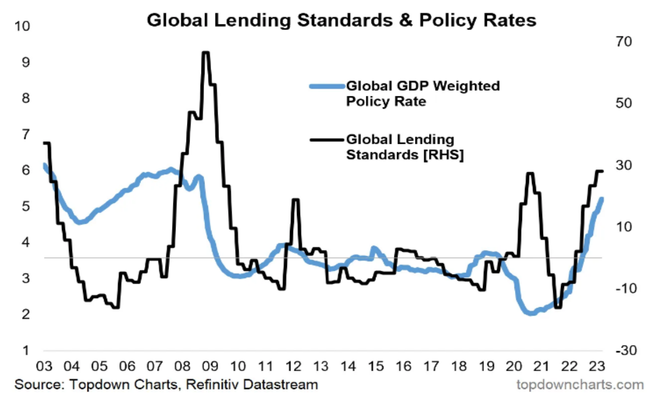
GRANAHAN INVESTMENT MANAGEMENT

GLOBAL SMALL CAP
Portfolio Comments
March 31, 2023

Summary of Global Investing Landscape

In addition to the existing economic challenges heading into the period, a banking crisis rapidly joined the mix of investor concerns in the first quarter of 2023. The first US bank failure since 2008 and Credit Suisse's collapse coupled with significant risk-free rate volatility are leading to more restrictive lending standards (see graph) that will most certainly lead to slowing in economic growth. We are also seeing the delayed effect of aggressive monetary policy is starting to show in a number of economic indicators. While goods inflation has shown some signs of abating, wage inflation remains stubbornly high. The dichotomy of central bankers that have communicated a desire to continue to raise rates to fight inflation and investors who believe weaker economic conditions will lead to a reversal in rates by year end is an interesting dynamic that will surely become clearer in the coming months.



However, not all regions are created equal. In the Eurozone, the Purchasing Managers' Index (PMI) has increased to 54 in March from 47 in November; a number above 50 indicates expansionary economic conditions. The feared European energy crisis never happened as a warmer winter eased demand and as other countries stepped up to supply Europe with natural gas, mainly through LNG exports. The supply chain disruption eased as COVID impacts abated due, in part, to China lifting restrictions. In Japan, the reopening of the economy has driven domestic demand growth while a return to inbound tourism will increasingly contribute as well. Japan is experiencing an increase in inflation but not nearly to the extent as the US and Europe. In contrast to other developed nations' aggressive monetary policy, the Bank of Japan has been more measured.

Encouragingly, as we begin to see the delayed effect of aggressive rate hikes, the conversation has shifted from how much the Federal Reserve and other central banks will raise rates to whether they should raise rates at all. Ironically, the banking issues experienced in Q1 may, in fact, accelerate the pause in monetary tightening. While a pause in rate increases will certainly not return us to the state of "normal" that we knew for decades prior to 2021, it would be a welcomed step in the right direction for our type of companies. Trying to predict the bottom is an impossible task and not a winning strategy for investing. We can be sure of one thing – stocks will discount this bottoming well in advance of it happening.

Conditions Improve for Growth but Long Duration Remains Challenging

The Global Small Cap strategy returned 3.8% in the period, lagging the MSCI World Small Cap benchmark of 4.3%. With increasing rates, tightening credit standards, and stubbornly high inflation, the market continued to prefer high quality, shorter duration companies. As such, our Core Growth companies (52% of the portfolio) meaningfully outperformed the benchmark (9.6% compared to MSCI 4.4%). Aside from our one bank holding, Texas Capital Bancshares, our Special Situation stocks contributed to relative performance in the quarter. Not surprisingly, Pioneers (25% of the portfolio), particularly Biotechs, struggled in this environment.

Sector and Region Positioning

The portfolio benefitted from sector allocation this quarter (+245bps), mostly driven by our overweight to Information Technology (+177bps). Financials (+79bps) and Real Estate (+23bps) also positively contributed to performance as continued higher interest rates and bank failures weighed on these sectors. Stock selection represented a negative impact of 274bps with Technology, Industrials and Healthcare all notable detractors. Semiconductors and Hardware combined to negatively impact performance by 131bps while Software & Services positively contributed 46bps from stock selection. In Industrials, the entire issue was concentrated in the more cyclical Capital Goods industry. **Aflen**, a fast-growing smart grid and EV charging company, sold off in the quarter despite not experiencing any downward estimate revisions. In Healthcare, Pharma and Biotechs were the main culprits to negative stock selection. As a reminder, sector weightings are purely a function of bottom-up stock picking.

Most Overweight Sectors
Avg. Weighting 12/31/22 – 3/31/23 (%)

	Portfolio	Benchmark	Diff
Technology	31.4	11.3	20.1
Healthcare	19.4	10.1	9.3
Industrials	21.9	19.2	2.7
Comm Services	4.0	3.0	1.0

Most Underweight Sectors
Avg. Weighting 12/31/22 – 3/31/23 (%)

	Portfolio	Benchmark	Diff
Energy / Utilities	-	7.7	(7.7)
Financials	6.4	14.0	(7.6)
Materials	1.1	7.6	(6.5)
Real Estate	3.8	8.7	(4.9)
Consumer Staples	-	4.6	(4.6)

From a regional standpoint, our goal is global diversification rather than managing the portfolio to the benchmark. The most notable change to last quarter's weightings was in the UK where we added Future plc (discussed below). All the other regions were roughly similar to the prior quarter. The UK weighed on performance the most. **S4 Capital**, a rapidly growing pure digital ad agency and technology service provider, underperformed in the period due to investor concerns relating to advertising spending. **JTC**, a fund administration provider to alternative investment funds, was impacted by the Silicon Valley collapse as investors worry about new fund formation. The US contributed the most to performance in Q1 with strong returns from **Portillo's**, **Euronet Worldwide** and **Power Integrations**.

Most Overweight Regions
Avg. Weighting 12/31/22 – 3/31/23 (%)

	Portfolio	Benchmark	Diff
Nordics	8.1	4.2	3.9

Most Underweight Regions
Avg. Weighting 12/31/22 – 3/31/23 (%)

	Portfolio	Benchmark	Diff
United States	52.5	58.0	(5.6)

UK	9.1	6.4	2.8	Japan	7.7	11.3	(3.6)
India [1]	2.1	-	2.1	Australia/NZ	1.4	4.1	(2.7)
Canada	5.7	3.9	1.8	Israel & Other [2]	1.0	2.6	(1.6)
Europe	11.0	9.5	1.5				

1.) WNS Holdings is domiciled in India, but almost all the revenue is from developed markets.

2.) Other: Portfolio includes Kornit Digital; Benchmark includes Asia ex-Japan, Africa, South America, Middle East ex-Israel

Stock Performance

Stock selection was -274bps in the quarter. Of the top 10 contributors and detractors, we continue to own all 10 companies. Detailed explanations of our top contributors and detractors are included below.

Top Contributors to Performance 12/31/22 – 3/31/23 (%)		
Fortnox AB	0.73	Own
Portillo's Inc.	0.45	Own
Baycurrent Consulting	0.38	Own
Euronet Worldwide	0.34	Own
Power Integrations	0.34	Own

Top Detractors from Performance 12/31/22 – 3/31/23 (%)		
Azenta, Inc.	(0.84)	Own
Texas Capital Bancshares	(0.62)	Own
Olink Holding AB	(0.40)	Own
Raksul Inc.	(0.40)	Own
Alfen NV	(0.26)	Own

The three largest relative contributors in Q1 were:

- **Fortnox AB (FNOX SS)** – Serving small and medium businesses with a compelling value proposition, Fortnox continued to drive strong organic revenue and earnings growth due to pricing power, upselling and cross-selling of new products. The opportunity to drive average revenue per client higher over the next few years remains a key piece of the investment case.

- **Portillo's Inc. (PTLO US)** – After a sub-par Q4 earnings report driven, in part, by unfavorable weather, the company showed a strong start to same-store sales in Q1 with guidance of 8-10%, far exceeding consensus estimates of 3%, as well as positive comments on profitability. The open-ended unit growth opportunity remains compelling.

- **Baycurrent Consulting (6532 JP)** – Despite investor concern related to a slowdown in digital transformation work, Baycurrent reported results that clearly shows that demand remains strong in Japan. Equally, if not more importantly, the company is managing labor effectively in terms of adding new headcount and pricing to cover wage inflation. Management is clearly executing well.

The three largest relative detractors in Q1 were:

- **Azenta, Inc. (AZTA US)** – Azenta is a leader in biological storage technology and services. The company reported in line earnings but tempered the margin outlook due to inflation, a slower recovery in China, and the acquisition of B Medical. Moderating organic revenue growth and muted margins are weighing on the near-term outlook, however Its healthy balance sheet is being used to accelerate share repurchases. We continue to own an above-average position in the stock.

- **Texas Capital Bancshares (TCBI US)** – Texas Capital came under pressure with the banking crisis even though it is an attractively valued growth bank that has refocused its strategy on core banking services to companies in the attractive Texas market. The restructuring, under a new CEO, has shown considerable progress improving the longer-term profitability of the bank while positioning the bank well ahead of its peers in terms of robust capital ratios. Despite the strong positioning of the bank, we did trim our position given the ongoing crisis that serves as an overhang on the stock.

- **Olink Holding AB (OLK US)** – Our top contributor last quarter, Olink was impacted by profit taking in Q1 despite continued strong momentum in fundamentals (e.g., 33% revenue growth). The company reported solid Q4 results, but in line guidance for 2023 was a slight disappointment in the context of rising expectations. Management reiterated its expectation for the company to achieve positive EBITDA in 2023 which led to positive EBITDA estimate revisions. We continue to own the stock.

Portfolio Activity

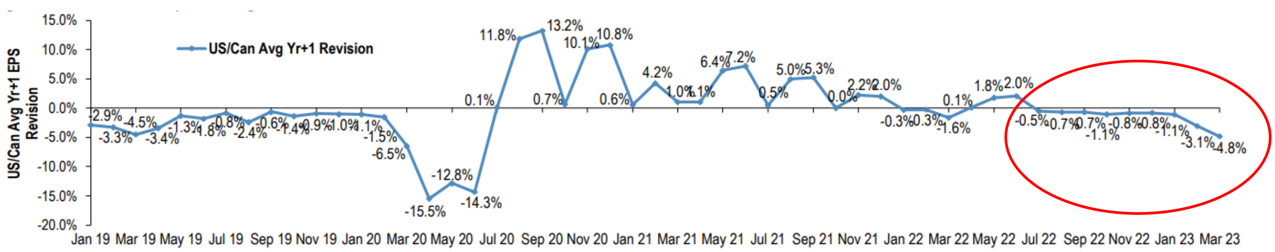
We added two companies to the portfolio in the first quarter. **Riskified**, a provider of fraud prevention software for ecommerce, is a leader in a large and growing addressable market that uses AI as a competitive differentiator. Classified as a Pioneer, management recently committed to achieving profitability much sooner than expected. **Future plc**, a global platform for intent-led specialist media (e.g., Tech Radar, PC Gamer, Marie Claire), represents a good example of a Special Situation. Despite growing earnings at a 46% compounded annual growth rate over the last 15 years and generating high returns, the stock has fallen to a 15% free cash flow yield and 7x P/E due to macro concerns, specifically advertising spending and ecommerce.

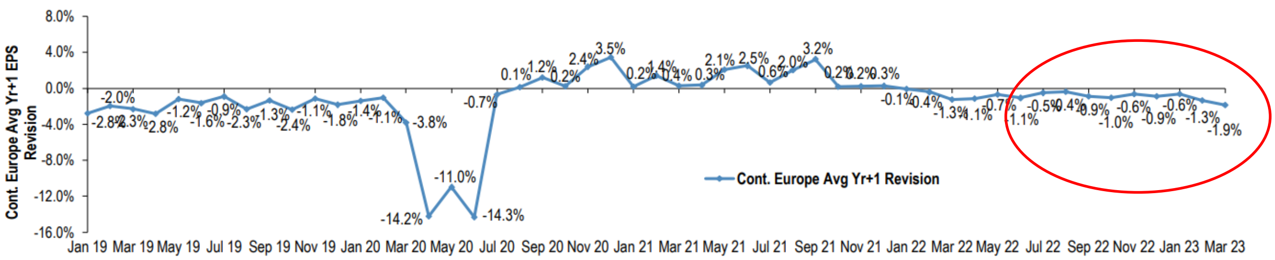
We sold four stocks in the quarter. **Avon Protection** is a leading manufacturer of life critical personal protection products to the military and first responders. Despite an optimistic outlook for defense spending in the US and Europe, the combination of management changes, the unexpected closing of a once promising new business segment, and uncertain timing on order patterns raised the risk profile of the company. We decided to move on from **Silvergate**, last quarter's largest detractor, as the fallout from the cryptocurrency market was dominating the narrative and sentiment on the stock. **Xometry**, an operator of a digital marketplace for on-demand manufacturing, was sold as the recent quarter exhibited a worse-than-expected slowing in demand and raised concerns about the effectiveness of the company's differentiated AI pricing model. Finally, we sold **Veracyte**, a developer of molecular test for oncology, based on valuation and after a strong run in the prior six months.

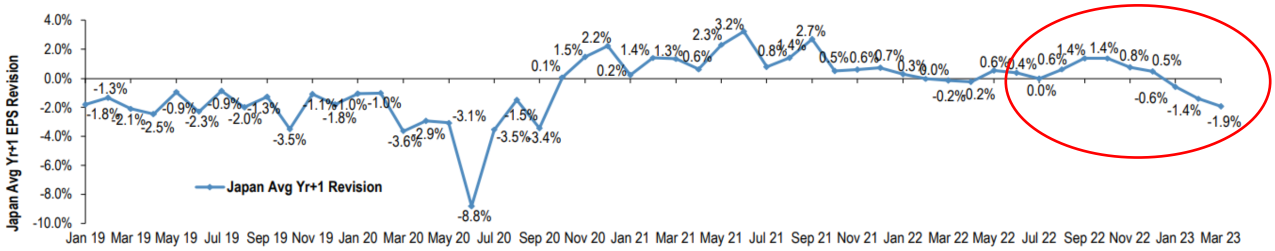
Where We Stand

Valuation multiples contracted significantly in 2022 and have remained at extremely low levels. The headwinds to improved investor sentiment are meaningful. As such, we find ourselves in a market in which earnings growth (i.e., the "E" part of P/E) is the primary driver of stock performance. Growth has certainly decelerated from the robust levels of the past few years and consensus earnings estimates are trending downward (see graphs below). However, the Global Small Cap portfolio continues to own companies that are growing well above that of the MSCI benchmark. Our focus is on evaluating the long-term growth prospects for our portfolio companies with an eye to more conservative near-term growth forecasts given difficult macro conditions.

Average revision to consensus Yr+1 EPS estimates







Source: JP Morgan Chase (Eduardo Lecubarri); Bloomberg, Datastream, Factset

While the near-term view remains as cloudy as any we can recall, and recession is a possibility, its length and severity are unknowable. Any recession, like any bear market, is ultimately finite and will in all probability be succeeded by a recovery. When economic growth slows, the earnings growth profiles of our portfolio companies shine. Regardless of how the macro-economic picture shakes out, we remain committed to our process of owning secular growth companies that can outperform in any economic cycle and compound strong earnings growth over long periods of time.

As always, we appreciate and thank you for trusting Granahan with the management of your capital. Please note that it is managed alongside our own.

Disclosure:

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