the ithaka group

Concentrated Growth Equity Managers

ITHAKA US GROWTH STRATEGY

FIRM OVERVIEW

- Founded in 2008
- Based in Bethesda, MD
- Concentrated growth investors
- 100% employee-owned

STRATEGY OVERVIEW

- Seeking high-quality, rapidly growing companies with duration
- Bottom-up, company focused
- A conviction-weighted approach
- Maximum of 35 large-cap holdings

PORTFOLIO OVERVIEW

- Inception date: 01/01/09
- Benchmark: Russell 1000 Growth ("R1000G")
- ~$910M AUM
- 5 investment professionals

OBJECTIVE

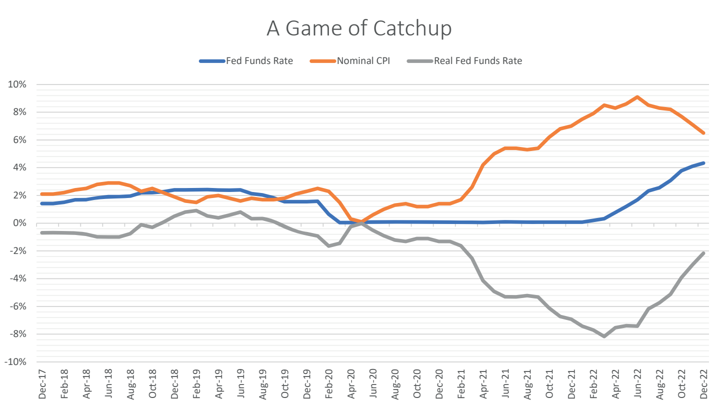
- Long-term growth of capital

PORTFOLIO MANAGERS

- Scott O'Gorman, CFA
- Andy Colyer, CFA

Market Review

The only good thing 2022 did for anyone was end. Much ink is being spilled about the historic nature of the last 12 months, which could be described as a period where there was "nowhere to hide." Stocks, bonds, and risk assets alike fell from all time highs with one of the few profitable trades involving a shift to cash, which still cost you dearly due to the ensuing decline in purchasing power (transitory inflation anyone?) All of this volatility and market turmoil caused the 60/40 portfolio to suffer its worst drawdown (down ~ 17% for the year) since the Great Financial Crisis. This fall came despite Wall Street analysts collectively being spot-on with regard to the earnings power of the overall market. In December 2021 the FactSet consensus prediction for 2022 S&P 500 earnings was $221 a share, which should be right around where it will end up. This estimate miss of less than $1 is the smallest on record, going back 1995. Despite being correct on earnings, most analysts published YE22 price targets for the S&P 500 between 4600 and 5100, far from where it actually closed at ~3840. How could the "collective we" have been so right, and yet so wrong?



Source: FRED, Statista

The answer to this question is relatively straightforward: the Federal Reserve. In December 2021, the average forecast for December 2022's Fed funds rate was just 0.5% according to Consensus Economics. This compares to the actual rate of 4.25% to 4.50%. To quote the great Yogi Berra, "It's tough to make predictions, especially about the future." Neither past prediction failures, nor knowledge of the unprecedented nature of our current situation, stopped market participants from trying to call a bottom or to forecast the timing and severity of the possible coming recession. Prognostications for the economy currently range from soft landing to Armageddon, depending on the latest Fed meeting minutes or CPI reading. As we sit here today, it seems the market has finally started taking the Fed seriously, with the Fed fund futures market pricing in a terminal rate in the 5.00-5.25% range, which happens to line up with the Federal Open Market Committee's dot plot released in mid-December. Over longer periods of time, stock prices tend to follow earnings growth, as the earnings power of the business becomes more important than the transitory macro factors. We now know, in hindsight, 2022 was the year of the Fed, but 2023 might be the year investors refocus on business fundamentals and try to separate the wheat from the proverbial chaff, making it once again a stock picker's market.

4Q22 Performance

PERFORMANCE (%)	4Q22	1 YR	3 YR	5 YR	ITD[1]
Ithaka US Growth Strategy (Gross)	6.3	(38.1)	2.4	10.5	14.8
Ithaka US Growth Strategy (Net)	6.2	(38.5)	1.9	10.0	14.3
Russell 1000 Growth ("R1000G")	2.2	(29.1)	7.8	11.0	15.0

[1] ITD = inception-to-date, annualized. Inception date is 1/1/2009.

During the fourth quarter Ithaka's portfolio outperformed in a mixed market. The Dow rose 15.4% and the S&P500 rose 7.1%, with the NASDAQ falling ~1%. The Russell 1000 Growth Index rose 2.2%, while Ithaka's composite gained 6.3%. Ithaka's 410 basis points (bps) of outperformance was due to stock selection, slightly offset by sector allocation. Our portfolio demonstrated modest breadth and depth, with 16 of 29 stocks we held all quarter, representing 55% of the names and 60% of the portfolio weighting, outperforming our benchmark.

At the portfolio sector level Ithaka realized positive relative returns in all four sectors in which we hold active bets. Ithaka's outperformance in the Consumer Discretionary sector was broad-based, with six of our seven holdings meaningfully adding to our performance. Within Technology, our relative underweight to Big Tech, and a rebound in some of the more beaten down semiconductor stocks, positively contributed to returns. Returns in the Health Care sector were evenly split between stock selection and sector allocation, with our overweight to the diabetes space positively affecting returns. Outperformance in the Financial Services sector was due to Ithaka's six percentage-point overweight to the sector, slightly offset by stock selection.

Contributors and Detractors

4Q22 TOP 5 CONTRIBUTORS (%)	RETURN	IMPACT
Mastercard	22.5	1.6
Intuitive Surgical	41.6	1.3
DexCom	40.6	1.2
NVIDIA	20.3	1.0
ASML	31.0	0.8

4Q22 TOP 5 DETRACTORS (%)	RETURN	IMPACT
Amazon.com	(25.7)	(2.0)
Blackstone	(9.5)	(0.6)
Apple	(5.8)	(0.3)
salesforce.com	(8.0)	(0.3)
PayPal	(17.3)	(0.3)

Top Contributors

Mastercard, Inc. (MA)
Mastercard is one of two leading companies (along with Visa, which we also own) that helps match information and funds between banks that have relationships with card-carrying consumers and banks that have relationships with merchants, thus ensuring payment transactions are reliable and secure. Since the company's founding in 1966, Mastercard has benefited from the growth in personal consumption expenditure, the strong secular shift from cash and checks to credit and debit cards, and a highly profitable business model that generates ample free cash flow. During the fourth quarter Mastercard's stock price outperformed, largely due to the ending of global governmental COVID policies and the resilient spending of the global consumer.

Intuitive Surgical, Inc. (ISRG)
Intuitive Surgical is a medical device company that sells the da Vinci robotic surgical system. This system is primarily used for hysterectomy, prostatectomy, cholecystectomy, and hernia repair surgeries. The da Vinci systems are designed for minimally invasive surgery, which has the benefits of reduced pain, blood loss, and recovery time compared to traditional open surgery. The company's revenues are generated in three main areas: 1) system sales, 2) instruments & accessories (scalpels, cauterization instruments, graspers, etc.), and 3) maintenance, repair, training and support. The stock's second quarter outperformance was concentrated around the company's earnings announcement, where solid global procedure growth resulted in a strong beat-and-raise quarter.

DexCom, Inc. (DXCM)
DexCom is a medical device company focused on the design, development and commercialization of continuous glucose monitoring (CGM) systems for people with diabetes. Diabetes is a chronic, life-threatening disease for which there is no known cure. DexCom's CGM system is superior to traditional finger-stick tests because it provides users with continuous data (including glucose trends and time spent in hyper or hypoglycemia) versus a snapshot in time. DexCom's outperformance was due to a strong earnings report that showed accelerating domestic revenues, leading to a substantial beat of Street expectations. In addition to the beat, the company announced its new G7 product would undertake a large commercial launch in the first quarter of 2023, bringing this multi-year anticipation cycle to an exciting end.

Top Detractors

Amazon.com, Inc. (AMZN)
Founded in 1994, Amazon has evolved from its early roots as an online bookstore to become one of the world's largest eCommerce retailers. At the end of 2021 Amazon stood poised to capture >55% of all online US retail sales, representing five times more share than the next closest competitor. In addition to eCommerce, Amazon Web Services ("AWS") has become the market leader in the outsourced cloud infrastructure business. Further, Amazon Advertising is garnering significant share in digital advertising, particularly product placement ads, thanks to consumers beginning their product searches on Amazon's site. In late October Amazon released a relatively weak earnings report that missed Street expectations while also missing forward estimates for the all-important holiday quarter. The soft guidance was due to a deceleration in the AWS business, lagging international performance, and previously announced operating efficiencies taking longer to manifest than expected.

Blackstone Inc. (BX)
Blackstone is one of the world's leading alternative asset management firms, with total Assets Under Management of $880B at year-end 2021. Over the past few decades Blackstone has evolved into one of the financial service industry's largest asset gatherers, managing money on behalf of pension funds, insurance companies, and individual investors. The company remains at the forefront of financial innovation, broadening its product offering through time. As it stands today, Blackstone invests clients' capital across four business segments: (a) Real Estate, (b) Private Equity, (c) Hedge Fund Solutions, and (d) Credit & Insurance. The stock's relative underperformance in the quarter was due to fears surrounding elevated redemptions in the company's Real Estate Income Trust (BREIT) and concerns around the impact of rising rates on the company's Real Estate investments.

Apple Inc. (AAPL)
Apple (AAPL) is a global consumer electronics and software company that designs and markets mobile communications devices (iPhones), personal computers (Macs), multi-purpose tablets (iPads), and wearables (Apple Watch, AirPods, and

Accessories). The company also sells a number of high-margin consumer services including Advertising, AppleCare, Cloud Services, Digital Content, and Payment Services. Apple's underperformance in the quarter was due to China's stringent COVID quarantine measures, which resulted in a Foxconn assembly facility going offline for multiple days, impacting the manufacturing of the iPhone 14 Pro and iPhone 14 Pro Max.

Transactions

During the quarter we initiated one new position, Palo Alto Networks (PANW) and eliminated one position, Meta Platforms (META). Our trailing 12-month turnover decreased 550bps to 7.1% while our trailing 3-year average annual turnover increased 40bps to 14.0%.

Market Outlook

Ithaka claims no expertise in economic or market predictions, and top-down analysis plays a minor role in our approach to investing. We typically take our cues on the markets and the economy from our companies' management teams as they discuss their business prospects, and industry outlooks, during quarterly calls. The overall messaging during the fourth quarter continued to be one of caution and patience. During 4Q22 most management teams claimed they had not been seeing significant indications of an impending recession in their businesses, but remained prepared to act should the need arise. There was another group of management teams, those running the "pandemic darlings," that professed to being more proactive in preparing for a downturn. This more cautious group seemed to have reached the conclusion that the demand trends experienced during the pandemic would not continue, and therefore they needed to right-size their bloated cost structures. Given these companies are mostly driven by intellectual and human capital, that means layoffs. In 2022 we had about 30% of our portfolio holdings announce some form of layoffs, with a good portion of the remainder either slowing hiring or stopping it altogether. While layoffs are (unfortunately) at times a necessary part of running a business, such actions will likely provide these companies with more flexibility should a downturn arrive, and if one never does, they should provide a better place from which to invest in future growth.

With regard to the macro scenario, there is a lot of negative news in the headlines making it fairly easy to paint the downside scenario for global economies and their corresponding asset markets. Instead of rehashing all of the factors that could lead to the most forecasted recession in history (7 out of 10 economists agree), we instead decided to take a different approach and pen a succinct bull case for risk assets over the medium term, which goes something like this: after raising rates seven times in an aggressive fashion during 2022, the current Fed funds rate of 4.25%-4.5% is likely within one percentage point of its peak for this cycle, with the market already having priced in the remainder of the hikes. On top of still-rising rates, we have seen inflation easing off of its peak, falling 260bps from 9.1% in June to 6.5% in December. At its current trajectory we could see real rates flip from negative to positive in a matter of months (see chart in Market Review), giving the Fed cover to stop rate hikes and possibly contemplate rate cuts in the not too distant future. When analyzing the real economy, the aggressive rate increases have not yet had a noticeable detrimental impact. Unemployment is still falling (sitting at a record low of 3.5%), nominal wage growth is still strong at 5% and real wage growth, while still negative, is edging closer to flipping into positive territory. Combine all this with the S&P 500 trading at ~17x forward earnings, and you have the possibility for attractive returns in 2023 and beyond.

In part due to the market drawdown we are all experiencing, we end this letter as we always do, acknowledging that one's ability to digest, forecast, and accurately discount the above macro factors in order to determine when the ultimate bottom will be put in place is pretty much an exercise in futility. We therefore choose to stay fully invested and focused on our mission of creating wealth for our clients by owning, in size, the great growth stories of our day.

[1] Turnover Rate indicates the frequency of changes to the portfolio, and is calculated as the greater of the buys or the sells during the period as a percentage of the assets under management at the time of each transaction. The calculation eliminates the effect of client-directed cash flows. Average Annual Turnover is calculated based on a trailing three year period.

Risk Disclosure

Past performance is not indicative of future results. The performance shown is for the Ithaka US Growth Strategy Composite. All fully discretionary taxable and non-taxable accounts are added to the composite following the first quarter in which their ending market values equal or exceed $0.5 million. Results of individual accounts may vary from the composite depending on account size, timing of transactions and market conditions prevailing at the time of the transaction. The gross-of-fee performance does not reflect the payment of management fees and other expenses that are incurred in the management of an account. The net-of-fee performance includes the payment of such fees and expenses. Gross-of-fee performance and net-of-fee performance both include the reinvestment of all distributions, dividends and other income.

The performance shown is compared to the Russell 1000 Growth Index and the S&P 500 TR Index. The Russell 1000 Growth Index measures the performance of the broad growth segment of the U.S. equity universe. It includes those companies from the Russell 1000 Index with high price-to-book ratios and high forecasted growth as compared to other companies listed in the Russell 1000 Index. The S&P 500 TR Index is a market-capitalization-weighted index that measures the performance of 500 leading publicly traded companies in the U.S. The index tracks both the capital gains as well as any cash distributions, such as dividends or interest, attributed to the components of the index. These broad-based securities indexes are unmanaged and are not subject to fees and expenses typically associated with managed accounts. Individuals cannot invest directly in an index.

The information provided in this report should not be considered a recommendation to purchase or sell any particular security. There is no assurance that any securities discussed herein will remain in an account's portfolio at the time you receive this report or that securities sold have not been repurchased. The securities discussed do not represent an account's entire portfolio and in the aggregate may represent only a small percentage of an account's portfolio holdings. It should not be assumed that any of the securities transactions or holdings discussed were or will prove to be profitable, or that the investment recommendations or decisions Ithaka makes in the future will be profitable or will equal the investment performance of the securities discussed herein. Investing in securities entails risk and may result in loss of principal.

The Ithaka Group, LLC (Ithaka) has entered into a written agreement with Cedar Partners, ltd. (Cedar), which requires Cedar to provide client relationship and marketing services to Ithaka, including the introduction of prospective advisory clients to Ithaka. Cedar is not affiliated with and has no relationship with Ithaka other than a contractual relationship governed by the agreement between Cedar and Ithaka. Ithaka compensates Cedar by the payment of an Annual Retainer plus an Account Fee equal to 20% of the investment management fees paid to Ithaka by clients introduced by Cedar. The retainer is paid during the term of the Agreement between Cedar and Ithaka. The Account Fee is paid for as long as the client's account is managed by Ithaka. Ithaka has a standard fee schedule and does not charge any additional amounts to clients who were marketed by Cedar to cover the amounts Ithaka pays to Cedar.

Contact: Scott O'Gorman
3 Bethesda Metro Center | Suite 810 | Bethesda, MD 20814
Ph: 240.395.5000 | www.ithakagroup.com