GREENLEAF TRUST

Perspectives

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Chairman, Greenleaf Trust

Economic Commentary

"It's appropriate," Janet Yellen said, "for the Fed to gradually and cautiously increase our overnight interest rate over time, and probably in the coming months such a move would be appropriate." The comment by Fed Chair Yellen was delivered at a conference hosted by Harvard University on May 28th and was in pretty stark contrast to her March 29th concerns that global weakness reasoned that raising rates in the near term was problematic. Why the shift in tone, and what can then be expected at the June 14th–15th scheduled meeting of the Federal Open Market Committee (FOMC)?

The reasons can generally be found in the economic indicators released in late April, which is normally a heavy data release month. Let's start with consumer spending. US consumer spending recorded the largest increase in more than six years in the April report, as purchases of automobiles and new homes soared. While the slide in consumer confidence is in contrast to the actual spending increase, there are other correlating data pieces that support the notion that there will be a continuation of the trend that is in place over the past few months. Steady employment, modest wage growth and housing price increases that have returned the national average to 2008 levels all suggest that there may be an increase in the personal wealth accelerant that allows for the increased consumer spending. Last month's 1.0% increase in consumer spending was the largest increase since August of 2009. Clearly, the consumer is leading the charge, as business capital investment remained slightly down from the prior month and the PMI (Purchasing Managers' Index) remained at 49.1%, a level normally thought of as recessionary. As we have stated previously, when we strip energy-related industries from both of these indexes, they are much stronger.

Oil production was flat in April, and the rise to $50-per-barrel crude oil prices seems to have stemmed the decline in production, and while employment in these sectors hasn't increased yet, job losses have slowed. OPEC is currently meeting at this writing, and little change is expected in the agreement on production levels. While most members of OPEC want to reduce production to restore prices, Saudi Arabia continues to

Commentary, continued

press for production at current levels. Gasoline inventories, as well as refinery capacity, suggest that we can expect to see some increase in pump prices this summer. The consumer didn't transfer pump savings to discretionary spending during the decline in energy prices, but rather transferred the differential to savings and limited debt reduction and, thus, we don't expect modestly rising gas prices to curb consumer spending in the months ahead.

New home sales had a rocket ship month in April, to a seasonally adjusted annual rate of 619,000, according to data released May 24th by the US Census Bureau and Department of Urban Development. This increase represents a 16.6% increase above the March rate of 531,000 and is 22.8% above the April 2015 rate of 500,000. Additionally, the supply of new homes available for sale declined by 14.5% to 4.7 months from the previous 5.5 months, suggesting future sales increase potential.

"… we don't expect modestly rising gas prices to curb consumer spending in the months ahead."

The Fed has also taken note of a slight uptick in inflation. Remember the Fed has often repeated its two mandates which are full employment (mid 4% range) and 2% inflation as well as a third goal but not mandate of GDP growth in excess of inflation. Where the Fed does not want to get to is an environment where interest rates are chasing a huge gap between inflation and rates. An uptick to 1.1% inflation is not alarming and in fact tells the Fed that their accommodative stance on rates is having an accelerating impact on the economy. Projections for a 1.8% 2nd quarter GDP growth rate, if achieved, would further bolster that confirmation.

Our attempt to feel the pulse of our economy is not significantly different than what the Fed attempts to monitor and read. They gather significant real time data and analyze the throughput on that data from each of their regional Fed Banks. They also utilize significant anecdotal responses to surveys from key industrial sectors within those regions. Theirs, as well as ours, are 86 indicators of data over ten components such as construction, employment, inflation, trade, orders, consumption and distribution, production, investment and others that include confidence surveys and ratios of leading to lagging indicators. Month over month or release date over release date is less relevant data, but year over year and continuing or reversing trend data becomes much more telling. So, when we examine the 86 indicators from those ten categories, what we can say is that the year over year and release date over release date data looks, in the main, healthy. Those who point to production and orders as well as the PMI being in decline year over year are right to do so, but must also acknowledge that those indicators are heavily influenced by the energy sector's dismal results during the last 18 months.

From the perspective of what drives over 70% of our GDP growth rate, the consumer, Chair Yellen and the Fed Governors see stable employment, some wage growth, an increase in hours worked, increased savings and increased spending. They also see a healthier housing market, both new and existing sales that includes price increases to pre-recession levels. Those who assemble surveys on prospects of a June rate hike of 25 bps forecast a 61% chance that the rate hike is approved by the Fed Governors. Given the data that we see, the rate hike seems likely. What are the implications post rate hike announcement?

"From the perspective of… the consumer, Chair Yellen and the Fed Governors see stable employment, some wage growth, an increase in hours worked, increased savings and increased spending."

The rate hike will translate immediately to all non-fixed lending, as banks who are now charged for their borrowing from the Fed will pass it on to their customers. It is customary for banks to expand the rate hikes as they occur to increase their spread and thus a 25 bps hike by the Fed may translate into 27 bps in non-fixed lending to bank customers. Two rate hikes in 2016 that total 50 bps to the banks could very well translate to 55 bps to the customer. Interest rate hikes are an expense and they reduce profits for most sectors as debt coverage becomes more expensive and, thus, pressures on profitability will increase. Has the equity market priced the profitability pressure into current valuations? Perhaps; however, current valuations would suggest multiples are on the upper side of fair value. The bullish side of rate hikes is centered around the notion that the Fed raises rates when they see evidence of a growing economy, and a growing economy is therefore good for earnings. The bears will weigh in on the already compressed profits of the S&P 500, and suggest lower profits ahead as a result of higher interest rates. Both sides are too general in their arguments. Excepting energy, S&P 500 profits met or exceeded Q2 earnings expectations, and corporate balance sheets are healthier today than they were before the recession began. The summer months can be volatile as trading volume declines. On the surface the rate hike should be a non-event, but increased summer volatility should not be unexpected. There will be a great deal of scrutiny on the FOMC meeting notes, which are essentially a transcript of the Fed Governors comments and arguments, as those will provide a good deal of color on the velocity of change in future rate hikes.

Michael F. Odar, CFA
President

Purposeful Growth

When a new teammate starts their employment at Greenleaf Trust they go through a comprehensive on-boarding process. The objective is to immediately have them experience our culture, gain familiarity with the entire company, and to start building relationships with their new teammates. Part of that on-boarding process is a meeting with me to learn more about our mission, vision, and strategy. During our time together, we spend time discussing an integral part of our long-term strategy, which is purposeful growth. As I eagerly await this discussion with our 100th new teammate this month, I thought elaborating a little more about what we mean by purposeful growth was appropriate.

The best way to describe the spirit of what we mean is to take you back 17 years when I was a Junior Research Analyst at Greenleaf Asset Management. In conducting research on new companies to add to clients' individual equity portfolios, I would on occasion get the opportunity to speak directly with the president of a company. The question that I would always ask them was what was their biggest nightmare? As you can imagine, the answers varied by company and industry, but essentially boiled down to disappointing their customers. When I ask myself that same question, my greatest fear is that a client feels as though they have become less important as we have grown over the years. If we grow purposefully, all our clients will feel more and more important over time.

"If we grow purposefully, all our clients will feel more and more important over time."

We are not, and never have been, in business to simply grow the top or bottom line. We are in business to provide holistic wealth management and fiduciary services to our clients from generation to generation.

Purposeful growth is expanding the breadth and depth of our team for our clients. Hiring, to us, means adding one more to our team that is better than our best. We add talented teammates with diverse backgrounds to raise the bar on the level of service we provide, broaden our knowledge, and build on our technical capabilities in order to benefit all clients.

Purposeful growth is expanding our geographic footprint to be closer to our clients. It is important to us to be a part of the community we serve. Our new office in Grand Rapids will allow us to serve a growing contingent of clients in that community from that community.

Purposeful growth is expanding the menu of sophisticated tools and strategies we use with clients. Our alternative investment platform provides clients appropriate access to absolute return, private equity, real estate, and alternative credit investment vehicles which can help us to optimize risk-adjusted returns or meet more specific client portfolio objectives.

Finally, purposeful growth allows us to remain independent and serve our clients from generation to generation.

Pets — How to Protect Your Furry Friend

Katherine M. Szymanski, J.D.
Team Service Coordinator II

Have you ever wondered what happens to pets after their owner dies? Many pet owners think of their pets as family members and would be devastated if their beloved pet was not cared for when the owner is gone. Unfortunately, for one reason or another, family members and friends are often not able to take in a loved one's pet and absorb the cost of pet ownership. In Michigan, there are ways to pre-plan for a pet's long term care in the event their owner passes: (1) a provision within the owner's will for the pet's care or (2) a revocable pet trust.

Before exploring both planning options, it is important to note that in Michigan animals are legally considered personal property, which means that they cannot be named as the beneficiaries of a decedent's estate. With no planning or specific bequest, a pet will be distributed to the decedent's next of kin as determined by the state's inheritance laws.

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Wills

Planning for a pet by will is relatively simple. A short provision can be included within the will that names a specific person to care for your pet. That is enough to transfer pet ownership to that named individual. However, there is one major setback to this method: probate. All wills must be admitted to probate; therefore, there could be a substantial delay in the transfer of the pet to the designated person for its care. Nor does such a provision address the costs incurred to care for the animal pending probate. The will simply formally transfers title of the pet, along with the expenses for care.

Trusts

In 2010, the Michigan legislature enacted a statute which states "a trust for the care of a designated domestic or pet animal is valid. The trust terminates when no living animal is covered by the trust." Additionally, the statute specifies that "no portion of the principal or income of a trust may be converted to the use of the trustee or to a use other than for the trust's purpose or for the benefit of a covered animal." It is essential to clearly identify the pet held in the trust, and also to only transfer to the trusts enough money to care for the companion animal, considering its age and health. Probate courts possess the authority to reduce the amount of what is considered surplus money held in the trust and to distribute the surplus according to the terms of the estate planning documents.

Many of these pet trusts contain the same provisions as traditional trusts. Such provisions can be drafted as broadly (giving the trustee all discretion) or as specific as the pet owner desires. Some things to consider when thinking about a pet trust and setting aside funds for the pet's care include: residence

Pets, continued

of the pet(s), compensation of the caretaker(s), vet care for the animal(s), the decision to euthanize, the level of care for the pet(s), appointing funds to the trust, trust protectors, and the taxes of the trust. Often, pet trustees will appoint someone other than themselves as a designated caretaker and distribute funds to that person as expenses are incurred. Let us address some of these topics.

- Residence: It is generally assumed that the pet will reside somewhere other than the dwelling of their owner; however, that is not always the case. Some pet owners desire the caretaker to live in their home with their companion animal. This, of course, requires several other considerations including utility payments and tax payments on the real property. Additionally, if there is more than one pet, the decision needs to be made whether to keep them together in one residence, or use separate homes and caretakers.
- Compensation: In most traditional estate planning, trustees are afforded the ability to charge a reasonable fee for their services to administer the trust. This holds true with pet trusts as well. How is the chosen caretaker compensated? There could be an annual fee paid to the caretaker as well as the trustee, or some other compensation arrangement could be reached.
- Vet care: How often will the animal be taken to the vet? The trust can also address things like medication decisions, surgery expenses, changing providers, and when to not pursue further care for an animal.
- Euthanasia: These provisions generally speak to both when to euthanize a pet as well as final disposition of the pet's remains.
- Standard of care: Specific to each pet is its grooming needs, food selection, medications and daily exercise needs. Such provisions also include things such as not boarding an animal. This is where pet owners can describe what level of care beyond basic needs they desire for their pet. Often, a letter of direction is incorporated into the trust for greater detailed direction to the trustee and caretaker.
- Funding of the trust: Like other methods of estate planning, a pet trust can be funded during the lifetime of the pet owner or after death. If post death, non-probate assets such as life insurance can be utilized as the funding source. Again, special attention should be given to the amount of assets placed into the trust for the animal's lifetime care.
- Trust Protectors: This is a person named in the trust in a supervisory role. The trust protector can possess the authority to "check in" on the caretakers and the trustee, to make sure everything is administered in accordance with the owner's wishes. Often they are able to remove the trustee or caretaker, or change where the pet is maintained.
- Taxes: Pet trusts are subject to the same income tax rules as other trusts—and there are no charitable deductions available, even if a charity is

"Some friends and family may be great caretakers for a pet but they may not do well dealing with the financial responsibilities involved with administering the pet trust."

designated to take the balance of the trust's assets on the pet's death.

The timing of pet trusts is set by statute and can only be administered for up to twenty-one years. This statutory duration seems like enough time for most pets, but it may not be enough for unique pets with much longer lifespans such as parrots, horses, and turtles. Once the pet is deceased, the remainder of the trust will be distributed to the designated remainder beneficiaries.

It is important to choose the right person to care for your companion animal after your death. Some friends and family may be great caretakers for a pet but they may not do well dealing with the financial responsibilities involved with administering the pet trust. Additionally, talk to potential successor pet owners or caretakers beforehand to confirm that they are both willing and able to care for a new pet. Naming a couple alternative trustees and caregivers for the pet is always a good idea. Furthermore, a shelter or animal welfare sanctuary should be named as a last resort in case none of the caregivers are able to take in the animal when the time comes.

If we tend to treat our pets as members of our family, we need to consider what will happen when we are no longer around to assume their welfare and needs are met. They deserve to be treated more than just items of personal property.

The Role of Municipal Bonds

Mark A. Jackson, CFA
Wealth Management Advisor

You have filed your 2015 tax returns and paid tax on the interest income that you earned. You conclude that you could increase your after-tax investment income by owning municipal bonds. Your team at Greenleaf Trust works to show you the impact of using municipal bonds within your fixed income portfolio. In addition, we apply the same rigorous research process to the selection of municipal issuers that we use for the other investments that we select for our clients.

Municipal bonds are debt obligations issued by states, local municipalities, such as a county, city, a school district or a publicly-owned entity, such as an airport. The municipal bond may be a general obligation of the issuer and secured by the full taxing power of the issuer. Or it may be a revenue bond and secured by the specific revenues of a project or entity.

A section of the Internal Revenue Code exempts the receipt of gross income on most, but not all, types of municipal securities from federal taxation. If the taxpayer is also a resident of the state in which the bond is issued, the bond may also be exempt from state and local taxes.

There are, however, qualifiers to these definitions, which are beyond the scope of this article and may require the advice of your accountant

Municipal Bonds, continued

and your Greenleaf Trust team. Here are broad considerations to owning municipal bonds:

- Capital gains when selling municipals are not tax exempt
- Bonds purchased at premiums or discounts have tax reporting rules
- Tax exempt income may impact your tax on Social Security benefits
- Margin interest deductions may be impacted if you have tax exempt income
- The Medicare Contribution tax on investment income considers tax exempt income
- Private activity municipal bond income may be included in taxable income if you are subject to the alternative minimum tax (AMT)

Consistent with the thorough research process that our Research team uses for equities, mutual funds and corporate bonds, we evaluate the issuers of municipal bonds that we acquire for our clients, to determine the ability and willingness of an issuer to meet its interest and debt repayment obligations. Characteristics of the municipal market include:

- A wide variety of issuers, with over 90,000 issuers nationally
- Different accounting rules than for corporate issuers
- Less timely financial reporting
- Bond specific credit enhancements

"...[the IRS] exempts the receipt of gross income on most, but not all, types of municipal securities from federal taxation."

Now for some math. We will assume that you have $100,000 to invest in bonds maturing in 2, 5 and 10 years, that you are a Michigan taxpayer and in the 28% marginal federal tax bracket. Similar to high yield or below investment grade rated corporate bonds, there are high yield municipal bonds. We do not simply look for the highest yield available. We include Treasury securities since the interest is not subject to state taxation. State taxes paid may be a deduction on your federal tax return and lower the effective tax on your investment income, but for simplicity we are ignoring this tax calculation.

Here are the pre-tax yields that are currently available:

	US Treasury	Corporate	Michigan Municipals	Out-of-State Municipals
2 Year Maturity	.75%	1.22%	0.68%	0.64%
5 Year Maturity	1.23%	1.95%	1.04%	0.96%
10 year Maturity	1.79%	2.80%	1.82%	1.58%

Applying the tax rates described above leads to these after-tax yields:

	US Treasury	Corporate	Michigan Municipals	Out-of-State Municipals
2 Year Maturity	.54%	.83%	0.68%	0.61%
5 Year Maturity	.89%	1.32%	1.04%	0.92%
10 year Maturity	1.29%	1.90%	1.82%	1.53%

What are the potential implications of these after tax yields? First, even if Michigan municipals offer an after-tax yield advantage, for diversification, we would generally target one-third of a municipal bond portfolio in Michigan municipals, diversified across issuers and types of credits, for example, general obligation and revenue bonds.

For the $100,000 that you are investing in a 2 year bond, the corporate has the highest after-tax return, returning $830 per year, after tax, versus $680 per year for the Michigan municipal. For shorter maturity investments in a fully taxable account, we may favor high quality corporate bonds for their higher after tax return.

Even in 5 years, the corporate bond has an after tax return of $1,320 per year versus $1,040 on the Michigan municipal and $920 for the out-of-state municipal. The after tax return on the Treasury is $890 per year, which is below the corporate bond but not much different than the after tax yield on the municipal. So, if the portfolio decision were a municipal or a Treasury, we might select the Treasury since the implied credit quality is higher.

In 10 years, the after tax return on the corporate is $1,900 per year versus $1,820 per year for the municipal. Even if those numbers were reversed and the Michigan municipal had the slightly higher yield, we might still favor the corporate. If your tax rate is lower than your original projection, we want to own the security with an after-tax return that compensates you for potential changes in your ability to use tax exempt income.

These pre-tax and after-tax yields are a snapshot from today. General interest rate levels change and the yields available on corporates and municipals relative to each other and US Treasuries change as well. Different tax rates also lead to different conclusions. However, if we are building a portfolio from cash today or if we have cash to invest, favoring taxable securities might lead to a higher level of after tax investment income. This is not always obvious when someone asks: why don't you buy municipal bonds?

As always, please reach out to your Greenleaf Trust team if you would like to discuss the role of municipals in your portfolio.

"...if we are building a portfolio from cash today or if we have cash to invest, favoring taxable securities might lead to a higher level of after tax investment income."

Christina E. Sharp
Retirement Plan
Client Services Specialist

Retirement Readiness

What Plan Sponsors Can Do to Help Employees Reach Tangible Retirement Goals

Many employers are asking what they can do to help their employees prepare for a financially secure retirement. Plan sponsors can take steps to improve their plan design, such as adding automatic features. Employers should ensure they have a diverse yet simple line-up of investment options, which is already the case for all Greenleaf Trust retirement plan clients. Furthermore, employers are realizing that education and communication is key to their employees' understanding of the retirement plan and making informed savings decisions. Below are some areas plan sponsors may review in relation to their plan to identify potential changes to improve employee retirement readiness.

> "... employers are realizing that education and communication is key to their employees' understanding of the retirement plan, and making informed savings decisions."

Eligibility

Allow employees to begin saving in the retirement plan immediately. Upon hire, employees are signing up for benefits, and a delay in eligibility may lead to the employee not making time to, or forgetting to, enroll into the retirement benefit in the future. In addition to employee contribution eligibility, consider offering the employer contribution immediately upon hire to make the benefit more attractive to the employee.

Provide an Employer Contribution

It is recommended on average that participants save 12-15% annually to adequately build a retirement account. Employer contributions help improve employees' retirement readiness. For example, if an employee saves 9% and the employer offers a matching program such as 50% on the dollar up to 6% of employee contributions (total 3% employer contribution), then there is a total of 12% contributed to the participant account annually.

Employer contributions are "free money" for employees. An employer could change their match formula to entice their employees to raise their contribution rates. If the above match formula was changed to 25% on the dollar up to 12%, the potential employer contribution expense remains the same. If the employee raises their contribution amount to 12% to take full advantage of the match, and the employer offers the same 3%, now there is a total of 15% contributed to the participant account annually.

Reducing or eliminating vesting schedule

Rather than requiring employees to return a portion of employer contributions upon termination prior to a certain length of time, consider eliminating the employer contribution vesting schedule. If there is a six year vesting schedule imposed on employer contributions, it could be reduced to a three year vesting schedule.

Automatic Savings Features

Retirement plans that have the auto-enrollment feature usually have participation rates of 90% or greater. When establishing the default deferral rate it should at least maximize the match, if applicable.

If the plan presently has auto-enrollment, perhaps increasing the default deferral rate would help. Research has shown the popular 3% default rate has decreased the average savings rate from 7.9% without auto-enrollment to 6.6% in plans with auto-enrollment. If the employer has established an automatic enrollment rate of 3%, employees may mistakenly believe the employer has established an adequate savings rate, and too many employees do not increase this contribution rate.

A plan sponsor can also provide the automatic escalation feature where the contribution rate is increased, typically 1%, on an annual basis to an established top end rate. This gradually moves the employee to a more meaningful retirement savings rate. Employees always have the option to opt out or select a lower contribution rate.

Eliminate Loans

Loans detract from a participant's retirement savings. When an employee takes a loan from their retirement plan, the money is not invested in the market. When the employee pays back the loan, they are paying the principal plus interest with after tax dollars; and then upon withdrawals in retirement they will be taxed on this money again. If the employee stops payment on the loan, the loan will go into default leading to the participant paying taxes on the outstanding loan amount and, if younger than 59½, an early withdrawal fee. Retirement plans are not required to offer loans, and the retirement savings leakage offers a compelling reason to eliminate the loan feature.

Mutual Fund Investment Line-up

It is important the investment menu design assures the proper mix of investment choices, as well as not be too complex and offer too many choices, which can lead to participant inertia. Each Greenleaf Trust client menu offers funds covering multiple asset classes for participants, who wish to build their own portfolio, to appropriately diversify their investments. Additionally, there are five investment models (Aggressive, Moderately Aggressive, Balanced, Moderately Conservative and Conservative) available for participants to select after identifying an investment strategy approach that best meets their needs, and Target Date Retirement funds.

None of the mutual funds offered have load or commission fees, and the fund's expense ratio must be reasonable and below average for the fund category. On a continual basis, due diligence is performed to identify and move participants to lower the share classes of mutual funds when available.

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Retirement Readiness, continued

"Offering participants the opportunity to meet individually to have their account elections reviewed will make them feel more comfortable and confident..."

Schedule and Encourage Participant Education Meetings

It is easy for employees to get caught up in the day-to-day demands of life, and not set aside time to plan for the future. On-site education meetings provide employees the opportunity to understand plan benefits, and help to engage participants to utilize tools to calculate their retirement readiness and take action to increase savings. Education meetings provide information to help participants not feel overwhelmed with decisions, and the recognition that small increases in savings leads to a more secure future through the power of compounding of savings over time.

Offer Individual Consultations

Participants may have questions they do not want to ask in an educational meeting session in front of others, and may not know all the questions to ask. Offering participants the opportunity to meet individually to have their account elections reviewed will make them feel more comfortable and confident in choosing their contribution amount and investment option elections. Employees may also receive personalized support to evaluate their retirement readiness through projections of their monthly retirement income based on current savings and optional saving increases.

If you wish to discuss any of the suggestions above to help your employees get on and stay on track for a financially secure retirement, contact the Retirement Plan Division.

Dissecting the FANG Stocks

Michael A. Storms, CFA
Senior Research Analyst

There has been a lot of headline news referencing the "FANG" stocks over the last twelve months. This acronym was coined by CNBC's Jim Cramer, who gets a lot of headline coverage in the news. The FANG acronym stands for four stocks including: (i) Facebook, (ii) Amazon, (iii) Netflix, and (iv) Google (recently changed name to Alphabet). Given the strong publicity and performance of these high-growth technology companies, we thought it would be helpful to break down these companies and discuss how these stocks fit our strategy and process.

Before digging into these companies, it is important to review our strategy for our domestic equity focus list portfolio. Our strategy is based on our 4-Pillar equity test, which has been fully discussed in a previous newsletter article. The four main points of the test are: (i) Attractive Business, (ii) Good Capital Stewards, (iii) Consistent Free Cash Flow Generation, and (iv) Valuation. We start by assessing the first three pillars, which contain both quantitative and qualitative factors. The intent of these factors is to identify high quality companies. Once we have filtered quality, we then dig into the valuation of the business, which is primarily derived by using a discounted cash flow model. If the valuation is reasonable, we assess the risk contribution of the stock on the entire focus list portfolio. This final step determines the weight to assign to the stock in the focus list portfolio (i.e. how much to purchase). This helps us ensure that we don't let any one individual stock have a material performance impact on the entire focus list portfolio.

"The FANG acronym stands for (i) Facebook, (ii) Amazon, (iii) Netflix, and (iv) Google"

During 2015, all four of the individual FANG stocks had strong performance in a relatively flat market. On a combined basis, the FANG stocks were up 82.7%. However, during 2016, the individual FANG stocks have had mixed performance, with two outperforming (Amazon and Facebook) and two underperforming (Alphabet and Netflix) the market. In addition, during 2016, the volatility of these four stocks has been materially greater than the market. Consequently, it is beneficial to understand each component of the FANG stocks on a stand-alone basis.

Facebook has been the most consistent strong performer of the group. During 2015, Facebook was up 34%. This has been followed by another 12.6% return so far this year. When assessing the quality of this business, we find strong results. This company has been successful at growing users and increasing the activity of its users. More importantly, the company has been able to successfully monetize its platform. The biggest question from our standpoint was valuation. The current valuation level (trailing P/E of 73.7x) implies that the company will continue to grow at a high rate for a long period of time. We agree that the company is likely to continue to grow at a high rate over the next year or two, but beyond that, it is very speculative as to what level the company will grow. Given the market is already pricing in strong long-term growth; we have chosen to wait for a more

FANG Stocks, continued

reasonable valuation level prior to taking a position in this stock.

Amazon has some similarities to those of Facebook, except that it didn't start making a profit until 2015. The company is trading at an all-time high following a 117% return in 2015 and another 5% during 2016. Finally showing a profit was one of the primary drivers of its 2015 performance. Amazon fits a lot of our quantitative and qualitative factors as well. The company has a high quality management team that continues to develop new product lines that tend to dominate their respective markets. Amazon currently trades at a trailing P/E of 293x and a forward P/E of 98.9x. At these levels the market is pricing in continued successful innovation of additional product lines. Our view is that management will continue to invest a significant amount of capital in the business which will keep profit levels low for a while. Consequently, we believe if we want to own the stock, there will likely be a more favorable time to invest and at a more reasonable pricing level.

"The main purpose of addressing the FANG stocks in this article is primarily due to the constant headlines these companies continue to produce. The fact of the matter is that there are a lot of stocks that do not fit our quality-focused strategy."

Netflix has been the most volatile of the four FANG stocks. The company's stock was up 134% during 2015 followed by a 12.4% reversal during 2016. From a quantitative perspective, Netflix ranks low amongst its Consumer Discretionary peers. The only positive quality factor is its growth. The company's return on capital and operating margins are in the low single digits. In addition, the beta of Netflix is 1.67 (or 67% more volatile than the market). Furthermore, the company has taken on some more debt in the last year, which is one of the quality metrics that we track. From a valuation perspective, the company is trading at a trailing P/E of 354x and a forward P/E of 175x. Consequently, this stock does not fit our quality criteria by multiple factors.

Alphabet (formerly Google) has gone through a structural change over the last twelve months. This structural change has provided full disclosure of the company's core business separate from its "other bets" or "moonshots" business. In addition, the company has enhanced its management team in order to allow management to focus on their respective segments without being distracted. Alphabet has strong quality business characteristics from a quantitative and qualitative perspective. In addition, our view is that the company is currently undervalued, currently trading at a trailing P/E of 30.5x and a forward P/E of 20.1x. Consequently, we initiated a position in this stock earlier this year.

The main purpose of addressing the FANG stocks in this article is primarily due to the constant headlines these companies continue to produce. The fact of the matter is that there are a lot of stocks that do not fit our quality-focused strategy. The purpose of a disciplined screening system is to exclude companies that do not fit our strategy. This does not mean that there won't be some low quality stocks or high priced stocks that continue to have strong performance. Our strategy is intended to produce strong long-term returns without taking on any unintended risk. This is achieved by focusing on quality businesses at reasonable valuation levels.

Japan and Negative Interest Rates

John Graham
Guest Contributor

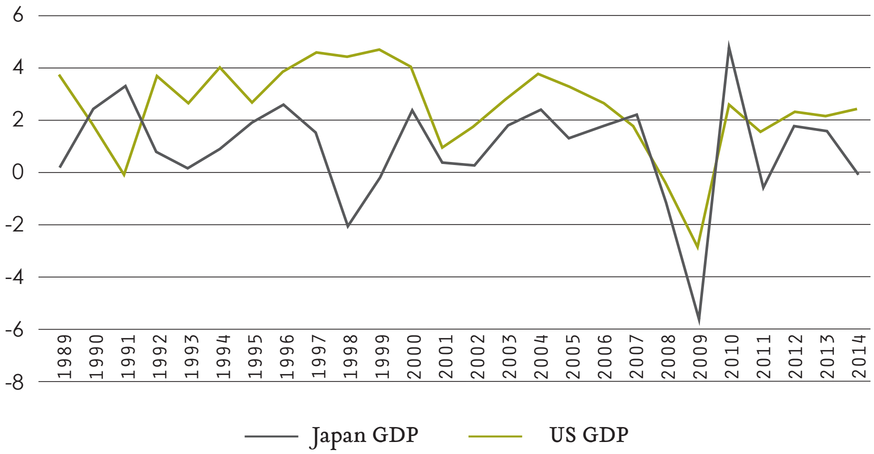
Some say the world will end in fire, Some say in ice.
Robert Frost

People who visit Japan often comment that it is the strangest country they have ever visited. The language is very different and English is widely studied, but not widely spoken. Customs around politeness are very important, but seem to be known only to the Japanese. The food, while excellent, is very different to anything in the West. Sushi, which began as a snack food, is just the beginning of a long, complicated, but extremely rich list of cuisines which put the emphasis on freshness and seasonality rather than complexity in cooking.

Economically, Japan is also different. Since the bursting of its economic bubble in 1989, Japan has struggled to grow. Some of the factors which have restricted Japan's growth since "The Bubble Era" are unique — such as its lack of natural resources — while others are extreme versions of factors present in many countries.

"Some of the factors which have restricted Japan's growth… are unique… while others are extreme versions of factors present in many countries."

JAPAN vs US GDP



World Bank/Liminal Partners

The first of these is an aging population. Over 26% of the Japanese population exceeds 65 years of age (33 million people in 2015). By contrast, the same percentage for the US is 14%.[1] Over the past few years, Japan's population has shrunk as deaths have exceeded births. In fact, the total fertility rate in Japan has been below the replacement rate since 1974.[2] This drop in population has a number of causes, among them: the very high life expectancy (84 years in Japan versus 78 years in the US), poorer employment prospects (less lifetime employment, lower wages), and a poor work/life balance.

Most importantly, Japan allows very little immigration, a factor that has helped the US, Canada and Australia maintain a lower average age in the population. This unwillingness to allow immigration is very Japanese. In Japan, there is a very strict definition of who is Japanese and who is not. The

Japan, continued

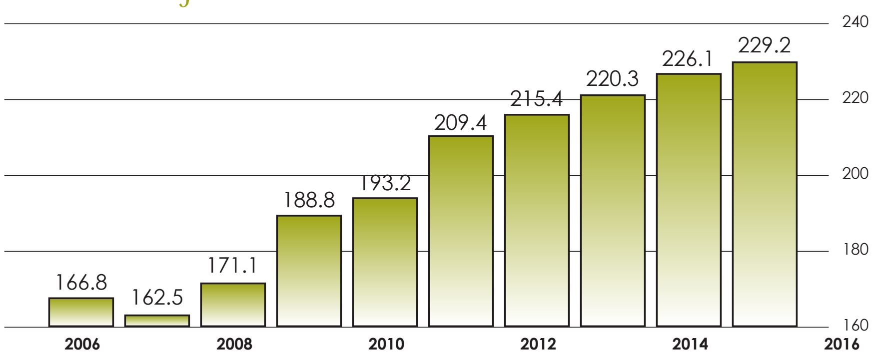
Japanese language and culture rely on having a very tightly knit society where everyone knows their place. This knowledge is reflected in the language and etiquette and lies at the heart of life in Japan. While this cultural closeness is exceptionally effective in allowing large number of people to live together on four very small islands, it makes the Japanese fearful of admitting non-ethnic Japanese into their society. They worry about the disruptive influence of those who do not fit. They have, in effect, created a cultural and ethnic wall around Japan.

The aging of its population and refusal to allow immigration into Japan, which would bolster its workforce and support its tax base by reducing its dependency ratio (the ratio of retired workers to active workers), has led to severe problems for Japan. The large retired population relies on both state pension payments and drawing down its savings. As well as receiving government payments, this portion of the population is naturally reluctant to borrow for consumption and investment thus reducing the ability of the Government to encourage domestic economic activity via lower interest rates and other monetary policy.

"The aging of its population and refusal to allow immigration into Japan… has led to severe problems…"

To help overcome this problem, the government also has tried large fiscal stimulus programs to try to stimulate the domestic economy. However, the only apparent result has been a debt to GDP ratio for Japan which is among the largest in the world!

JAPAN GOVERNMENT DEBT TO GDP



Source: www.tradingeconomics.com | Ministry of Finance, Japan

More recently, Prime Minister Abe has implemented a three pronged attack on the lack of economic growth. The so called Three Arrows plan (sometimes called "Abenomics" by the cynical) calls for higher taxes on consumption to address the government's lack of credibility around its debt problem, aggressive monetary policy including an attempt to weaken the Japanese Yen and structural reform. While rises in consumption tax have, in fact, hurt the economy, structural reform has proved elusive. The Bank of Japan's (BOJ) experiment with aggressive monetary policy, including negative interest rates, has been fascinating for outsiders, particularly those in countries where Negative Interest Rate Policy (NIRP) is being considered.

While Japan has always had very low interest rates due to its high level of domestic savings, rates on long Japanese Government Bonds (JGBs) went into negative territory last quarter. Ten year bonds now stand at -0.12% after the BOJ pushed deposit rates for banks into negative territory. It is interesting to see that the European Central Bank has followed the same path. So why do these Central Banks employ NIRP?

The core thrust of NIRP is to punish banks for leaving deposits at the Central Bank. Banks can not charge savers negative rates, and lose money on every yen or euro they hold in cash reserves. The Central Bank would like them to lend more money into the markets to stimulate the economy and through NIRP effectively punishes them if they do not. So why has lending not increased?

There are many reasons given, but in my mind, they boil down to two things: lack of demand, and regulation. We've already talked about the first reason, at least in Japan. (In the US, the reluctance to borrow seems more linked to continued high levels of consumer debt). While the aging domestic population does not have an appetite to borrow, Japan's multinational corporations (the Sonys and Toyotas of this world) do have a need to borrow. However, they can borrow anywhere in the world and at any time in response to a shift in the demand for their products. Against a backdrop of slow global growth, even the multinationals lack a big appetite to borrow unless it is to pay for special dividends or acquisitions, activities which do not add immediately to GDP.

Recently, I had met with the CFO of a large European bank. His comment on regulation was illustrative. His thought was that while the ECB has its foot on the gas pedal of the economic car, the regulators have their foot firmly on the brake. Each one is doing what they have been told to do. The ECB is meant to get the economy growing against the absence of government spending (debt constrained). The regulators, on the other hand, are meant to keep us from having another financial crisis by making sure lending is tightly controlled. In this situation, which prevails in Japan and the US as well, it is easy to see why lending does not increase substantially and growth remains modest.

The shift to negative rates has had a couple of interesting unintended consequences in Japan. First, and perhaps more predictably, banks complain that their earnings are being hurt. Because interest rates keep dropping, the rates at which they can lend are also dropping, while consumer deposit rates, their source of funds, cannot drop below zero. Hence a squeeze on bank margins, that further exacerbates the lending conundrum.

Second, one of the pillars of BOJ policy, a weaker yen, has been undermined by the increasingly low rates on offer in the Japanese corporate bond markets. Like many other countries with older populations, the scramble for income in Japan is fierce. Investors regularly buy funds that pay very high dividends even though the payment of such dividends puts their capital at risk. These funds

"Like many other countries with older populations, the scramble for income in Japan is fierce. Investors regularly buy funds that pay very high dividends even though the payment of such dividends puts their capital at risk."

Japan, continued

work much like reverse mortgages in the US by providing income not normally available from an asset (houses or cash). In the bond market, with barely any spread left between corporate bonds and government bonds, investors have been buying bonds overseas in foreign currency. While you might think this would undermine the yen and be exactly what the BOJ wants, in fact, most investors have hedged the bonds bought recently and the bonds already held overseas to maturity. This investment pattern combined with risk aversion purchases has put upward pressure on the currency at a time when the BOJ wants the opposite to happen.

US Dollar/Japan Yen

Bloomberg

"Since the Financial Crisis in 2008, the world of investing has been dominated by Frost's choice of fire or ice for the end of the global financial crisis."

Since the Financial Crisis in 2008, the world of investing has been dominated by Frost's choice of fire or ice for the end of the global financial crisis. Eight years on, we remain stuck between the two. World governments, constrained by their debt burdens continually egg on the Central Banks to set the global economy ablaze with monetary fire. An episode of uncontrolled inflation would both reduce debt burdens for all and, for governments, do the job of asset confiscation that is the inevitable end if the globe becomes encased in economic ice. Clearly, most voters across the developed world would be happy with much higher levels of growth, even if the cost is rampant inflation. The ones who would suffer in this scenario are savers. Desperate for this outcome, Central Banks like the BOJ are considering:

1. Buying bonds straight from the government which are not redeemable.
2. Wiping out government debt held at the Central Bank

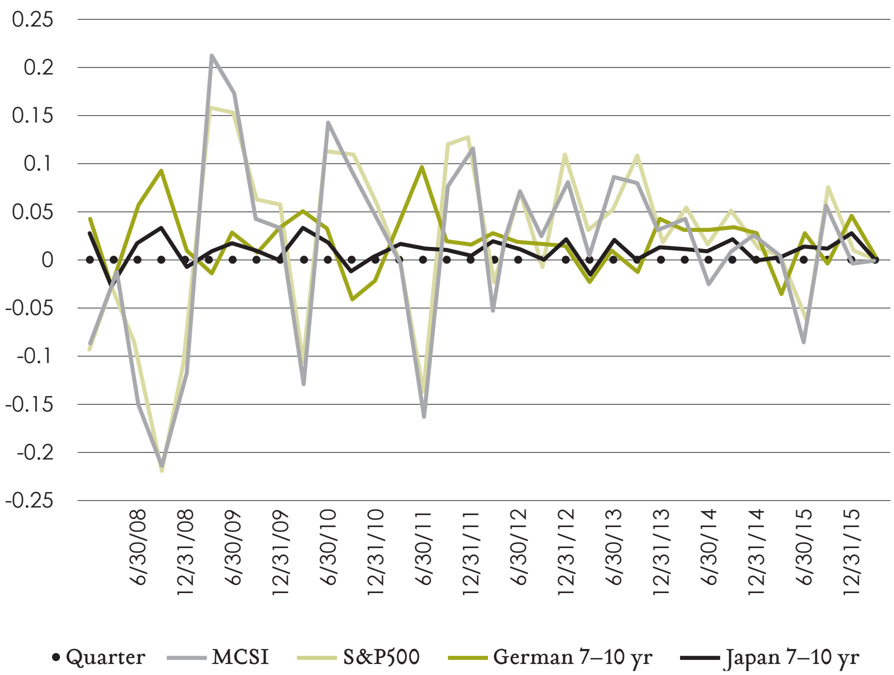
3. Making a payment to everyone in the country to stimulate spending.

However, in a world that is aging, where all sectors are laden with debt, the risk is that we, even with such extreme measures as above, maintain the slow pace of growth we have experienced over the past eight years with all social consequences that entails.

So what does one do as an investor? Well, there are always a myriad of opportunities for investors who do their homework. One thing that is important to remember is that even when bonds have low or even negative yields, they can still be the best performing assets in a portfolio in times of stress. The chart below shows that in the last four quarters, German and Japanese 7 – 10 Year Government bonds have been the best performing assets in two of four quarters, even with low yields, in a four asset portfolio of global shares, US shares, German Governments and Japanese Governments. Last quarter's outperformance was especially impressive as both German and Japanese Government Bonds had negative yields!

"So what does one do as an investor? Well, there are always a myriad of opportunities for investors who do their homework."

ASSET CLASS TOTAL RETURNS



Bloomberg Data/Liminal Partners

We don't know if the world will end in fire or ice, so as prudent investors, we diversify!

1 World Bank

2 Ministry of Internal Affairs and Communications, Japan. Statistics Bureau

Stock Market Pulse

Index	5/31/16	Total Return Since 12/31/2015
S&P 1500	484.88	3.91%
DJIA	17,787.20	3.34%
NASDAQ	4,948.06	-0.61%
S&P 500	2,096.96	3.57%
S&P 400	1,493.05	7.48%
S&P 600	705.14	5.59%
NYSE Composite	10,441.00	2.93%
Dow Jones Utilities	659.44	15.84%
Barclays Aggregate Bond	110.70	3.31%

P/E Multiples	5/31/16
S&P 1500	18.1x
DJIA	16.6x
NASDAQ	21.0x
S&P 500	18.0x
S&P 400	19.4x
S&P 600	19.1x

Key Rates

Fed Funds Rate	0% to 0.25%
T Bill 90 Days	0.30%
T Bond 30 Yr	2.63%
Prime Rate	3.50%

Current Valuations

Index	Aggregate	P/E	Div. Yield
S&P 1500	484.88	18.1x	2.10%
S&P 500	2,096.96	18.0x	2.16%
DJIA	17,787.20	16.6x	2.56%
Dow Jones Utilities	659.44	NA	3.25%

Spread Between 30 Year Government Yields and Market Dividend Yields: 0.53%

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