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

FUND OVERVIEW
- Inception date: January 1, 2009
- Benchmark: Russell 1000 Growth
- ~$1.5 Billion AUM
- 5 investment professionals

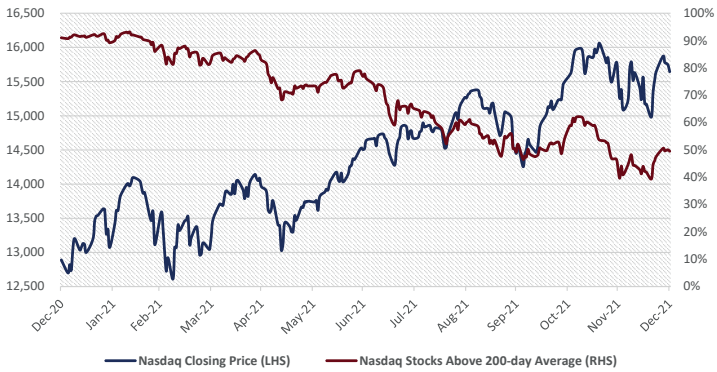
OBJECTIVE
- Long-term growth of capital

PORTFOLIO MANAGERS
- William Johnson
- Scott O'Gorman, CFA

Market

Despite a relatively tame first three quarters of the year, the fourth quarter brought heightened volatility as financial markets reacted to the Fed's guidance for a more aggressive withdrawal of excess liquidity measures and easy-money policies. Despite this volatility, the major US indices finished the year on a high note, cementing 2021 as the year that the huge market cap companies became gigantic. During the year our index, the Russell 1000 Growth, saw its total market capitalization rise ~$6.6T, or ~27% (excluding companies that didn't start the year in the index). While this is an impressive number, it doesn't tell the story of the turmoil beneath the surface. Of that $6.6T gain, the eight largest holdings gained ~$3.4T of market cap, accounting for 52% of the overall growth. These gains further increased the concentration of the index, which saw its top 10 holdings rise to 49% of the total, up 410bps y/y. The interesting story here is not the absolute dollar gains, but how a few companies were able to prop up an index that saw meaningful selloffs among the majority of its constituents.

The chart below depicts the increasing price of the Nasdaq (blue line) during the year versus the number of holdings in the Nasdaq that were above their 200-day moving average (red line) at that moment in time. This chart shows that as the year wore on market breadth eroded and a relative few number of names picked up the slack and propelled the index upward.



Source: Barchart.com, Thomson Reuters

The explanation for this phenomenon was likely two-fold. The first, and most obvious, revolves around valuations. By late in the year the valuations of a number of companies in the index had reached, and surpassed, their pre-COVID highs driven by massive liquidity injections and rock bottom interest rates. The actions of the Fed combined with Covid-19 induced supply chain disruptions eventually led to skyrocketing inflation, increasing 7.0% y/y in December, the largest increase since the early 1980's. This apparent runaway inflation prompted the Fed to signal an imminent reduction in market liquidity and multiple Fed Funds rate hikes during 2022. The fear of the unknown contributed to pushing investors into more safe haven assets, which brings us to explanation #2: In times of perceived market turmoil or confusion, it is typical to see a "flight to safety." And in an environment where real yields are deeply negative (-5.3% to be exact), the largest, most profitable, widest-moat businesses provide such safety. As we sit here today, it is not knowable if the largest market cap stocks will continue to act as ballast and keep the indices aloft, or if these market "generals" will succumb to the fear, uncertainty and doubt and follow the lead of their less hearty soldiers below their respective 200-day moving averages. The answer to this question relies on the anticipated path of rate hikes, which relies upon resolution to the pandemic, supply chain disruptions, and inflation, to name a few.

4Q21 Performance

PERFORMANCE (%)	4Q21	1 YR	3 YR	5 YR	ITD[1]
Ithaka US Growth Strategy (Gross)	2.4	15.2	33.8	27.9	20.4
Ithaka US Growth Strategy (Net)	2.2	14.5	33.1	27.3	19.9
Russell 1000 Growth	11.6	27.6	34.1	25.3	19.4

[1] ITD = Inception-to-date, annualized.

During the fourth quarter our portfolio underperformed in an environment that witnessed the major equity indices appreciating in value, with the S&P 500 up 10.6%, the Dow Jones up 7.4%, and the NASDAQ up 8.3%. Ithaka's composite gained 2.4%, underperforming the Russell 1000 Growth Index, which rose 11.6%. Ithaka's 930 basis points (bps) of relative underperformance was split between both sector allocation (-190bps) and stock selection (-740bps). Our portfolio performance demonstrated weak breadth and depth, with only

28% of our period-end holdings and 25% of our total portfolio weighting outperforming our benchmark.

At the portfolio sector level, Ithaka realized negative relative returns in all four sectors in which we hold active bets. The two main storylines for our portfolio's lackluster performance were 1) there was a broad-based rotation out of 'riskier' or 'expensive' growth stories into more 'stable' or 'safe' growth stories and 2) there was an aggressive rotation out of Fintech, likely due to heightened valuations and fears surrounding the Omicron variant of COVID-19. With regard to #1, there have always been (and will always be) moments in time when all at once investors decide to pull in their horns and sell stocks they perceive to be overvalued, irrespective of the underlying business's strength or competitive advantages. In our tenure at Ithaka, we have seen this multiple times, with the first and fourth quarters of 2016, and the fourth quarter of 2018, coming readily to mind. While in the short term this type of price action is frustrating, we continue to like the companies we own and are confident investors will return to our names as they deliver the underlying fundamentals to justify their valuations.

Contributors and Detractors

CONTRIBUTORS	DETRACTORS
NVIDIA	PayPal
Microsoft	Block
Apple	MercadoLibre
Advanced Micro Devices	Twilio
Qualcomm	Veeva Systems

Top Contributors

NVIDIA Corporation (NVDA)
NVIDIA is the market leader in visual computing through the production of high-performance graphics processing units (GPUs). The company targets four large and growing markets: Gaming, Professional Visualization, Data Center, and Automotive. NVIDIA's products have the potential to lead and disrupt some of the most exciting areas of computing, including: data center acceleration, artificial intelligence, machine learning and autonomous driving. The stock's strong quarterly return was due to unprecedented demand for the company's GPUs, with particular strength in Gaming (partially driven by cryptocurrency mining) and the Data Center.

Microsoft Corporation (MSFT)
Microsoft builds best-in-class platforms and provides services that help drive small business productivity, large business competitiveness, and public-sector efficiency. Microsoft's products include operating systems, cross-device productivity applications, server applications, software development tools, video games, and business-solution applications. The company also designs, manufactures, and sells devices, including PCs, tablets, and gaming/entertainment consoles that all integrate with Azure, its cloud computing service. In the quarter Microsoft benefited from overall strong market-wide performance and the perception that the company's price-to-earnings multiple is cheap relative to its post pandemic growth profile.

Apple Inc. (AAPL)
Apple 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), Home and Accessories. The company also sells a number of high-margin consumer services including Advertising, AppleCare, Cloud Services, Digital Content, and Payment Services. Apple outperformed in the quarter despite missing F4Q21 earnings estimates, as industry wide silicon shortages impacted the company's top-line to the tune of $6B. Despite the headwinds analysts praised the company for its cash generation and continue to believe we are in the midst of an iPhone super cycle that will drive growth for years to come.

Top Detractors

PayPal Holdings, Inc. (PYPL)
PayPal is a leading payment technology platform that enables consumers and businesses to securely send and receive online and mobile payments, without disclosing payment card data. At year-end 2021, management is anticipating >430M active accounts from over 200 markets around the world. In the fourth quarter PayPal's stock sold off following a mixed quarterly announcement that saw the company beat Street expectations on all but the top-line. In addition to the mixed quarter, market participants seem to be pricing in potentially weak consumer spending growth in 2022 as tightening financial conditions limit consumers' desire and ability to increase consumption.

Block, Inc. (SQ)
Block, formally known as Square, offers its customers a cohesive commerce ecosystem that helps merchants of all sizes start, run, and grow their businesses. Block has expanded well beyond its inaugural white dongle payments reader, offering merchants a number of new hardware products (Square Register, Square Terminal, Contactless Reader, etc.) and software products (employee management, payroll, eCommerce, marketing, loyalty, etc.) to resolve various customer pain points. In the fourth quarter Block's stock sold off following a quarterly announcement that missed Street expectations on the top-line and met on the bottom. Management guided to growing expenses in 2022, limiting profit growth to capture additional market share. The combination of the earnings miss and expectations for weak consumer spending growth in 2022 led to the selloff.

MercadoLibre, Inc. (MELI)
MercadoLibre is the leading e-commerce network/platform in Latin America, connecting merchants and consumers through its industry-leading brands and technology. In addition to its e-commerce prowess, Mercado also owns the dominant regional digital payments platform, MercadoPago. MercadoPago has recently made huge strides in processing payments for off-platform transactions, in addition to processing payments for its own family of websites (on-platform). MercadoLibre continues to benefit from a flywheel effect, as each business under the Mercado umbrella helps bring more users into the ecosystem, leading to more merchants and product availability, which attracts more users. In the quarter MercadoLibre suffered from increased selling in response to the prospect of higher interest rates that impacted high-growth, high-multiple stocks.

Transactions

During the quarter we eliminated Autodesk (ADSK). Our trailing 12-month turnover was roughly flat at 18.7% while our trailing 3-year average annual turnover increased to 14.8%.

Market Outlook

Ithaka claims no expertise in economic or market predictions, and top-down analysis plays virtually no part in our approach to investing. Instead of providing macro or market-wide predictions, we can provide some perspective our investment team gleaned while listening to our companies' management teams discuss their business prospects, and industry outlooks, during recent quarterly calls.

Much like the rest of 2021, the third quarter earnings calls kept pulling on well-known threads. Management teams professed the difficulties associated with operating in, and forecasting for, a business environment that is mired in the threat of potential Covid19-variant-induced shutdowns, supply chain disruptions, labor market tightness (and resulting upwards pressure on wages), and overall inflationary pressures. At this point in time it seems to be common knowledge that these factors are inter-related, where on some level the pandemic is impacting labor markets, and in turn supply chains, and is thus causing inflationary pressure. One potential headwind that doesn't seem to be getting as much airtime is the difficult comps that most businesses will face in the 1H22. For most of 2021 companies enjoyed relatively easy 2020 pandemic comparables, with some investors looking through these numbers to a more 'normalized' 2022. Now that 2022 is upon us, investors will be laser focused on what the financial profile and growth trajectory of the underlying businesses is, potentially leading to increased volatility around reported earnings and forward guidance. Layer this added pressure on top of various macro factors (see below), and you have a recipe for potentially large swings in the prices of stocks that underdeliver.

Stepping back from our portfolio and taking a broader look at the investing landscape, market participants at large are grappling with how fast the Fed will be raising rates and removing liquidity from the system. By way of background, in late November Jerome Powell threw in the towel for team 'transitory,' stating that inflation is proving to be "more powerful and persistent than expected." It was at this time the market started pricing in a 50% chance of a rate hike as early as May, with ~60bps of increases by year end 2022. Fast forward to early 2022 and the market is now anticipating a ~75% chance of liftoff in March, with a 30% chance of four total hikes by the end of 2022. In addition to the hikes, the Fed has telegraphed that it may move quickly to end its pandemic-era policies of expanding its balance sheet through open market purchases, with liquidity ending shortly after its first rate hike. The Fed has now inched closer to taking its first step onto a narrow tightrope. Raise rates too quickly and it risks damaging the economic recovery and increasing the unemployment it spent trillions to reduce. Raise rates too slowly and it risks entrenchment of the fastest inflation the US has seen in decades, necessitating quickly raising rates, which might derail the post-pandemic economic recovery. As outlined last quarter, the strength of the US consumer provides the Fed some cushion if it indeed needs to raise rates more aggressively, potentially limiting the fallout from a significant slowdown in the economy. As always, we acknowledge that the answers to these questions are unknowable and we therefore stay focused on our mission of creating wealth for our clients by owning, in size, the great growth stories of our day.

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 and may include fee estimates for clients who pay in arrears. 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. 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. This broad-based securities index is unmanaged and is 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