GRANAHAN INVESTMENT MANAGEMENT INC

Future Pathways

Portfolio Comments
June 30, 2024

Distinguishing Features

GIM builds the Future Pathways portfolio from the bottom-up; sector weightings are secondary to stock selection. During the period, the Future Pathways portfolio remained overweight Industrials, Information Technology, and Consumer Staples. We are equal weight Health Care and remain underweight the Russell 2500 Growth benchmark in all other sectors. The portfolio has no exposure to Utilities, Communication Services, Financials, Real Estate, or Materials.

Market Environment

The current market environment continues to be dominated by macro related factors, especially a hyper focus on U.S. inflation data. The year started out with higher-than-expected inflation data that supported a far more cautious approach to start of the rate cuts. Late in 2023 Federal Reserve Chair, Jerome Powell postulated that three rate cuts would occur in 2024, and the market was convinced even a higher number which could be implied from market data. With the negative surprise to inflation in the early part of the year, we are only now seeing the start of lower inflation. The Fed needed to have more of these data points in the first half of the year to feel confident in a rate cut at all in 2024. Now the debate with investors is the path of rate cuts going forward. While this is clearly still an unknown, we do feel that the pressure on inflation is likely to continue to subside as the economy grows at a more subdued pace than it did in 2023. We are seeing this clearly in the consumer space where bellwether companies like Nike and Levis's announced lackluster results late in June. McDonald's has seen consumer pushback on prices and as a result introduced a new lower priced $5 value menu. While these are just anecdotes, it shouldn't surprise anyone that when our debt takes a bigger piece of our budgets, there is less money to buy things, especially at these higher prices. As we approach the back half of the year, the inflation data will continue to be in focus and be a key determining factor in sentiment, particularly in small cap stocks and Pioneer companies.

Performance & Attribution

The Granahan Future Pathways strategy returned -10.4% in the quarter, lagging the -4.2% return of its Russell 2500 Growth benchmark. Challenges in quarter were largely tied to selection in Health Care and Consumer Staples. Selection in Information Technology and Industrials, and overweight Consumer Staples were positives this quarter, but not enough to offset the portfolio's detractors. With respect to LifeCycle categories, Core Growth, Pioneers and Special Situation all lagged the benchmark this quarter.

Top Contributors	Top Detractors
1. First Solar (Technology, Core Growth)	1. Array Technologies (Technology, Core Growth)
2. Pure Storage (Technology, Core Growth)	2. Evolent Health (Health Care, Special Situation)
3. Ameresco (Industrials, Core Growth)	3. Viking Therapeutics (Health Care, Pioneer)
4. Tetra Tech (Industrials, Core Growth)	4. Shoals Technologies (Industrials, Core Growth)
5. Monolithic Power (Technology, Core Growth)	**5.** Arcturus Therapeutics (Health Care, Pioneer)

Positioning
The second quarter was a difficult one compared to our benchmark. Most of this dynamic was created by poor performance in our Health Care-related stocks. This includes **Viking Therapeutics, Arcturus Therapeutics** and **Evolent Health**. We will briefly discuss all three and then move on to talk about the outlook for ongoing trends with our clean energy investments.

We believe that we can add significant value in our Health Care-related holdings, not only through diversification, but by making long-term strategic investments. In the case of **Viking Therapeutics**, we think we will be rewarded by investing in one of the most desirable early stage GLP-1 clinical programs. Many large cap pharma companies have added tens of billions of dollars to their valuation by announcing emerging GLP-1 programs with scant data. Meanwhile Viking has presented very strong early data that rivals existing therapies including an oral drug program while only having a valuation of $6 Billion (after being down over 30% in the quarter). Ultimately the strength of Viking's program, combined with the size of this market should make Viking an incredible partner or acquisition for a larger company. Not every new program with larger competitors will be able to replicate the success of Viking's early program results, and the ones with losing hands will likely look elsewhere to participate in what is likely to be a very key strategic class of drugs for most large Pharma companies. Even if that doesn't occur, the value of Viking's program should start getting more recognition. We believe our patience with Viking could be rewarded meaningfully even without a short-term benefit of its acquisition.

In the case of **Arcturus**, we believe the company is grossly undervalued because of confusion surrounding one of its key mRNA programs in Cystic Fibrosis (CF). The company released data on its Phase 1 program and the drug seemed to work well, but some patients had febrile reactions (sensation of a fever) at the highest dose given in this small trial. What is important is that the highest dose will not be used in the Phase II trial which is only offered to Class 1 patients that cannot take the standard modulation therapy that helps many people with CF. While only one Class 1 patient was in the Phase I trial, she did not have a febrile reaction, but did have a very significant improvement of lung function. We view the totality of all of this as a minor positive, but we need the Phase II study to really make a decent determination as to probability of success (which is totally normal). Unfortunately, the market did not view it that way and Arcturus's stock went down close to 50% in the last few weeks of the quarter. At this valuation ($600 MM market cap), however, we feel that we don't even need the CF program to be successful. The company has an agreement with the largest health care company in Australia (CSL) for its vaccine programs that could generate billions of dollars in commercial and development milestones alone. With that collaboration's first vaccine for Covid coming to the Japanese market this fall, the company has over $300 MM of cash and should have a very fairly small cash burn going forward - they do not need to access capital. If Arcturus and CSL have any success at all going forward, we are likely to see a nice recovery in the coming months and year. We will likely make small additions to our position.

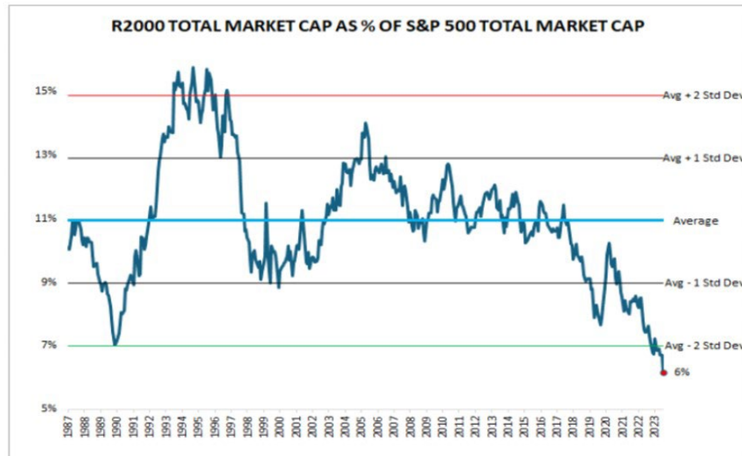
Lastly with **Evolent,** we again think there is a large mismatch between the fundamentals and the performance of the stock. As a reminder, Evolent is a value-based care provider that helps other health care companies improve outcomes for their members/patients while reducing cost and does share some risk with some of them as part of their agreement. During the quarter, Evolent signaled to the market that the prevalence of patients with cancer or heart issues expanded significantly in two markets, and it seems that investors have rushed to the exit doors because of this. We feel this is potentially overblown, but also

very myopic and reflects a lack of understanding of Evolent's business model. Even if this situation continued and expanded, it is not Evolent's job to control the number of patients that show up with cancer. Their goal is to treat them well and cost effectively. If the prevalence of cancer continues at higher levels, Evolent has the ability to be compensated for this change fairly. Furthermore, if there were consistently higher incidences of cancer, it would incentivize the company even more to help control the cost of its patients. The whole reason Evolent's customers work with them is because costs keep going up. While this might be a short-term issue until Evolent can remedy its contract provisions, we don't believe this to be a long-term issue, in fact it could prove to be a positive. With the stock trading at an all-time low valuation on EV/EBITDA basis (stock was down over 40% in the quarter,) we think Evolent represents a tremendous value even if 2024 numbers prove to be modestly lower. We have added to our position.

Before concluding, we wanted to provide a brief update on Clean Energy. We continue to have a relatively smaller allocation to clean energy names as developments continue. We have seen a major increase in tariffs in the United States, which raises the cost of Solar, and continued project related delays associated with regulatory uncertainty and bottlenecks with the Electrical infrastructure in the United States. Most of this is likely to continue for an extended period of time. Furthermore, the chances of a Republican sweep in the November elections could eventually take significant funding away from the IRA that is supporting clean energy earnings and lower project costs. The best investment we have made in this space in the second quarter was with First Solar, which as a U.S. manufacturer is getting the most benefit from the punitive tariffs now in place. That said, it did give up some of its gains after the Presidential debate in June. We will continue to be relatively cautious with this space for now and look for better opportunities that reflect solutions for equally important outcomes. One of our newest positions, Montrose Environmental Group, is a key provider of solutions to remediate PFAS chemicals which have emerged as very concerning threat to our environment and health. While tariffs in the United States and a Trump presidency might slow down the pace of change to more sustainable solutions, we think the market very much underappreciates the long-term secular trend (even with Solar) that should continue for decades.

Outlook

The second quarter of 2024 proved to be a challenging period for small cap growth companies. The headwinds of historic interest rate increases, persistent levels of inflation, political uncertainty, and numerous concerns about macro weakness all have pressured small cap growth stocks. While the broader market indices such as the S&P 500 continued to show advance on the backs of the AI related stocks, the performance of the Russell 2000 Growth index was more subdued. Small cap stocks have lagged large cap by 12.5% in the first half of 2024, the widest spread since 1973. The Russell 2000 total market capitalization is now just 6% of the S&P 500 total market capitalization, well below the historical average of 11%, representing a new low. Small cap valuations compared to large cap valuations are in a territory that we have seldom seen.



Source: Furey Research Partners and FactSet. Data as of 6/28/24.

The market has become extremely narrow with leadership concentrated in the Magnificent 7 and a handful of select stocks leading to a short list of stocks that are "Haves" and a much longer list of "Have Nots". While investors have increasingly become short-sighted, we believe there are a significant number of our companies operating very well with long-term secular drivers that have extremely compelling growth prospects and valuations. Over GIM's 39-year history, we have demonstrated compelling returns buying long-term growth stocks where valuations are meaningfully disconnected from their earnings power.

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