Guinness Atkinson

Global Innovators Fund

Managers Update – December 2018

November in review

Chart 1 Source: Bloomberg, as of November 30th 2018

Having weathered one of the worst months for equity markets since October 2011, markets realized some recovery across the majority of regions in November. In unfamiliar territory, Asia and Emerging Markets produced the highest returns on increasingly positive exchanges between the US and China and a possible slowdown in US interest rate hikes, giving some additional relief as the US dollar pulls back.

All eyes were on Donald Trump and Xi Jinping at the G20 summit late November, as the two met for the first time in over a year. Markets had some relief to hear the US and China in agreement on a 2-month trade tariff pause that sees the proposed increase in tariffs from the US postponed until March 1st to allow the two parties to reach further agreements. Equity markets also rallied as Jay Powell, the Federal Reserve chairman, indicated US interest rates were closing in on "neutral levels", raising the possibility of a slow-down in the FEDs rate-hiking program.

China continued to release weaker economic data with credit growth at its slowest pace on record and manufacturing PMI (Purchasing Managers' Index) falling to 50 – suggesting government's attempts to stimulate the economy have thus far been muted. However, there was a brief rally on the back off G20 talks, leaving the CSI 300 index at 0.85% (in USD) over the month. With the market reacting positively to talks between the US and China – in which only a pause has been agreed - it raises the prospect of additional larger reactions if negotiations yield more promising outcomes.

Brexit negotiations had what seemed to be a breakthrough with Theresa May and the EU agreeing on a proposed exit agreement. However, May still faces an uphill battle as discontent for the proposal continues and the biggest hurdle is still to come – rallying Members of Parliament to push the agreement through parliament on the December 11th.

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Oil entered into bear market territory over November on worries of over-supply. This came as the US re-imposed sanctions on Iran but handed select countries waivers for an extended adjustment period. Additional data showed US oil production surged to new records, causing additional fears regarding global over-supply. Saudi Arabia faces pressure from both sides as the US push for sustained supply levels, but oil prices at current levels may cause larger economic headwinds.

Semiconductors on the rise…

In the last month we have seen stronger performance from semiconductor names such as KLA Tencor and LAM Research. Semiconductor stocks have historically been more volatile and cyclical than other parts of the IT sector. However, looking through the short-term noise, the outlook for semiconductor stocks continues to look very favorable driven by numerous innovation themes from Artificial Intelligence and Machine Learning, to Augmented Reality and Autonomous Vehicles, etc.

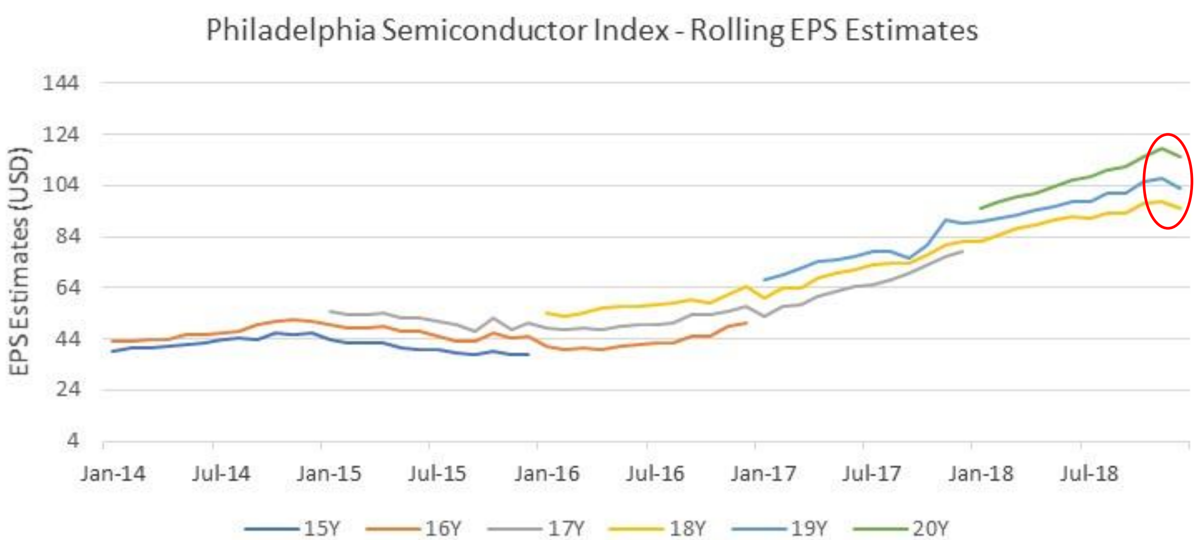

Chart 2. Source: Bloomberg, as of November 30th 2018

From chart 2, it can be observed that, based on the Philadelphia Semiconductor index, EPS (earnings per share) revisions have risen strongly over the past few years with a slight tick down in recent months. However, this still prices in an 8% growth rate between 2018 and 2019 and 12% between 2019 and 2020.

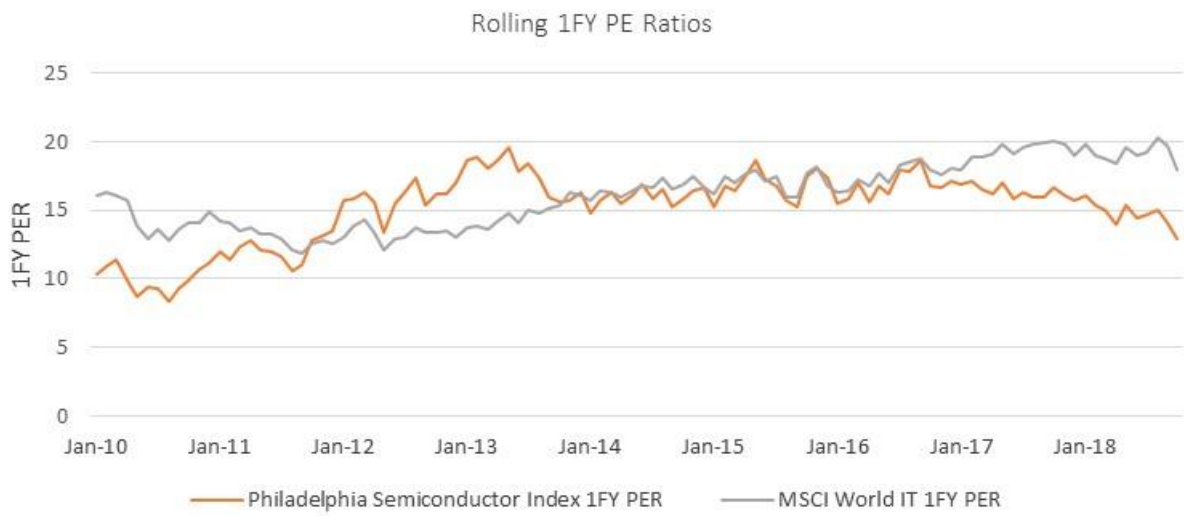

Chart 3. Source: Bloomberg, as of November 30th 2018

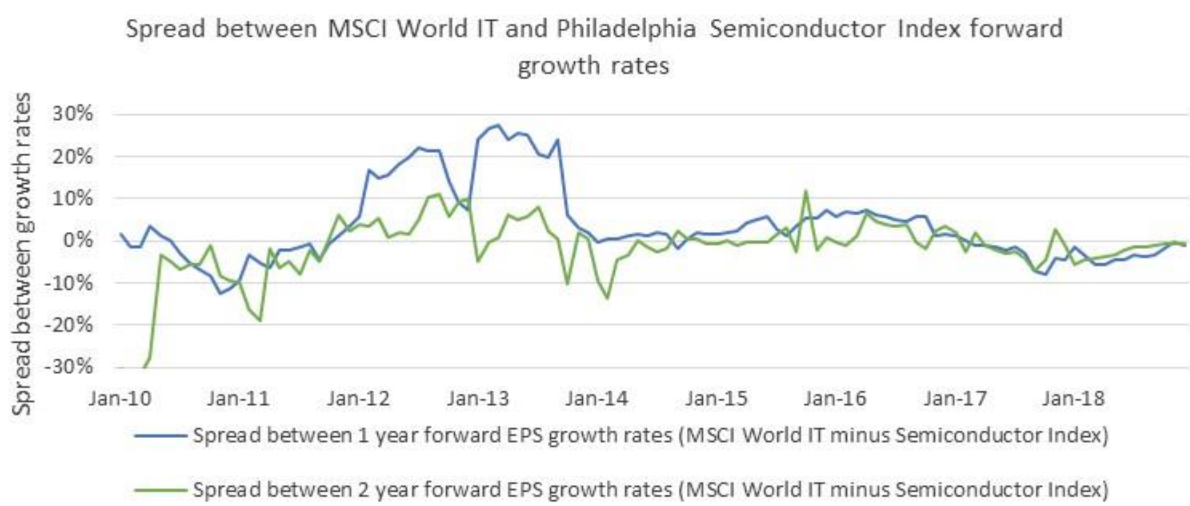

Chart 4. Source: Bloomberg, as of November 30th 2018

When compared against the MSCI World IT index, the Philadelphia Semiconductor index exhibits a ~26% valuation *discount* (chart 3), but crucially is being priced with similar growth rates over one and two-years (chart 4). This presents an invaluable opportunity to own companies with a growing influence in a technologically advancing society at a substantial discount to alternative areas of IT.

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Summary performance

For the month of November, the Guinness Atkinson Global Innovators Fund, Investor class, provided a total return of 1.09% (USD) against the MSCI World Net Total Return Index return of 1.14% (USD). Hence the fund marginally underperformed the benchmark by 0.05% (USD).

Having weathered the October sell-off – the worst since October 2011– it is useful to reflect on the fund's investment strategy. During periods of volatility, such as the current shake out, it is important to avoid poor quality companies which can lead investors to suffer a permanent loss of capital. Poor quality companies make low levels of profitability, have stretched balance sheets, are often in declining industries and have a low market share due to a lack of competitive strength. The underlying quality of the companies that we own is extremely high: on average our companies have earned a return on capital which is double that of the MSCI World Index, and they collectively have more cash than debt. Not only that but our companies have been growing their revenues and earnings faster than the MSCI World and yet our companies are typically cheaper when measured by free cash flow yield.

Performance drivers

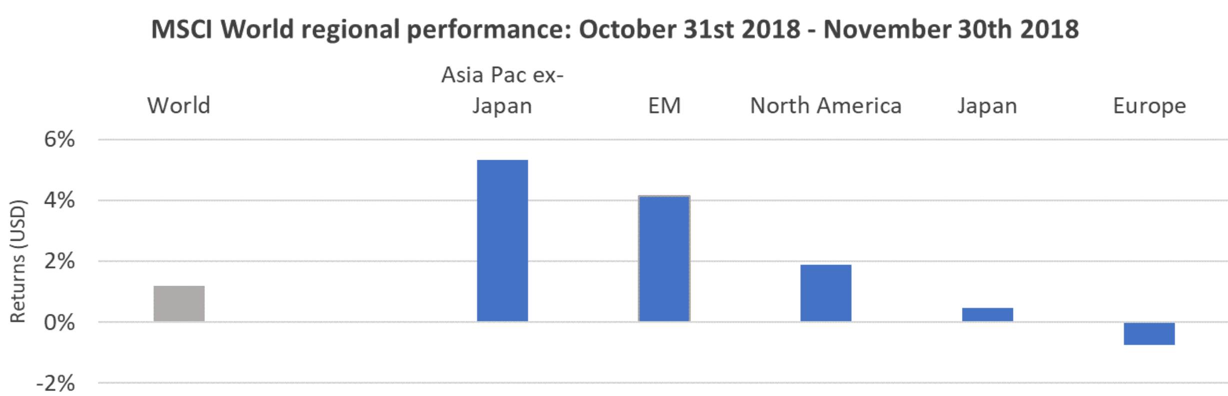

Chart 5. Source: Bloomberg, as of November 30th 2018

The fund's allocation to China and the US were the biggest contributors to the fund's outperformance over the month. Our overweighting to China (~15%) contributed positively to asset allocation relative to the MSCI World as the Asia and Emerging markets regions rebounded on softer trade talk. With the portfolio slightly underweight North America, asset allocation was a slight drag with the US performing well on trade talk and a possibly easing of interest rate increases. However, strong stock selection more than offset this.

Performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance of the Fund may be lower or higher than the performance quoted. For most recent month-end and quarter-end performance, visit www.gafunds.com or call (800) 915-6566.

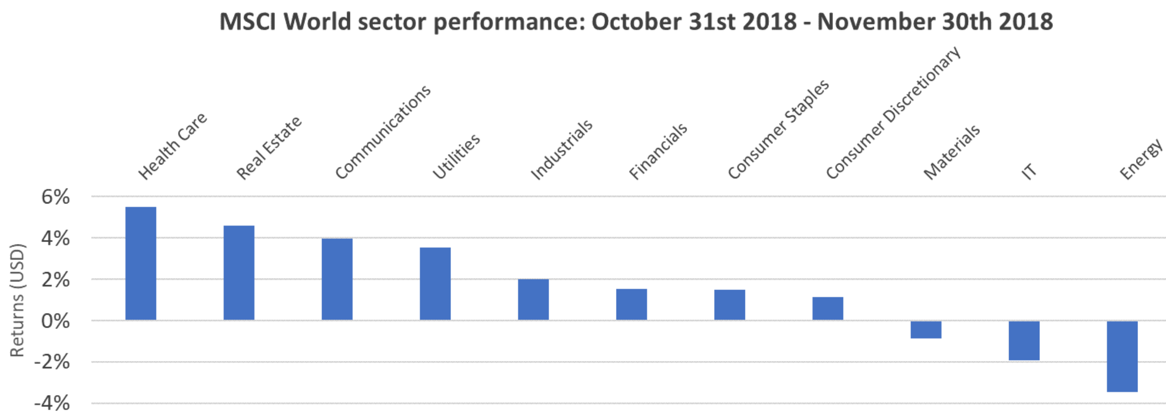

Chart 6. Source: Bloomberg, as of November 30th 2018

Our underweight exposure to health was a slight drag over the month, however, our stock selection in Danaher (up 10.2% in USD), our one health care stock, offset some of the negative contributions. IT, which continued its sell-off, was a positive contribution to the portfolio even with our ~36% overweighting relative to the MSCI World. This reflected strong performances from semiconductor names such as Applied Materials and Lam Research, as well as the exclusion of Apple.

Portfolio update

Individual companies that performed well over the month included Tencent Holdings Ltd (17.11% in USD) and Applied Materials Inc (14.03% in USD).

Tencent 腾讯 APPLIED MATERIALS®

Tencent is the Chinese conglomerate with an ecosystem of businesses from video games and social media platform WeChat, to music streaming and payment services. Tencent posted Q3 profit growth of 31% as the video gaming ban in China was offset by increased revenue from online advertising, mobile payments and cloud services. Tencent's gaming revenue has been falling as a proportion of total revenue over recent quarters as China continues to ban new games from being released. However, Tencent's diverse portfolio of businesses has benefited them greatly, with online advertising rising 47% - mobile app WeChat has over 1bn active users - and a doubling of cloud-service revenues. Having bought Tencent in Q3 after a sell-off of around 35%, we continue to see upside potential from the individual businesses' competitive moats and integration into almost every aspect of the consumer's way of life.

Applied Materials brushed off concerns of weaker than expected guidance from management to produce strong returns as part of the general rebound in semiconductors names. Management reiterated its view of a stronger 1H 2019 compared to 2H 2018, led by growth in foundry/logic segments offsetting some declines in its memory segment. We believe fears surrounding semiconductor cycles could soon slow as global demand for semiconductor chips continues to expand into diverse aspects of life. As of the end of November, Applied

Materials traded on ~10.7x 1 FY PER - a sizable discount to historical valuations - and as such, we believe Applied Materials has strong potential for future re-ratings.

Individual companies that underperformed over the month were NVIDIA Corp (-22.40% in USD) and Catcher Technology Co Ltd (-14.77% in USD).

NVIDIA. CATCHER

Nvidia, the market leading producer of GPU chips (graphics processing units), gave weaker than expected guidance after a collapse in demand for their chips from crypto currency miners. While the slowdown in demand from this segment has been fairly well flagged, what was surprising was the significant build up in inventory which management are now taking quick action to clear. We believe this is short-term noise and does not change our outlook for the company. Indeed, crypto currency has always been a small part of Nvidia's revenues and we are far more excited about the steady cash generation, growth of the gaming business and higher growth potential from data centers and artificial intelligence applications. Despite that, since the end of September the share price halved before starting to recover two weeks ago. We have owned Nvidia for a very long time and our equally weighted portfolio construction methodology has meant that we have been reducing our exposure as the share price has rallied and we have been able to take advantage of recent volatility to rebalance our position and buy more at a considerable discount.

Catcher has suffered from the broader sell-off in Apple supply chain names over fears of weaker Apple product demand. In its recent earnings report, Apple announced it would no longer provide unit sales data going forward and there were also reports of weaker demand for the new iPhone XR, Apple's discounted version of the premium XS, for which Catcher produces the majority of casings for. While the mobile phone casing market is moving away from metal casings – an area Catcher is best known for – and into glass panels, there is still a need for metal structures within mobile devices to house the glass panels. Innovations around better heat dissipating structures and 5G network antennas also present the need for continued premium casings. Catcher is a leader in its industry and has maintained a gross margin of ~40% - significantly above that of its competitors – indicating Catcher's continued competitive advantage.

Thank you for your continued support.

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Performance

as of 11.30.2018 (in USD)	YTD	1 year	3 years annualized	5 years annualized	10 years annualized
Global Innovators, Investor Class[1]	-9.52%	-8.73%	8.77%	8.70%	15.64%
Global Innovators, Institutional Class[2]	-9.31%	-8.51%	9.03%	8.86%	15.72%
MSCI World Net Return	-1.20%	0.14%	8.49%	6.66%	10.87%

as of 09.30.2018 (in USD)	YTD	1 year	3 years annualized	5 years annualized	10 years annualized
Global Innovators, Investor Class[1]	-0.09%	6.15%	16.61%	12.55%	13.13%
Global Innovators, Institutional Class[2]	0.09%	6.41%	16.88%	12.70%	13.21%
MSCI World Net Return	5.43%	11.24%	13.53%	9.28%	8.55%

[1]Investor class (IWIRX) Inception 12.15.1998 | Expense ratio* 1.24% (net); 1.33% (gross)

[2]Institutional class (GINNX) Inception 12.31.2015 | Expense ratio* 0.99% (net); 1.17% (gross)

All returns after 1 year annualized.

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[2]Performance data shown for Global Innovators, Institutional Class (GINNX), prior to its launch date on 12/31/15, uses performance data from the Global Innovators, Investor Class (IWIRX).

*The Advisor has contractually agreed to reimburse expenses (excluding Acquired Fund Fees and Expenses, interest, taxes, dividends on short positions and extraordinary expenses) in order to limit the Fund's Total Annual Operating Expenses to .99% for the Institutional class and 1.24% for the Investor class through June 30, 2019. To the extent that the Advisor absorbs expenses to satisfy this cap, it may recoup a portion or all of such amounts absorbed at any time within three fiscal years after the fiscal year in which such amounts were absorbed, subject to the expense cap in place at the time recoupment is sought, which cannot exceed the expense cap at the time of waiver. The expense limitation agreement may be terminated by the Board of the Fund at any time without penalty upon 60 days' notice.

Mutual fund investing involves risk and loss of principal is possible. Investments in foreign securities involve greater volatility, political, economic and currency risks and differences in accounting methods. These risks are greater for emerging markets countries. The Fund also invests in medium and smaller companies, which will involve additional risks such as limited liquidity and greater volatility. The Fund may invest in derivatives which involves risks different from, and in certain cases, greater than the risks presented by traditional investments.

Securities mentioned are not recommendations to buy or sell any security. Current and future portfolio holdings are subject to risk.

Top 10 holdings for Global Innovators Fund, as of 11/30/18:

1. ANTA Sports Products Ltd	3.50%
2. Facebook Inc	3.44%
3. Eaton Corp PLC	3.41%
4. Cisco Systems Inc	3.41%
5. ABB Ltd	3.38%
6. Continental AG	3.38%
7. Danaher Corp	3.33%
8. Comcast Corp - A Shares	3.33%
9. NVIDIA Corp	3.32%
10. AAC Technologies Holdings Inc	3.31%

For a complete list of holdings for the Global Innovators Fund, please visit https://www.gafunds.com/our-funds/global-innovators-fund.

The Fund's investment objectives, risks, charges and expenses must be considered carefully before investing. The statutory and summary prospectus contains this and other important information about the Fund, and it may be obtained by calling 800-915-6566 or visiting gafunds.com. Read it carefully before investing.

Earnings growth is not representative of the Fund's future performance.

The Purchasing Managers' Index (PMI) is an indicator of economic health for manufacturing and service sectors. The PMI is based on a monthly survey sent to more than 400 companies. The PMI is based on five major survey areas: new orders, inventory levels, production, supplier deliveries and employment.

Price-Earnings (P/E) ratio is a valuation ratio of a company's current share price compared to its per-share earnings. Forward earnings differ from trailing earnings, which is the figure quoted more often, as they are a projection and not a fact.

MSCI World Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets.

The MSCI World Information Technology Index is designed to capture the large and mid cap segments across 23 Developed Markets countries. All securities in the index are classified in the Information Technology sector as per the Global Industry Classification Standard (GICS®).

The Philadelphia Semiconductor Index is a capitalization-weighted index composed of 30 semiconductor companies. The companies in the Index have primary business operations that involve the design, distribution, manufacture and sale of semiconductors.

One cannot invest directly in an index.

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