REDWOOD GROVE CAPITAL

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Redwood Grove Capital
530 Lytton Avenue, 2nd Floor
Palo Alto, CA 94301

Redwood Grove's Net Zero Portfolio

The recent rise in Net Zero commitments from publicly traded companies has provided an avenue for Redwood Grove to understand a company's approach to climate change. Publicly traded companies account for approximately 40% of all greenhouse gas emissions.[1] The pressure to cut these emissions is likely to grow over time. While corporate emissions reduction targets are only a small part of our climate research, they do help direct the search.

Redwood Grove is a member of Net Zero Asset Managers Alliance, a group of international asset managers committed to promoting net zero emissions by 2050. It is an important symbolic organization that encourages companies to set and adhere to net zero targets. There has been a recent proliferation of organizations looking to bring companies and asset managers together around climate and broader Environmental, Social and Governance ("ESG") goals. Redwood Grove has been selective about joining them because they can service the marketing arm of asset managers more than our climate.

To improve investors' understanding of our portfolio, Redwood Grove categorized our holdings into three groups; (1) companies with targets in line with Net Zero by 2050, (2) companies with emission reduction targets but not in line with net zero targets and (3) firms with no meaningful emission reduction targets. It is acknowledged that there is a wide range in quality and substance even in Net Zero commitments. In fact, Redwood Grove would likely prefer a company with no Net Zero commitment but a clear plan and incentive structure to cut greenhouse gas emissions by 15% in the next five years, to one that has pledged 100% reductions without a timetable or plan. Scope 1, 2 and 3 emissions, science-based targets, the limitations of carbon offsets, and the differences between net zero, carbon neutral and carbon free all add an additional layer of complexity. We have talked about these in greater detail in past letters.

Nonetheless a broader framework to understand a portfolio's net zero commitment is valuable. As a frame of reference about 90% of the S&P 500 companies have a "sustainability or ESG report."[2] Two thirds of companies in the S&P 500 have emission reduction targets. Most of those emission reduction targets are not consistent with a 2050 Net Zero pledge. Of the top 500 companies in the

[1] https://www.generationim.com/our-thinking/news/listed-companies-account-for-40-of-climate-warming-emissions/
[2] https://fortune.com/2021/04/22/corporate-america-net-zero-pledges-bofa-reports-earth-day-sp500/

world only 17% have made net zero pledges.[3] Even when a company is targeting net zero by 2050, it may not meet our expectations. Move away from the top 500 companies to smaller companies and the percentage of net zero commitments drops precipitously.

Redwood Grove's objective is to invest in companies better positioned for the transition to a low carbon economy. Our analysis which looks at broad climate change trends like technological innovations, the physical impacts of climate change, consumer behavior and regulatory changes is more dynamic and holistic than a pledge. However, because Redwood Grove looks at a management's commitment to a transition to a low carbon economy and their stated goals to address climate change, the portfolio has more net zero commitments than the broader market as measured by the Russell 1000 or S&P 500. As of December 31st, 2021 the portfolio is 65% invested in companies that have emissions reduction targets in line with a net zero commitment. An additional 20% of the portfolio is invested in companies that have made emission reduction targets but not ones that are on a path sufficient to meet net zero. The remainder, 15% of the portfolio is comprised of companies that have made no reduction targets. However, approximately half of that 15% is an energy efficiency company and a solar tracker company. Both are small companies whose businesses are predicated on building products and providing services that directly mitigate the worst impacts of climate change. The balance, approximately 8% of our holdings are companies that we have engaged with and believe are near releasing emission reduction targets in the next twelve months, so stay tuned.

Net Zero commitments are not a requirement for us to invest in a company, nor does it represent the totality of our analysis. However, these commitments are used as part of a broader analysis on a company. Investors should reasonably expect to see our portfolio tilt toward companies that have made net zero commitments or shorter-term greenhouse gas reduction targets in line with carbon neutrality by 2050.

Reaching Net Zero Commitments

To reach net zero by 2050 is not a small task. McKinsey's recently published report, "The economic transformation: What would change in the net-zero transition" helps frame the challenge. [4] The report concludes that between now and 2050 an additional $3.5 trillion annually needs to be spent on low emissions energy, transport, buildings, industry, and agriculture. This would bring the total amount spent on energy and physical assets to $9.2 trillion annually or approximately 7.6% of global GDP. Fossil fuels will still play a role in 2050, but they will decline 55-70% compared to current levels. Of that $9.2 trillion annual spend about 70% needs to be on low emissions assets between now and 2050.[5]

Given the magnitude and urgency of the challenge, the substance of corporate Net Zero commitments falls materially short of their stated goals. However, they are improving. Net Zero pledges even when done with integrity provide a reason for a more robust climate analysis but

[3] https://c402277.ssl.cf1.rackcdn.com/publications/1499/files/original/Power_Forward_4.0.pdf?1622608268
[4] https://www.mckinsey.com/business-functions/sustainability/our-insights/the-economic-transformation-what-would-change-in-the-net-zero-transition
[5] https://www.mckinsey.com/business-functions/sustainability/our-insights/the-net-zero-transition-what-it-would-cost-what-it-could-bring#

alone are insufficient to make an investment decision. In addition, the substance of net zero commitments vary significantly. Let's look at the Energy sector, materially exposed to a low carbon transition and with some of the splashiest net zero announcements. Based on recent headlines, investors might erroneously conclude that many fossil fuel companies have begun a meaningful pivot toward a low carbon economy. Exxon Mobil, one of the most recent of the majors to make a net zero announcement, was greeted with the New York Times headline "Exxon Sets a 2050 Goal for Net-Zero Greenhouse Gas Emissions." [6] Other media outlets ran with similar headlines "Exxon pledges to Have Net Zero Emissions by 2050." [7] [8]

To start, Exxon Mobil did not "pledge" anything. They announced an "ambition" to reach Net Zero emissions by 2050. Even this ambition falls apart quickly, as it only covers Scope 1 and Scope 2 emissions, which are the emissions generated from their own operations. It does not include Scope 3 emissions, which are the ones created by use of their product in this case oil and gas. Scope 3 emissions are difficult to measure but for a fossil fuel producer they are really the whole point. Exxon Mobil's Scope 3 emissions are estimated to be about 4 times the amount of their Scope 1 and 2 combined and are the equivalent of approximately 8% of annual Greenhouse Gas Emissions for the United States.[9] Other American oil companies like Occidental Petroleum recognize this challenge and have pledged to reach Net Zero from use of their fuel by 2050.[10]

While most oil companies have not gone as far as Occidental Petroleum, many pledged to reduce their Scope 3 emissions. Their plans to do so often involves selling off their most carbon intensive assets like those found in the Canadian oil sands, only to have them developed by a smaller potentially less efficient oil company. Exxon Mobil's CEO Darren Woods has said he is not going to play the Scope 3 emissions shell game. Reducing the carbon intensity of a company's portfolio, Woods argues "has not solved the problem for the world. It hasn't made a dent in it."[11] In this regard he has a point.

Scope 1 and 2 reductions while not holistic are a step in the right direction. However, Exxon Mobil's public statements contradict the company's internal documents which were leaked to Bloomberg Green last year. The internal documents said Exxon Mobil expected emissions from operations to go up 17% from 2017 through 2025.[12] The company has since said they have recalculated their internal emissions.

One area Redwood Grove examines closely is a company's spending on meeting net zero targets. It helps separate action from aspiration. In the case of Exxon Mobil, they announced they would aim to spend $15 billion on "lower emissions investments" by 2027.[13] What appears to be a substantive commitment, ought to be evaluated in the context of overall corporate spending. $15 billion amounts to about 8% of Exxon Mobil's total capital expenditures over that time. Which means more than 90% of

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[6] https://www.axios.com/exxon-lobbyists-caught-video-greenpeace-ceo-apology-b213d384-268f-4a2b-b00e-88b3f7f2a0aa.html
[7] https://www.deseret.com/2022/1/18/22889689/exxon-mobil-pledges-to-have-net-zero-emissions-by-2050
[8] https://www.businessreport.com/industry/exxonmobil-pledges-net-zero-carbon-emissions-by-2050
[9] https://www.bloomberg.com/graphics/2020-opinion-climate-global-biggest-polluters-scope-3-emissions-disclosures/?sref=wINQCNXe
[10] https://www.oxy.com/globalassets/documents/publications/climatereport2020.pdf
[11] https://www.ft.com/content/6b785d00-5f23-11ea-b0ab-339c2307bcd4
[12] https://grist.org/climate/while-other-oil-companies-pledge-net-zero-exxon-plans-to-increase-emissions/
[13] https://corporate.exxonmobil.com/News/Newsroom/News-releases/2022/0118_ExxonMobil-announces-ambition-for-net-zero-greenhouse-gas-emissions-by-2050

capital spending will still be on fossil fuels. Based on Mckinsey's report and others, 8% of capital expenditures is woefully short of the amount necessary to meet 2050 Net Zero goals. Compare that other companies faced with similar urgency to transition, like General Motors, which has announced they are spending $35 billion over the next 5 years, with nearly 100% of their capital expenditures budget on the development of electric and autonomous vehicles.

While the amount is too little, Redwood Grove's investment process also looks at how the capital that is being spent is allocated. The term used by Exxon Mobil, "lower emissions investments" is a slippery one. A perfect piece of corporate jargon with little actual meaning. It is hard to know what is included in the $15 billion other than much of it will be spent on transitioning their existing operations to more efficient operations, which could be just already planned refurbishing of old facilities. The uncommitted remainder will be spent on "carbon capture and storage, bio-fuels and hydrogen research" which sounds promising though vague and curious.

Curious because Exxon Mobil is not spending on any existing economically viable clean energy technologies, like solar, geo-thermal or wind. A skeptic might say they are intentionally investing in the three furthest from viability technologies. We were not in the rooms when these decisions were made but Exxon Mobil's past strategies do reveal a pattern. Just last year Exxon's lead lobbyist admitted that Exxon Mobil supported a carbon tax specifically because they thought it was the least viable legislative solution to pass. Also, Exxon Mobil biofuels effort for example, has been focused on algae research. Most major oil companies have abandoned algae as a viable fuel alternative, and though Exxon Mobil argues it is promising they have not shared any research data with outside groups. This has not stopped Exxon Mobil from featuring algae in much of their advertising. An advertising budget that exceeds their research budget for algae.[14] Their "carbon capture" spending is focused on pumping CO_2 into the ground to extract more oil.

Not all Net Zero commitments are the same. Understanding the veracity of the pledge, the probability of a company reaching it and its economic impacts helps identify those companies best preparing for a low carbon economy. Redwood Grove's ability to do this analysis coupled with fundamental research provides us, we believe with insights about companies that are better positioned for long term growth.

Value is Dead, Long Live Value

2022 has seen increased expectations for value stocks. In the first month of 2022 the Russell 1000 Growth Index underperformed Value by almost 6%. Bloomberg news surveyed 106 asset managers and asked them what their top picks for 2022 were, "value" came in first (followed by "green" investments).[15] Consensus is an uncomfortable space for us at Redwood Grove, but there are reasons to think this could be a good year for a value bias. Increasing rates and a relatively strong core economy are cited as reasons for a potential value rotation in 2022.[16] Another is that going into 2022, the Russell 1000 Value Index was trading at approximately half the valuation of

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[14] https://www.theguardian.com/environment/2021/nov/18/the-forgotten-oil-ads-that-told-us-climate-change-was-nothing

[15] https://www.bloomberg.com/news/articles/2022-01-03/cheap-stocks-to-finally-have-their-day-in-2022-investors-say

[16] https://www.bloomberg.com/news/articles/2022-01-04/drubbing-in-tech-marks-biggest-new-year-stock-rotation-since-95

the Russell 1000 Growth Index. Other than at one point at the end of 2021, value hasn't been at such a discount to growth by that measurement for over two decades.

At the same time, clean tech stocks many of which had been out of Redwood Grove's reach due to high valuations have recently rerated downward. Some have sold off from their lofty valuations as much as 70-80%. For the first time in a while, we are seeing increased opportunities in pure play clean technology companies at attractive valuations. Redwood Grove is one of the only asset managers that is a combination of value and climate in the market. We do not have crystal balls, but in our opinion, we are well positioned for the years ahead.

As always, thank you for your continued trust in us. If you have questions, concerns or comments please do not hesitate to reach out.

With gratitude,

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The Russell 1000 Value Index is the benchmark for Redwood Grove Capital Fund, LP ("Redwood Grove Capital" or the "Fund"). The Index is designed to be a measure of the large and mid-sized capitalization companies in the United States equities market. The Index is a composite of roughly 1,000 securities issued by the largest companies in the U.S. in terms of market capitalization. The Index is a subset of the securities found in the Russell 1000.The Index is not necessarily indicative of the investment strategy for the Fund. Assets and securities contained within the Index are different than the assets and securities contained in the Fund will therefore have different risk and reward profiles.

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The WilderHill Clean Energy Index ("Wilderhill Index") tracks the clean energy sector, specifically, businesses that stand to benefit substantially from a societal transition toward use of cleaner energy, zero-CO2 renewables, and conservation.

The S&P 500 Index ("S&P 500") is a market capitalization-weighted index of common stocks of large capitalization companies. Companies in the S&P 500 have market capitalizations of at least $5 billion.

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