one and only planet Earth. Our natural resource deficit spending means that the availability of planetary natural systems is shrinking, which triggers knock-on impacts like climate change, dwindling aquifers, warming oceans, forest cover, and lower crop yields.

¹ <https://www.overshootday.org/about-earth-overshoot-day/>

² <https://www.overshootday.org/newsroom/past-earth-overshoot-days/>

Here at Terra Alpha, we work every day to enable a sustainable planet for society. Our core operating assumption is that our current (unsustainable) global economic system must evolve toward one that operates within our planet's regenerative natural systems boundaries and better serves the needs of society. As we continue to invest with purpose, we hope to see future Earth Overshoot Days fall further from Earth Day.

Advisory Board 2023 Meeting

The Terra Alpha Investments Advisory board provides experienced and knowledgeable policy, science, and business insights on topics that are relevant to our investment and impact work. The group meets with the full Terra Alpha team at least annually. This year's meeting took place in June and covered issues including progress with our impact work, the further deepening of our company analysis, and the corporate and investor responses to politically motivated legislation which attempts to stifle the use of environmental or social insights in decision making.

The general consensus of the advisors can be summarized as:

- The three pieces of federal legislation (the 2021 Infrastructure Bill, the 2022 Chips and Science Act, and the 2022 Inflation Reduction Act) have both positively changed the narrative and built optimism within the finance and corporate worlds, which reinforces the importance of policy on change.
- It is important to highlight specific examples of success within the investment and corporate worlds to drive faster action.
- Net Zero targets by corporations are important for setting goals and signaling actions, even if they are still lacking adequate rigor.
- The release of the [Task Force for Nature related Financial Disclosures](#) (TFND) framework and the related science-based targets for nature and water will drive improved corporate reporting, and will support improved investor insights into how companies are managing these essential natural resources.

Thought Leadership

Sun Valley Forum



CIO Tim Dunn participated in a panel and moderated a workshop on Catalytic Climate Capital at the [Sun Valley Forum](#). Thank you to [The Russell Family Foundation](#) for hosting the sessions.

The Sun Valley Forum is a global climate solutions accelerator that brings together cross-sectoral leaders, innovators, and change-makers to collaborate on the most urgent issues facing people and our planet. With a track record of impact, the Forum surfaces the strategies,

technologies, business models and financing that can power the urgent transformation of our energy and food systems, restoration of nature, and revitalization of communities across the globe.

Wall Street Diversity Accelerator

Senior Research Analyst Nathaniel Schwartz led a one week bootcamp on financial statement analysis and equity research basics for the [Wall Street Diversity Accelerator](#) (WSDA) in May.

The WSDA internship program aims to provide rising sophomores and juniors from underrepresented communities with an introduction to career possibilities in financial services. Internships can be a first step toward promoting diversity and can have an immediate and lasting impact on a student's career. This program is hosted by a collaborative group of fund managers and financial advisors who are passionate about sharing what we know about our professions with select students interested in financial services.

CERES Network Lobby Days



Tim Dunn and Director of Corporate Engagement Amy Dine joined other investors and corporations at the [CERES](#) Network lobby days on Capitol Hill to support legislation funding the energy transition and conservation programs in the farm bill.

Ceres is a nonprofit organization working with influential capital market leaders to solve the world's greatest sustainability challenges. Through their powerful networks and global collaborations of investors, companies and nonprofits, they drive action and inspire equitable market-based and policy solutions throughout the economy to build a just and sustainable future.

US Sustainable Investment Forum



Tim and Amy joined the US Sustainable Investment Forum ([US SIF](#)) Capitol Hill day and members meeting. The lobby day focused on supporting the Sustainable Investment Caucus and [Freedom to Invest](#).

US SIF: The Sustainable Investment Forum is a U.S based membership association that advances sustainable investing across all asset classes. Their mission is to rapidly shift investment practices toward sustainability, focusing on long-term investment and the generation of positive social and environmental impacts.

Terra Alpha Voices | Kathy Baughman McLeod



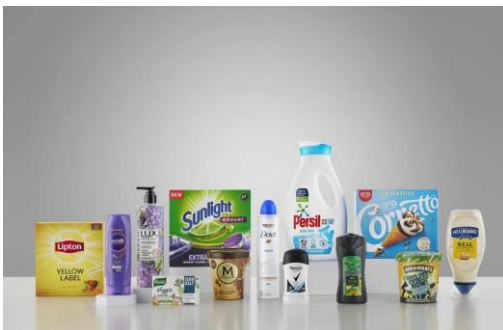
Terra Alpha Voices highlights thought leaders who inform our investment process, our impact work, and our understanding of current global affairs. This series, created in partnership with author and photographer [KK Ottesen](#), seeks to shed light on the subjects' diverse perspectives rather than their illustrious careers.

In our latest installment, KK sat down with Advisory Board Member Kathy Baughman McLeod to discuss her climate journey, understanding the implications of rising temperatures, and the climate fight for adaptation.

"I mean, the best things that humans do is that we adapt. And we have shown that over and over and over. And so this agenda, while I expect the mitigation army to continue to fight with everything that they have, we will equally fight on the adaptation side. And I feel positive and optimistic because people don't have to die from heat. We do have the science, the evidence base, the policy that we need, the money's there, the track record of how you can protect people." - Kathy Baughman McLeod

[Read the full Terra Alpha Voices here.](#)

EP Insight | Unilever's Cloud Migration



In our latest EP Insight, Terra Alpha highlights Unilever's company-wide cloud migration project.

Cloud migration is the process of moving a company's digital assets, services, databases, IT resources, and applications either partially or completely into the cloud. Unilever aims to make major upgrades to productivity, efficiency, and sustainability, and believes that the decision to go cloud-only can result in significant

upgrades to a company's productivity while lowering their environmental impacts.

[Read the full EP Insight here.](#)

Energy Impact Podcast with Tim Dunn



On June 14, 2023, the [Energy Impact Podcast](#) interviewed Tim on his perspectives on climate and the transition to a sustainable economy. In the episode, Tim discusses public equities, nonprofit environmental organizations, the creation of Terra Alpha, consumer behavior, and more.

[Listen to the full podcast episode here.](#)

Events & Engagements

- Amy attended and joined a panel on Shareholder Engagement at the [Confluence Philanthropy Advisors Forum](#) in NYC.
- Research analyst and Associate Director of Research Julianna Brunini presented Terra Alpha's approach to net zero investing to the [Intentional Endowment Network's](#) Net Zero Endowment Steering Committee.
- Terra Alpha hosted our annual D.C. reception which was attended by TAI team and advisors (special thanks to advisors Charlie Bolden, Frank Loy, and Kathy Baughman McLeod) and many of our current D.C. based investors, along with representatives from collaborative NGOs.

Firm Updates

Team Spotlight: Terra Alpha Summer Interns



Abdul Abiru

Abdul is an international student from Lagos, Nigeria. He is a rising senior at the University of Richmond studying Economics. At the University of Richmond, he helps students with professional development in his role as Lead Peer Advisor in Career Services. In his free time, he enjoys reading, baking, and trying new cuisines. This summer, Abdul's research is focused on assessing the long-term attractiveness of technology companies in our portfolio as well as identifying companies in the agriculture industry that align with Terra Alpha's investment strategy.



Sydney Olorode

Sydney is from the Lower East Side, Manhattan, New York. He is a rising Senior at Babson College concentrating in Finance and Economics. Sydney enjoys spending quality time with his extended family in Kyoto, London, and Ibadan, where he appreciates local cuisine and museums. This summer, Sydney's research is focused on a risk analysis of the healthcare sector's regulatory environment, specifically focusing on the recall risk of medical devices. He will also identify and present research on a company within the field.

Team Updates

- Business Development Analyst Abdul Gabriel left the firm at the end of June to join the African Diaspora Network. We appreciate his time with us and look forward to further success in his new role.



We are happy to note that our Manager of Business Development Emily Hiltz returned from maternity leave on July 5th. Emily and her husband Jim welcomed their first child, Matthew Thomas Hiltz, on March 28, 2023. The whole family is doing well.



Signatory of:



About Terra Alpha

Terra Alpha Investments is a public equity manager founded in 2014 by highly experienced investors who share the conviction that our rapidly evolving world requires a change in investing thinking. Our rigorous and proprietary Environmental Productivity (EP) analysis values our planet's natural resources and sits at the center of our investment process. Our unique combination of quantitative and qualitative analysis helps us identify companies with the optimal combination of enduring business models and superior EP; which we believe is the primary driver as we seek to deliver superior long-term investment returns for our investors.

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