100 East Wisconsin Avenue, Suite 2200
Milwaukee, Wisconsin 53202
414-226-4545
www.fiduciarymgt.com

FIDUCIARY MANAGEMENT, INC.
Investment Counsel

INVESTMENT STRATEGY OUTLOOK – INTERNATIONAL EQUITY

December 31, 2017

Stock markets across the globe continued their persistent climb in the fourth quarter, with Japan, the UK and Germany posting gains of 8.66%, 4.97%, and 0.69%, respectively.[1] The FMI International portfolios appreciated by approximately 2.9% in the period, falling short of the MSCI EAFE Index advance of 3.66% in local currency (LOC) and 4.23% in U.S. Dollars (USD). The Technology Services, Distribution Services and Communications sectors boosted the strategy's overall performance, while Producer Manufacturing, Commercial Services, and Retail Trade each detracted from the results. Individual stocks were led by Accenture, Ferguson and TE Connectivity, with less favorable outcomes from Smiths Group, Schlumberger and Jardine Strategic. For the full calendar year, the portfolios generated a return of roughly 16.5%, which compares with an MSCI EAFE gain of 15.23% in LOC and 25.03% in USD. Currency hedging and an elevated cash balance weighed heavily on the relative performance, as did an underweight exposure to Japan, which gained 22.22% in LOC.

Admittedly, it's been tough sledding in a world where value investing is out of favor and valuation is an afterthought. Most investors are pleased to wake up to *The Wall Street Journal* reporting that "The vast majority of global stock markets in 2017 have surged either to fresh records or multiyear highs."[2] Though we don't mean to rain on the parade, we are quite concerned about the current state of financial markets. Ground-hugging interest rates and quantitative easing (QE, a.k.a. money printing) have resulted in extreme valuations across public equity and debt markets, private equity, real estate, and fine art. The speculative mania in crypto currencies is in a league of its own. As articulated by Goldman Sachs, the "recent bull market in everything" has led to an "average valuation percentile across equities, bonds and credit" that is "the highest since 1900." They warn that "it has seldom been the case that all assets are expensive at the same time - historical examples include the Roaring 20s and Golden 50s," and that "all good things must come to an end," eventually resulting in a bear market.[3] While many market pundits believe that the rally has no end in sight, we'd go with history and take the other side of that bet. Even with global economic output picking up steam, the pace of growth is still projected to be below historical norms. Unfortunately, the "synchronized" economic recovery is largely being driven by borrowed money, stimulus and QE. Such growth is low-quality and unsustainable. We don't think you can solve a debt crisis (2007-08) by adding more debt, and central bank manipulation can only go so far. Eventually growth and asset valuations will have to stand on their own merit, and we fear that the mounting weight will be too heavy to bear.

On Borrowed Time

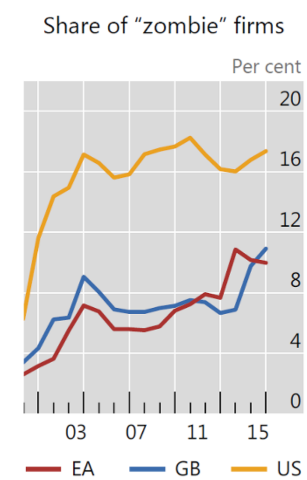
Having seemingly learned very little from the great financial crisis of 2007-08, global debt levels have continued to steadily rise, setting new records in 2017. According to the Institute of International Finance (IIF), the world's total debt bill now stands at a staggering $226 trillion, more than three times (324%) the size of global economic output.[4] Since 2006, debt has increased by more than $80 trillion from a base of about $144 trillion (302% of GDP).[5] So much for all that talk of deleveraging! Quite the opposite has been true: with private sector debt (household and non-financial corporations) at historically high levels, there are increased risks of financial instability. As households and companies have levered up their balance sheets, they are susceptible to rising interest rates, falling real estate prices, and weaker economic activity, among other factors. According to the Organisation for Economic Co-operation and Development (OECD), there has also been a substantial deterioration in credit quality, as exceptionally low interest rates have led to increased risk-taking by bond holders (i.e. negative yields), a weakening of covenants, and an

[1] The following market indexes are being referenced: Japan TOPIX, FTSE All-Share (UK), Germany DAX.
[2] Steven Russolillo. "Stocks Around the Globe Stage Most Widely Shared Rally in Years." *The Wall Street Journal*. November 27, 2017.
[3] Chris Anstey. "Goldman Warns Highest Valuations Since 1900 Mean Pain Is Coming." *Bloomberg.* November 29, 2017.
[4] Marc Jones. "Worldwide debt more than triple economic output as central bank shift looms." *Reuters.* October 25, 2017.
[5] David Scutt. "Global debt has hit an eye-watering $215 trillion." *Business Insider Australia.* April 4, 2017.

expansion of high-risk (non-investment grade) bond issuance. With private sector debt service ratios deteriorating, it could just be a matter of time before the credit cycle comes unglued.[6]

As a byproduct of ultra-low interest rates, we have seen a rapid rise of zombie companies, defined as publicly traded businesses that are ten years old whose *interest expense* exceeds their earnings before interest and taxes (EBIT). As illustrated in the Bank for International Settlements (BIS) chart below, zombie companies now exceed 10% of Euro Area (EA) and Great Britain (GB) firms, and 15% of firms in the United States (US). A proliferation of zombie companies in China has also been well-documented.

Per *Bloomberg*, this "matters greatly for economic growth" as "zombie companies suck workers and capital away from their more productive competitors, as well as from startups." It also weakens the health of bank balance sheets via non-performing loans and increased risk of default. The author cites an OECD study which concludes that "had the proportion of zombie companies been the same as before the [global financial] crisis, productivity growth would have been significantly higher in rich countries."[7] This supports the notion that easy money has been a hindrance to economic growth (we agree), which flies in the face of conventional (central bank) wisdom. In a free market system, businesses are supposed to fail, as it helps an economy become more efficient and innovative, and holds companies accountable for taking excess risks (which is not the case today, thereby creating a moral hazard). While a rising interest rate environment might put a nail in the coffin for some of these zombies, leading to increased financial distress, more normalized interest rates would be beneficial for the long-term health of the economy.



Source: BIS Quarterly Review September 2017

On a more positive note, we are encouraged to see signs that investors are finally starting to pay attention to balance sheets again, after years of overlooking them. Financial engineering has been rampant during the recent bull market, with companies raising debt to do acquisitions and share buybacks, in lieu of organic capital investment. Encouragingly, *Bloomberg* reports that companies with weaker balance sheets have actually underperformed in 2017. Per the analysis, "Cracks in high-yield credit may have only started to emerge, but equity investors have been signaling a growing preference for stronger balance sheets throughout the year […] global stocks [excluding financials] with the lowest debt-to-equity ratios, a measure of balance-sheet strength, are outperforming those with the highest ratios."[8] With greed and complacency dominating investor psyche in recent years, we are excited to see some elements of risk-aversion creep back into the market. Elevated valuations would suggest that we are still in the early innings, but hopefully the pendulum continues to swing our way. With investor fear comes opportunity.

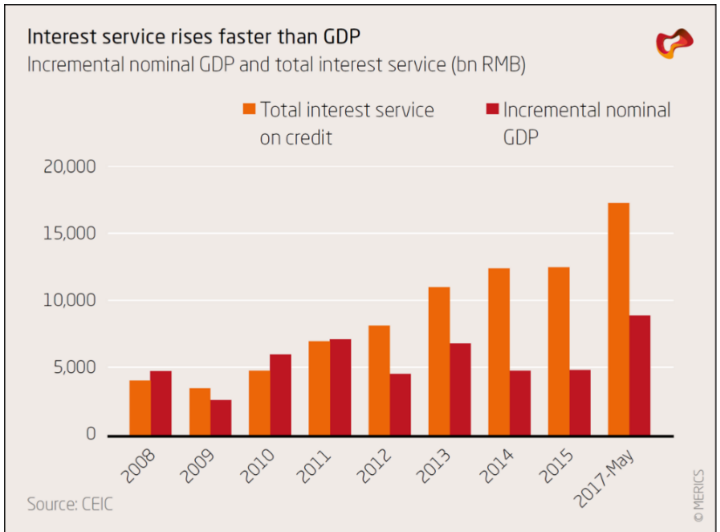
China's Minsky Moment

China remains the biggest swing factor in the world economy, expected to account for 35%+ of GDP growth for 2018-19.[9] The problem is that China has only one playbook, and one play in that playbook: borrow and spend. By May of 2017, debt in China had ballooned to 328% of 2016 nominal GDP, up from 295% at the end of 2015.[10] Despite a shrinking working-age population, apartment buildings continue to spring up across the country, with many sitting empty as a speculative investment or store of value. However, as most homeowners know, real estate structures tend to deteriorate and require continual upkeep. With average property values in China more than tripling between 2000

[6] "Resilience in a time of high debt." Pre-release of the special chapter of the OECD Economic Outlook. November 23, 2017.
[7] Ferdinando Giugliano. "The Financial System's Weak Link: Zombie Firms." *Bloomberg*. September 19, 2017.
[8] Dani Burger and Cormac Mullen. "Stock Market Rings Alarm Bells on Rising Corporate Leverage." *Bloomberg*. November 15, 2017.
[9] Jeff Desjardins. "Half of expected world GDP growth in the next 2 years will come from the US and China." *Visual Capitalist.* June 5, 2017.
[10] Victor Shih, Visiting Fellow, MERICS, Associate Professor, UC San Diego. "Financial Instability in China: Possible Pathways and their likelihood." Mercator Institute for China Studies. October 20, 2017.

and 2015 (and +12.4% in 2016),[11] there is a fear of missing out and an aura of invincibility. In reality, home prices cannot go up forever, especially without a governor on building more units, creating a lack of a scarcity value.

Furthermore, China's massive debt pile is finally starting to catch up with borrowers. According to Victor Shih, Visiting Fellow of Mercator Institute for China Studies, and associate professor at University of California San Diego, China has become a "Ponzi unit," as total interest payments have exceeded incremental nominal GDP growth every year since 2012, and by 8 trillion RMB ($1.2 trillion) in the trailing 12 months through June (see chart to the right). Shih explains, "Since we did not see large-scale defaults in China, the new additional interest burden must have been financed in some way. Most likely, roughly this amount or more was capitalized as new loans, contributing to the rapid rise in total debt." In other words, to service existing interest payments, new credit is required. As it relates to a potential crisis, Shih believes China's vulnerabilities would include the following: household sector crash, shadow banking panic, capital flight or a sudden stop of international credit.[12] Clearly, the status quo is not sustainable.



Source: Victor Shih, Visiting Fellow, MERICS, Associate Professor, UC San Diego. "Financial Instability in China: Possible Pathways and their likelihood." Mercator Institute for China Studies, October 20, 2017.

Anecdotal data points throw additional cold water on China's real estate market. A recent investigative report by *Reuters* claims that "Gravity-defying property prices in China have spawned widespread home-loan fraud." They describe buyers who were caught drawing up three separate purchase agreements for the same property, one that was genuine, one that overstated the value of the property for the bank, and one that understated the value for tax authorities. *Reuters* believes that buyers are using fake documents to secure mortgages across China, and that "these frauds are often committed with the consent and encouragement of other parties to the transactions, including lending brokers, property agents, valuation companies and the banks themselves." They note that these "alleged crimes are rarely punished."[13] Such follies are disturbing to say the least, yet are indicative of an out-of-control housing market.

We find it telling that China's central bank governor Zhou Xiaochuan, who is soon expected to retire, recently warned about a potential "Minsky moment," defined by *Reuters* as "a sudden collapse of asset prices after a long period of growth, sparked by debt or currency pressures."[14] In an extensive article, Zhou penned that latent risks in China are accumulating, including some that are "hidden, complex, sudden, contagious and hazardous."[15] Well that's comforting! Amazingly, in today's era of runaway asset inflation, even central bankers screaming from the rooftops appear to fall on deaf ears.

Asset Valuations: A Rising Tide

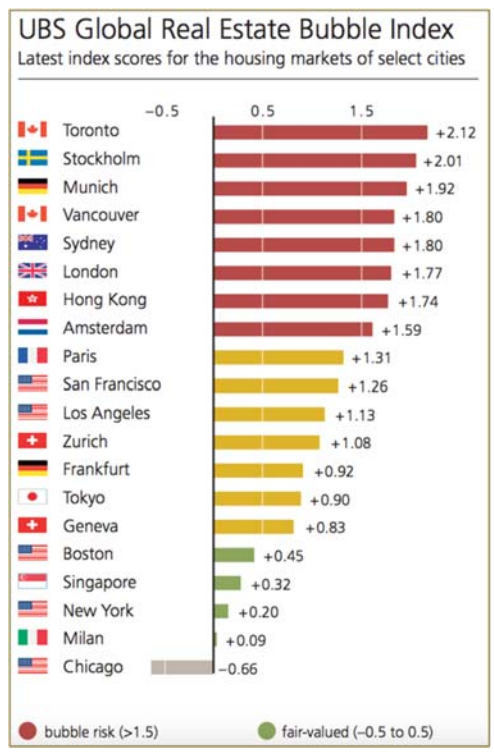
Free money has led to increased speculation, with signposts of excess popping up across asset classes. In the developed markets (excluding the U.S.), public equities are trading at median price-to-earnings (18.1x) and price-to-

[11] Engen Tham, Clare Jim, Yawen Chen. "Hidden peril awaits China's banks as property binge fuels mortgage fraud frenzy." *Reuters.* December 4, 2017.
[12] Shih, "Financial Instability in China."
[13] Engen Tham, Clare Jim, Yawen Chen. "Hidden peril awaits China's banks as property binge fuels mortgage fraud frenzy." *Reuters*. December 4, 2017.
[14] "China's central bank warns against 'Minsky Moment' due to excessive optimism." *Reuters.* October 18, 2017.
[15] "China's Central Bank Chief Warns of 'Sudden, Contagious and Hazardous' Financial Risks." *Bloomberg News.* November 4, 2017.

cash-flow (10.6x) multiples that are 21% and 43% above historical levels, respectively.[16] Unfortunately, for high-quality FMI-style businesses, the valuations are often much higher, trading at least one or two standard deviations above historical averages. Bond markets appear to be levitating, sporting the lowest yields in the history of fixed income. It's hard to fathom that nearly $9.7 trillion of negative-yielding sovereign debt is guaranteed to lose money if held to maturity.[17] As reported by *Almost Daily Grant's (ADG)*, in November we saw the first BBB credit in Europe (two notches above junk) place debt at a negative yield. As detailed by the author, "France's Veolia Environnement S.A. (VIE on the Euronext), a Paris-based resource/waste management and utility company, issued €500 million in three year bonds priced to yield negative 0.026%. Even better: Investor demand for the Veolia issue was such that the offering was oversubscribed by more than 4:1. Said another way, three out of four investors who wished to lose money on a yield-to-maturity basis were left disappointed."[18] In Japan, the story is much of the same, with Japan Finance Corp. pricing 2-year notes at a yield of 0.0000027% (also oversubscribed).[19] Bond investors are lining up in droves for *return-free risk*, which does not make sense.

With money printing presses running full-tilt, it's no surprise that investors are turning to hard assets as a potential store of value. In November, Christie's shattered the prior auction record for a piece of fine art ($179.4 million for a Pablo Picasso painting in 2015), selling Leonardo da Vinci's "Salvator Mundi" painting for $450.3 million! The pre-sale estimate for da Vinci's masterpiece was $100 million, as the prior record for an Old Master painting was $76.5 million.[20] Not too shabby if you were the seller! For the (un)lucky buyer, we wouldn't be surprised to see this painting sell at a fraction of the cost if it were to come back to market in the years to come. Spending nearly half a billion dollars on an Old Master painting might seem fashionable today. A decade from now? Only time will tell.

Speaking of hard assets, we have written extensively in prior letters about the potential for a real estate bubble in Australia, Canada and parts of Europe. This remains a significant concern. In a more recent data point, UBS published an annual real estate bubble index, where they attempt to identify cities at risk. Signs of a housing bubble "include a decoupling of prices from local incomes and rents, and distortions of the real economy, such as excessive lending and construction activity." As illustrated in the nearby chart, UBS has identified eight global cities with bubble risk (China was not included in the study). The author argues that, "The bubble risk in select world cities has increased significantly over the last five years. Real house prices of those metropolises within the bubble-risk zone have climbed by almost 50% on average since 2011" [... as] "real incomes and rents have climbed by less than 10%. Buying an average apartment typically exceeds the financial means of even highly skilled workers in those cities."[21] This dichotomy is not sustainable, and may spell trouble in the years to come. Home prices have started to cool down in Australia and Canada in the fourth quarter. With significant leverage tied to these real estate markets, the downside risks are substantial.



Though rising tides have lifted most boats, the speculative bubble we are witnessing in crypto currencies is quite stunning. Rarely in history have we seen such a parabolic move, with perhaps the tulip mania from 1634-37 as the only exception. At the end of 2016 (December 25), according to coinmarketcap.com, crypto currencies collectively had a market capitalization of $16.1

[16] The Leuthold Group.
[17] Reuters staff. "Fitch: $9.7T of Neg Yielding Debt Despite Monetary Normalization." December 11, 2017.
[18] "World's smallest Veolin." *Almost Daily Grant's.* November 17, 2017.
[19] Issei Hazama. "Japanese Demand for 0.0000027% Bond Shows Market Distortion." *Bloomberg.* November 1, 2017.
[20] Katya Kazakina. "Da Vinci's Christ Portrait Shatters Art Record With $450 Million Sale." *Bloomberg.* November 15, 2017.
[21] UBS Global Real Estate Bubble Index. Chief Investment Office Americas, WM. September 2017.

billion, with Bitcoin trading at $879. At that time, there were 644 different crypto currencies available for purchase. By the end of 2017, the number of crypto currencies had more than doubled to 1,335, resulting in a market capitalization of $572.5 billion, with Bitcoin finishing the year at $13,170! Over half a trillion dollars of wealth was created virtually out of thin air! For something with no real tangible intrinsic value, this is truly remarkable (and alarming). How the 2017 crypto currency-mania can be viewed as anything but reckless speculation, and one of the greatest bubbles in world history, is beyond our comprehension. This is not likely to end well.

While it's not clear which straw will break the camel's back, there are plenty of viable candidates competing for the honor. Now more than ever, a focus on downside protection is of utmost importance.

A Tough Stretch For Value

Value investing has faced one of the most challenging periods in its long, storied history. Across the board, value has underperformed growth for over a decade. As illustrated in the table to the right, the gap has been most pronounced over the last 12 months, with growth outperforming by over 7%. This is indicative of the speculative, momentum-driven market that we've had for quite some time. Bank of America aptly summarizes the current state of affairs: "Investors' risk-taking has hit an all-time high. A record high percentage of investors say equities are overvalued yet cash levels are simultaneously falling, an indicator of irrational exuberance."[22] Keeping pace with the benchmark is all that seems to matter, while the underlying risk associated with achieving those returns is a secondary consideration (if at all). The move from active to passive investing has added fuel, as passive index funds/ETFs purchase equities (and fixed income) without regard for valuation. Inevitably, there will be a time when these same passive vehicles are selling indiscriminately, but for most market participants, that concern is for another day.

Annualized Total Returns Through 12/29/17

	1 Yr.	3 Yr.	5 Yr.	10 Yr.
MSCI EAFE Value Index	22.2%	7.1%	7.7%	1.9%
MSCI EAFE Growth Index	29.3%	9.6%	9.2%	3.1%
Value Performance	*-7.1%*	*-2.5%*	*-1.5%*	*-1.2%*

Source: Bloomberg

With each passing quarter, we are fascinated to see an increasing number of well-respected value investors raise the white flag, questioning value investing's efficacy in the modern world. We view this capitulation as a contrarian indicator; a sign that we might finally be nearing the end of the road. We observed the same phenomenon during the tech bubble in the late 1990s and early 2000s, leading right up to the market crash. Fortunately for our clients, we have no intention of changing our stripes and will remain true to our core value discipline. We are confident that over the long-run, we and our clients will be rewarded for our patience and conservatism.

Some might argue that we are too cautious in our assessment of the economic and investment landscape. If that turns out to be the case, we will likely underperform our more aggressive competitors. Today, our biggest concern is valuation. If valuations were closer to normal, we would likely be a bit more constructive on worldwide economies. As it stands, extreme valuations leave almost no margin for error. Market expectations are too high, and nearly everything needs to go right for investments to work. Historically, we tend to be more cautious the more investors are optimistic. Since our firm's inception, this philosophy has served our clients well. We don't believe fundamental emotions that drive investment behavior will change; greed will transition to fear just as it always has. When it does, we'll be ready.

Thank you for your confidence in Fiduciary Management, Inc.

[22] Adam Samson. "BofA raises fears over 'irrational exuberance.'" *Financial Times.* November 14, 2017.

Fiduciary Management Inc.
International Equity Composite
12/31/2010 - 09/30/2017

Year	Total Return Gross of Fees %	Total Return Net of Fees %	*Benchmark Return %	Number of Portfolios	Dispersion %	Three Year Ex-Post Standard Deviation Composite	Three Year Ex-Post Standard Deviation *Benchmark	Total Composite Assets End of Period ($ millions)	Total Firm Assets End of Period ($ millions)	Percentage of Firm Assets %
2011	-0.78	-1.52	-12.15	1	0.00	n/a	n/a	$ 16.7	$ 12,273.6	0.14%
2012	19.35	18.46	17.31	1	0.00	n/a	n/a	$ 76.3	$ 15,253.5	0.50%
2013	25.89	24.95	26.93	1	0.00	9.78	12.22	$ 165.8	$ 19,705.3	0.84%
2014	5.66	4.87	5.92	1	0.00	7.49	10.33	$ 771.6	$ 21,001.1	3.67%
2015	4.24	3.46	5.33	2	0.00	8.14	11.73	$ 2,832.9	$ 21,042.9	13.46%
2016	11.04	10.23	5.34	3	0.38	7.39	11.53	$ 5,946.2	$ 22,626.7	26.28%
Q1 2017	5.94	5.75	4.71	3	0.05	7.16	11.23	$ 7,376.1	$ 24,541.9	30.06%
Q2 2017	3.74	3.56	2.71	3	0.02	7.31	11.25	$ 8,132.7	$ 24,881.5	32.69%
Q3 2017	3.00	2.82	3.36	3	0.03	7.06	11.30	$ 8,147.9	$ 25,072.9	32.50%

*MSCI EAFE Net Local Index®

Returns reflect the reinvestment of dividends and other earnings.
The above table reflects past performance. Past performance does not guarantee future results. A client's investment return may be lower or higher than the performance shown above. Clients may suffer an investment loss.

Fiduciary Management, Incorporated (FMI) claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. FMI has been independently verified for the periods 12/31/1993 - 09/30/2017. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. The International Equity Composite has been examined for the periods 12/31/2010-09/30/2017. The verification and performance examination reports are available upon request. Benchmark returns are not covered by the report of independent verifiers.

FMI was founded in 1980 and is an independent investment counseling firm registered with the SEC and the State of Wisconsin. The firm manages over $25.1 billion in assets of pension and profit sharing trusts, mutual funds, Taft-Hartley funds, insurance company portfolios, endowments and personal trusts. The firm includes both institutional and mutual fund business. Although the firm has participated in wrap programs, it is a separate and distinct business, and is excluded from firm-wide assets.

The International Equity Composite was created on December 31, 2010. This composite invests mainly in a limited number (usually between 25-40) of large capitalization (namely, companies with more than $5 billion market capitalization) foreign companies.

The International Equity Composite reflects time-weighted and asset-weighted returns for all discretionary accounts. All returns are calculated using United States Dollars and are based on monthly valuations using trade date accounting. All accounts in this composite are fee paying. Gross of fees returns are calculated gross of management fees, gross of custodial fees, gross of withholding taxes and net of transaction costs. Net of fees returns are calculated net of actual management fees and transaction costs and gross of custodial fees and withholding taxes. Dispersion is calculated using the equal weighted standard deviation of all accounts in the composite for the entire period. As of 12/31/2011, the trailing three year annualized ex-post standard deviation for the Composite and Benchmark are required to be stated per GIPS®. For the periods 2011-2012, the information is not available for the International Equity Composite.

Currently, the advisory fee structure for the International Equity Composite portfolios is as follows:

Up to $25,000,000	0.70%
$25,000,001-$50,000,000	0.65%
$50,000,001-$100,000,000	0.60%
$100,000,001 and above	0.55%

The firm generally requires a minimum of $25 million in assets to establish a discretionary account. The minimum account sizes do not apply to new accounts for which there is a corporate, family, or other substantial relationship to existing accounts. In addition, the firm reserves the right to waive the minimum account size and minimum annual fee under certain circumstances. A complete list and description of all firm composites is available upon request. Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

The MSCI EAFE Net Local Index® is a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the US & Canada. The MSCI EAFE Net Local Index consists of the following 21 developed market country indices: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, and the United Kingdom. It is reported in local currency and net of hedges. The International Equity composite uses the MSCI EAFE Net Local Index® as its primary index comparison.