FIDUCIARY PERSPECTIVE

INSIGHTS ON PRIVATE WEALTH MANAGEMENT

SECOND QUARTER 2017

STRONG U.S. ECONOMY WITH GLOBAL POLITICAL UNCERTAINTIES

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Q1 RETROSPECTIVE

U.S. and European Political Environment: In our prior piece, "The Evolution of Trump's Transition," we highlighted three phases to the market's response to Donald Trump's unexpected win: 1) the Initial Reaction, 2) Speculation around the Administration's initiatives and priorities, and 3) Emerging Clarity related to how investors should interpret new policies and proposals. With the first quarter of 2017 concluded, we are firmly in the transition between Phases Two and Three.

Under the new administration, few certainties have yet to emerge. However, the market interpreted positive economic data and policy developments as signaling an end to low inflation, low growth and a low interest rate environment. In March, this sentiment was backed by the Fed's move to raise its benchmark interest rate for the second time in three months, to 0.75 percent.

Recent actions from the new administration seem to underscore President Trump's intent to implement many of the promises made by candidate Trump. These included 23 executive orders that collectively advanced commitments to roll back the regulatory policies of the previous administration.[1] Many of these early actions have targeted D.C. rulemaking in general and in particular, the areas of financial services, foreign trade, and the environment. Executive actions on immigration and the GOP's legislative efforts to amend the Affordable Care Act (ACA) have yet to be fully resolved. As of this writing, analysts are still waiting for many more details on potential tax reform and an infrastructure package that could arrive in the second quarter. Given the failed ACA effort, there is more uncertainty regarding the success of these additional initiatives which in our mind are significant drivers of this "Trump rally."

Globally, investors also gained some clarity from the Dutch elections during the first quarter. In essence, this was the first test in 2017 of European populism's viability. The rising tide of populism was at least temporarily stalled when incumbent Prime Minister Mark Rutte emerged victorious over far-right and anti-Euro contender Geert Wilders. Over the next two quarters, analysts will focus on the upcoming elections in France and Germany, which will serve as a much broader bellwether to the political climate in Europe. Equally as important is the U.K.'s formal process of leaving the E.U. This complex, untested process presents an almost overwhelming array of decisions that must be made over the next two years by multiple parties. Prime Minister May formally initiated this process in late March.

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Economic & Market Environment: Given this macro background, most asset classes performed well in the first quarter. Equities gained further momentum, building upon the strong finish in the fourth quarter. The Dow Jones Industrial Average passed the 21,000-point threshold in March, and then retreated slightly. The S&P 500 also increased 6.1% during Q1, posting its largest gains in February. As foreign economies showed signs of improvement, developed non-U.S. equities posted a 7.3% gain in the quarter as measured by the MSCI EAFE Index. Emerging market stocks also rebounded from a Q4 slump that was related to the dollar's strength, as the MSCI Emerging Markets Index finished the first three months up 11.5 percent. Emboldened by Rutte's March win in the Dutch elections, the MSCI European Monetary Union Index also finished the quarter up 8.6 percent. (Source: Bloomberg)

On the U.S. front, positive economic data supported equity gains. Among the headlines, the February jobs report showed a 10-basis point reduction in the unemployment rate, which fell to 4.7 percent. Nonfarm payrolls also came in far higher than analysts' expectations. The Institute of Supply Management (ISM) manufacturing index added further optimism as the February index logged an impressive gain to reach 57.7, its highest reading since August 2014, before dropping slightly in March. The manufacturing sector was bolstered by new orders and widespread strength across most sectors, with 17 of the 18 reporting industries showing growth. The ISM non-manufacturing index also surpassed expectations, registering a 57.6 percent reading in February. On March 30, the final real GDP figures for the fourth quarter showed 2.1% annualized growth, fueled by strong consumer spending.[2]

This positive economic data has translated into sustained corporate earnings growth. If projections for the first quarter are accurate, S&P 500 companies will have produced earnings per share expansion for three straight quarters, following a string of seven quarters of negative growth. As of March 31, 2017, the S&P 500 was trading at a 17.6 forward price-to-earnings ratio, which remains above both the five-year and 10-year averages of 15.1 and 14.0, respectively.[3]

The firming economic picture also supported the Fed's decision to raise interest rates at the March FOMC meeting. The Fed raised the benchmark interest rate by a quarter point and signaled that future rate hikes would proceed at a "gradual" pace. Amid the rising rate environment, in which the committee anticipates raising rates two more times in 2017, fiscal policy is replacing monetary policy as the most influential market catalyst. As a result, the 10-year Treasury yield remained above its historic lows from last year and finished the quarter at 2.40 percent.[4] Exhibit A highlights the returns for the quarter in the major asset classes.

Exhibit A: Total Returns by Asset Class

	Asset Class	2016 Year	2017 1Q
Equities	**U.S. Large Cap** *S&P 500 Index*	12.0%	6.1%
Equities	**U.S. Small Cap** *Russell 2000 Index*	21.3%	2.5%
Equities	**Developed Non-U.S.** *MSCI EAFE Index*	1.0%	7.3%
Equities	**Emerging Markets** *MSCI Emerging Markets Index*	11.2%	11.5%
Equities	**Non-U.S. REITs** *DJ Global REIT ex-US Index*	1.4%	3.7%
Alternatives	**Gold**	8.7%	7.3%
Alternatives	**Managed Futures** *U.S. OE Managed Futures Index*	-2.7%	1.6%
Alternatives	**Hedge Funds** *HFRX Global Hedge Fund Index*	2.5%	1.7%
Alternatives	**Master Ltd. Partnerships** *Alerian MLP Index*	18.3%	4.0%

	Asset Class	2016 Year	2017 1Q
Fixed Income	**U.S. Investment Grade** *Barclays Interm. Gov't / Credit Index*	2.1%	0.8%
Fixed Income	**Inflation-Protected** *BofAML US Treas Inflation-Linked Idx*	4.9%	1.3%
Fixed Income	**Global High-Yield** *Bloomberg Barclays Global HY Index*	14.3%	3.2%
Fixed Income	**Global Bonds** *Citi World Global Bond Index ex-U.S.*	1.8%	2.2%
Cash	**Cash** *BofAML 3M US Treasury Note Index*	0.3%	0.1%

Source: Bloomberg, Fiduciary Trust

OUTLOOK: A FACT-BASED APPROACH

Capital markets have always operated within a range of uncertainties. This year is proving to be no exception. Our three-phase template is intended to guide us through uncertain circumstances and to recognize facts from hypotheses. We will continue to employ this framework as more information unfolds regarding the new administration, Brexit and other global changes.

The Uncertain Path of Trump's Policies: Since last quarter, new facts have emerged around Trump's policy proposals. The two thwarted travel ban attempts and one failed ACA modification are facts that drive those topics' moving from Phase Two/Speculation to Phase Three/Emerging Clarity. These are important inputs to modelling the likelihood of tax policy reforms or infrastructure builds. Based on this new data, we have lowered expectations somewhat regarding the outlook for tax cuts. While it still appears more likely than not, Trump's recent defeats have tempered expectations about future successes in that area.

We expect Washington's process to have a major tactical impact on markets as officials debate the policies and many analysts have developed overly optimistic expectations. This should lead to greater volatility. However, the fundamental baseline of the U.S. economy appears to be improving, and will likely form a foundation for a slow, but steadily improving U.S. economic picture. As Trump proceeds with his administration's other proposals and outcomes become clearer, such data will allow a more objective assessment of future equity returns. Although a major focus, the subject of President Trump is just one of several important factors that will determine the future state of the markets.

U.S. Corporate Earnings & Valuations: U.S. stocks appear to be priced for impressive earnings growth. Since the election, the S&P 500's performance has boosted the Shiller P/E ratio (based on the average inflation adjusted earnings from the previous 10 years) to its highest level in many years.[5] While most investors are optimistic that some form of 2017 tax cuts will contribute directly to earnings growth, we remain cautious. We think the U.S. economic picture has improved, but that U.S. equity valuations are somewhat vulnerable to negative surprises that are possible in the coming months. However, we view any selloff as an opportunity to rebalance exposure to U.S. equities to policy weights. It is likely that any overheating from the Trump stimulus effects will be well-managed by additional Fed rate increases undertaken to control inflation. Under these circumstances, U.S. equities still provide a solid foundation for growth in the core portion of a portfolio.

Interest Rates: Currently, three dominant factors are driving interest rates. The two traditional ones are the Federal Reserve and the observed health of the domestic economy. A novel third component is based on the Trump pro-growth agenda. This additional dimension complicates the interest rate picture. Referring to the traditional role of the Federal Reserve, rates will most likely continue to increase, but at a steady, accommodative pace. Given that chair Yellen has signaled a reasonable approach to balancing growth against inflationary pressures, we expect several more rate hikes this year. But we also think the Fed will adapt its stance, if necessary.

Regarding the economic baseline, we expect domestic earnings to continue their upward growth at a slow, consistent, pace. However, because of Trump's policies, an early increase in the 10-year U.S. Treasury yield complicated the picture. Investors incorrectly assumed that pro-growth policies would quickly be approved. This increased inflation expectations. We now know that to date, this has not been the case, and most market participants are challenged to assess an equilibrium level for rates, given the additional uncertainties. As the second and third quarters evolve, such speculative positions will be tested and the future prospect of rate hikes should be easier to assess.

Brexit Execution: As the U.K. begins to implement Brexit, Europe may enter into a period of uncertainty not experienced since the fall of the Berlin Wall more than 25 years ago. We expect the U.K. and the European Union to experience two years of protracted, tense negotiations. E.U. members must agree upon details ranging from the eventful to the tedious. Unlike other material events that have impacted capital markets, there is no precedent for analysts to compare.

To formulate an outlook at this point in the Brexit process, it is useful to consider the multi-phased approach used in assessing the impact of President Trump. In the case of the U.K. though, the process is clearly in Phase Two/Speculation only, because there are no data points yet to analyze. We expect that more information will be released as the E.U. commences discussions on the steps both sides will take to complete the exit over the next two years. During Phase Two, we expect European stocks and bonds to experience increased volatility, even though the bloc is finally reporting measures of stronger baseline growth. As a result, we recommend being underweight developed international markets.

French Elections: While the recent Dutch election was the first test of populism within the E.U. this year, the bloc faces a greater, more impactful test with the elections in France on April 23. Among the candidates, Le Pen's platform is the most aggressive, endorsing an exit from the E.U. as well as its currency, the euro. Analysts mostly agree that a Le Pen victory would shock the European markets, and possibly the U.S. markets by contagion. Although polls indicate that such a victory is unlikely, as demonstrated in the U.S. election and Brexit polls, they are less reliable for their predictive power. Although the results will not be known until the final round on May 7, we expect that incremental campaign details will evolve in the interim. Until the final results are known in May, it will be near impossible to discern campaign bluster from actual policies that will be executed by any of the leading candidates. This is another rationale for remaining underweight developed non-U.S. markets through the next quarter. Exhibit B summarizes our perspective on these markets as well as the other major asset classes.

Currently, there is more than the usual amount of uncertainty in the global markets. We focus on identifying the risks associated with the many potential outcomes of events, and how to position portfolios against such risks. As the many situations outlined above continue to evolve, we are prepared to make adjustments in order to achieve the optimal returns within a reasonable level of risk. ■

Exhibit B: Fiduciary Trust Asset Class Perspectives

	Asset Class	Attractiveness			Key Thoughts
		Less	Neutral	More	
Equities	U.S. Large Cap		●		Valuations are higher than long-term averages, yet potential upside remains as economy strengthens; modestly attractive
Equities	U.S. Small Cap			●	U.S. centric nature of most business models is appealing
Equities	Developed Non-U.S. Large Cap	●			Despite Asia's stability, expect continued uncertainty in the Eurozone due to Brexit, and French and German elections
Equities	Emerging Markets		●		Attractive valuations reflect faster growth prospects, but with more risk
Equities	Non-U.S. REITs		●		Offers global diversification with attractive income; Brexit uncertainties present a challenge
Fixed Income	U.S. Investment-Grade		●		Although Fed likely to raise rates, asset class provides much needed "ballast" to cushion against global uncertainty
Fixed Income	Inflation-Protected	●			Inexpensive breakeven inflation rates; upward inflation pressure likely to remain uncertain
Fixed Income	Global High-Yield			●	Majority of exposure to US-based credits and companies; overall asset class is stable and still attractive in a rising rate environment
Fixed Income	Global Bonds		●		Relative to U.S. fixed income, global bonds offer less compelling risk/reward; currency risk is elevated
Alternatives	Gold		●		A safe haven asset which is cyclically strong with low to negative correlations to most other asset classes; hedges extreme volatility
Alternatives	Managed Futures	●			Current environment poses challenges for trend-following strategies
Alternatives	Hedge Funds	●			Overall asset class has disappointed in recent years; correlations to equities higher than forecasted; talent pool of managers is limited
Alternatives	Master Limited Partnerships	●			Despite attractive yields, sensitivity to volatile energy prices is challenging
Cash	Cash		●		Uncorrelated asset with almost no volatility

[1] WhiteHouse.gov
[2] Bureau of Economic Analysis, March 30, 2017
[3] FactSet
[4] Bloomberg
[5] www.econ.yale.edu/~shiller/data.htm

FIXED INCOME IN A RISING RATE ENVIRONMENT

By Peter C. Andersen
Chief Investment Officer

Ever since the November 2016 election results, bonds have been under considerable scrutiny. The likelihood for higher interest rates, coupled with expected stimulus stemming from the new administration's proposed policy agenda, triggered a reflation trade across the markets. As a result, the yield curve steepened, while equities rallied and investors priced in optimistic scenarios for U.S. stocks. We know "bond math" teaches us that rising rates drives bond prices down. Conventional wisdom might suggest that investors lighten their exposure to bonds in a rising rate environment, although such thinking would overlook the critical role that fixed income plays in a diversified portfolio.

Consider a typical 60/40 portfolio, which in recent years has evolved to better resemble a 70/30 mix of equities to bonds, given the appreciation in equities. It is not unusual for a balanced portfolio today to hold a meaningful percentage, at least 20%, of investment grade bonds, with the balance held in other bond-like instruments. If there are no material changes to an investor's personal financial objectives, many may be rethinking their fixed income allocations, particularly in light of the new backdrop. Before making any changes, it might be wise for investors to review why they are invested in fixed income in the first place.

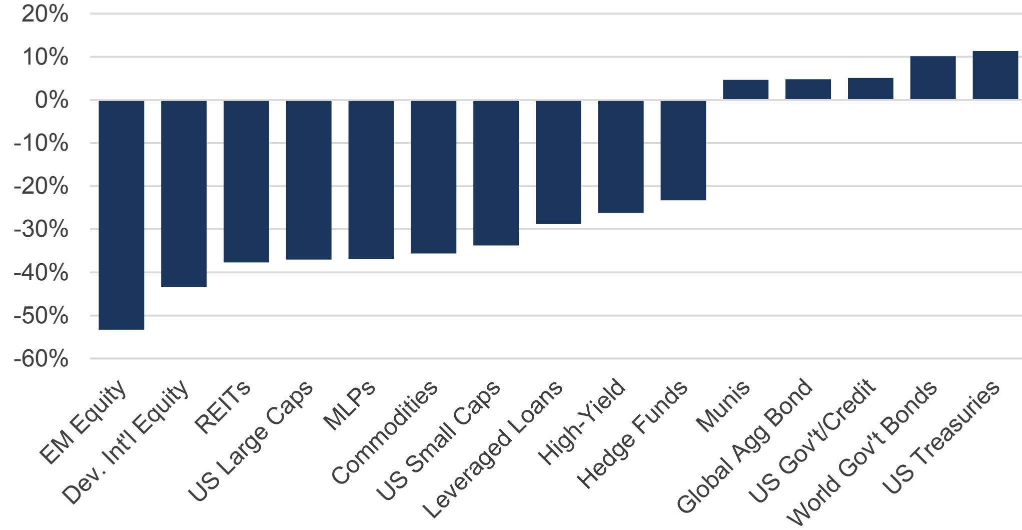
PORTFOLIO BALLAST AGAINST MARKET STRESS

In the portfolio construction calculus of Fiduciary Trust, high-quality bonds serve two basic functions: a) they produce income, and b) they provide a very important ballast against negative market surprises. That's all. These allocations, for us, are not about making speculative total return plays. They're also not about finding distressed turnaround opportunities. And, finally, in no way are allocations about making opaque currency bets. Those plays are reserved for other fixed-income satellite investments such as high yield, international currency investments, and distressed bonds. High-grade fixed income, in our philosophy, is a hedge against market disasters. These types of bonds can provide ballast against potential negative surprises that drive widespread selloffs across equities of all types. Under stress, non-investment grade bonds can assume equity-like characteristics and post losses similar in magnitude to stocks. Ballast fixed income tends to counteract such market forces, and is the destination for investors seeking quality in panics.

If all bonds are not created equal, then it's important to determine which types of bonds provide ballast. Look no further than the financial crisis of 2008. Exhibit A highlights a range of asset classes and their performance during 2008. It clearly demonstrates that high-quality fixed income in various classifications had positive returns in a year when many other asset classes suffered substantial losses.

It is important to acknowledge that there are other asset classes that posted positive returns in 2008. Timber is one example. However, high-quality bonds like Treasuries and corporate investment grade bonds are generally considered to be more attractive during times of panic given their transparency, accessibility to all investors, and liquidity profile. Moreover, their track record during past bouts of economic and market unrest reinforces their role as ballast. Going back as far as 1928, the S&P 500 has posted double-digit negative annual returns 10 times; in all but two of

Exhibit A: 2008 Total Returns by Asset Class



Source: Bloomberg, Fiduciary Trust

"High-grade fixed income, in our philosophy, is a hedge against market disasters."

those years, the 10-year U.S. Treasury ended the year in positive territory, while the three-month T-Bill posted positive returns in each of the 10 years (Exhibit B). Other asset classes did not hold up as well.

Other more striking examples demonstrate the durability of U.S. Treasuries in times of stress. In 2011, Standard & Poor's ratings agency downgraded U.S. Treasuries to AA+ from AAA, simultaneously placing them on "negative outlook." The news of this action – coming as a shock to investors worldwide – took place after the markets closed on a Friday evening in August. It was anticipated that the following Monday would see a tremendous selloff in Treasuries. Instead, Treasuries rallied. By the end of the week, remarkably, the 10-year Treasury price actually increased as yields dropped from 2.50% to 2.25 percent. The point of this: even when faced with what was considered to be a worst-case scenario for Treasuries, it is ironic that investors still sought refuge in the very instrument that was the cause for concern.

WHEN RATES RISE, DON'T LOSE FOCUS

Most investors seek portfolios that generate some amount of steady income. If you are committed to a long-term investment horizon, bonds should play a crucial role of providing income. And if you remain patient, a rate increase can lead to higher bond returns over time through higher income.

While high-grade bonds should anchor allocations to protect against the unexpected, that doesn't mean they are invulnerable to a rising rate scenario. When market conditions are absent of selloffs or panics, investors may overlook bonds' ballast properties. Instead they may focus on rising rates and the short-term 'paper losses' in their portfolios, since bond prices decrease as interest rates increase. However, there are still reasons to hold bonds, especially in a rising rate period.

Many investors are surprised to learn that not all fixed income responds the same to higher rates. For example, Exhibit C shows how a range of fixed income instruments has performed in recent periods of rising interest rates. Here we chose periods in the last 15 years where the 10-year Treasury yield rose at least about 50% within one year. In the table, the Corporate Investment Grade, U.S. Aggregate, and Municipal columns represent high-quality bond indices. We have also included floating rate loans and high-yield indices as two examples of fixed income satellites.

Exhibit B: Periods of S&P 500 Annual Double Digit Negative Returns, 1928-2015

Year	Annual Return on Investment		
	S&P 500	3-Month T. Bill	10-Year T. Bond
1931	-43.8%	2.3%	-2.6%
2008	-36.6%	1.6%	20.1%
1937	-35.3%	0.3%	1.4%
1974	-25.9%	7.8%	2.0%
2002	-22.0%	1.7%	15.1%
1973	-14.3%	6.7%	3.7%
1941	-12.8%	0.1%	-2.0%
2001	-11.9%	3.7%	5.6%
1940	-10.7%	0.0%	5.4%
1957	-10.5%	3.2%	6.8%

Source: Bloomberg, Fiduciary Trust

Exhibit C: Fixed Income Total Returns During Rising Rate Periods

Period			10-Yr Treasury Yield			Total Returns				
Start	End	# Days	Start	End	Change	Corp. I-Grade	U.S. Aggreg.	Munis	Floating Rate	High-Yield
RISING RATE PERIODS										
6/13/03	9/3/03	82	3.13%	4.60%	1.47%	-5.7%	-4.3%	-5.8%	1.8%	2.1%
12/18/08	6/10/09	174	2.08%	3.98%	1.90%	7.3%	0.3%	10.9%	34.4%	43.6%
10/6/10	2/8/11	125	2.41%	3.75%	1.34%	-2.8%	-2.7%	-5.8%	5.4%	5.7%
5/1/13	9/5/13	127	1.66%	2.98%	1.32%	-6.1%	-4.7%	-7.4%	0.6%	-2.0%
2/2/15	6/10/15	128	1.68%	2.50%	0.82%	-4.3%	-2.8%	-2.2%	2.7%	2.4%
YEAR AFTER EACH RISING RATE PERIOD										
9/3/03	9/3/04	366	4.60%	4.30%	-0.30%	7.5%	6.1%	9.1%	6.6%	13.5%
6/10/09	6/10/10	365	3.98%	3.33%	-0.65%	16.2%	9.8%	10.2%	20.4%	24.3%
2/8/11	2/8/12	365	3.75%	2.01%	-1.74%	11.2%	9.3%	15.5%	1.8%	6.1%
9/5/13	9/5/14	365	2.98%	2.46%	-0.52%	8.9%	5.8%	11.2%	4.7%	10.0%
6/10/15	6/10/16	366	2.50%	1.64%	-0.86%	7.1%	5.5%	7.6%	1.0%	1.3%

Note: Referenced headers are as follows, US Agg - Bloomberg Barclays US Aggregate Bond Index, Corp IG - Bloomberg Barclays US Corporate Investment Grade index, Lvg Loans - S&P/LSTA Leveraged Loan Index, HY - Bloomberg Barclays US Corporate High Yield Index, Munis - Bank of America Merrill Lynch Municipal Master

Source: Bloomberg, Morningstar, Fiduciary Trust

"When market conditions are absent of selloffs or panics, investors may overlook bonds' ballast properties."

Across bonds, the effect of rising interest rates runs along a spectrum, and the impact on prices can either be more pronounced or negligible depending on the types of bonds. As expected, during periods of increasing interest rates, higher quality bonds do experience price pressure. But, notice how the satellite asset classes in fixed income historically offset the traditional negative responses to higher rates. This is most likely because high-yield bonds' higher coupons or floating rate loans' adjustable rates can offset price declines in principal, yielding positive returns in many cases. This property can potentially mitigate the impact of future rising rates to portfolios.

It is important to examine the performance of the various types of bonds after the rate increases occurred. The lower portion of Exhibit C shows how the same bonds of different types have recovered in the year following the sharp rise in rates.

What this shows is that staying fully invested in bonds allowed the higher rates to generate greater current income, which in turn, offset the price erosion to various degrees. For example, investors who remained invested through the rate hike cycle from February to June 2015 would have been pleased: all five bond types for the one-year period after the rising rate cycle displayed positive returns. This means that investors may benefit from higher, not lower rates over time as the compounding effect of the coupon income begins to dominate the return calculation.

Regarding portfolio construction, 20% to 35% total allocations to fixed income, investment grade bonds, and Treasuries may typically comprise the bulk of the commitment. In addition, smaller "satellite" investments in bank loan funds, high-yield debt, or other fixed income securities can complement an individual's core bond holdings as the environment changes. This allows us to fine tune and customize portfolios based on clients' income needs, return expectations, risk appetites and investment time horizons as well as other, market-related factors.

The U.S. has experienced quite a run of positive economic news, including fourth-quarter S&P 500 corporate earnings that increased both sequentially and year over year, and improving consumer sentiment. The positive momentum continues, in spite of considerable domestic and global uncertainty. Given the Fed's recent rate hike actions, many investors will be wrongly focused on exiting fixed income as the economy most likely continues to improve. Among the "known" unknowns in 2017 are the upcoming elections and referendums throughout the Eurozone, fallout from last month's National People's Congress in China, and the ongoing presidential transition in the U.S., all of which will surely influence capital markets. Along the way, the six remaining FOMC meetings will also be closely watched by analysts who are anticipating anywhere from two to three rate hikes in 2017.

As investors struggle to comprehend the new policies of President Trump as well as a global macro-economic picture that offers little conviction, some may continue to second-guess their original portfolio construction and asset allocations. To the greatest extent possible, important decisions about changing the policy allocations must be centered on facts and observations. The present conditions are so fluid that there aren't enough clear signals in the noise to conclude that the time is right to reduce one's bond exposure. Ironically, that's a main reason to remain respectful of high-quality fixed-income and to ultimately stay the course. Should there be a surprise around the next turn, investors will be thankful for the stability provided by their fixed income ballast. ■

CYBERSECURITY: REDUCING YOUR RISKS

By Arthur Andon
Chief Technology Officer

By Kelly Hollister
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Having a simple anti-virus software installed on your computer used to be sufficient protection from cyberthieves. However, due to the increasing sophistication of hackers, anti-virus software alone will no longer protect your confidential information (e.g., passwords, personal account information, etc.). These cyber-attackers now target and exploit common patterns in the way people use their devices and access their personal data. To help you keep one step ahead of Internet saboteurs, keep in mind some of the most common and unexpected "dangers" that could compromise your cybersecurity:

1. Clicking "Update Later"

The Danger: You're probably familiar with the "update available" notification that only seems to pop up in the middle of something important. The notification window is easily dismissed by clicking "update later," but putting the update off could leave your device susceptible to malware or a hacker. Malware, short for malicious software, is software designed to disable, access, or damage a device without the user's consent.

The Damage: Software updates often serve to "patch" critical security flaws within the software. When a developer identifies a security weakness that could be exploited (sometimes called software vulnerability) the developer typically creates a "patch" that modifies the software to prevent the vulnerability from being exploited. Cyberthieves frequently target outdated applications with known vulnerabilities that can be used to penetrate your device.

The Defense: Keeping applications up-to-date can prevent 85% of targeted cybersecurity attacks.[1] Update your operating system, web browser, and other applications as soon as you're able. Browsers and browser extensions (such as Adobe Flash) are the most commonly exploited security holes so think twice before delaying updates to Chrome, Firefox, Safari or Internet Explorer.[2] Most operating systems also allow you to turn on automatic application updates so you'll never be tempted to hit "update later" again. If you use auto-update on your mobile device and are worried about data usage, turning off "Use Cellular Data" will ensure the updates are only downloaded when your device is connected to Wi-Fi.

2. Connecting to Public Wi-Fi

The Danger: Data limits and poor cellular service can make public Wi-Fi tempting, but you could be putting your cybersecurity at risk.

The Damage: Data transferred over a public Wi-Fi network can easily be tracked and intercepted (including login information and passwords). And while it might be tempting to use public Wi-Fi even for just a few minutes, keep in mind that a Wi-Fi attack on an open network can take place in less than two seconds.[3]

The Defense: Consider using a Virtual Private Network ("VPN") application which authenticates you and your device to create a secure Internet connection on any network (including public Wi-Fi) so that the information you send and receive from your device is encrypted and secured from others who are using a network.

“Putting the update off could leave your device susceptible to malware or a hacker.”

3. Turning off Password Protection

The Danger: It seems we rely on our mobile devices for just about everything from navigation to health tracking to mobile payments. As a result, typing in a home screen passcode every time you need access to your device can make it tempting to opt for convenience over security.

The Damage: If you left your phone behind at a restaurant, it probably wouldn’t take long for someone to get access to apps, saved passwords, payment details, or social media accounts that may contain personal information such as your date of birth, address, or relatives’ names that could be used to steal your identity. And even if you’re lucky enough to have your device returned by a Good Samaritan, consider that one study found that almost every person who came across a lost cell phone looked up personal information stored on it.[4]

The Defense: Turn on “password protection” and treat your device like a digital wallet that holds all of your personal data. Where available, set up a password for each application on the device as well so that even if someone gains access to your phone or laptop, the most sensitive information on the device is not easily accessible.

4. Clicking on Untrustworthy Links

The Danger: When it comes to links, curiosity could be killing your cybersecurity. Shortened links and links that obscure the destination page often lure people to click by piquing their curiosity. In one study, over half of the participants clicked links to malicious sites posted to Facebook because they wanted to see the content.[5]

The Damage: Even if the content on the other side of the link looks legitimate, Internet bad actors often use a disguised link that could put your device or your data at risk. Clicking on a link from an unknown source, shared on social media, or in shortened URL format could cause you unknowingly to download malware, put you at risk of becoming the victim of phishing, or infect your device with ransomware.

The Defense: A good rule of thumb is to be most suspicious of “clickbait” that is designed to lure you into following the link. If you’re suspicious of a link that purports to be from a person or company you know, you can hover your mouse over the hyperlink without clicking to view the link’s destination URL, as illustrated in the example below. Websites such as InternetOfficer.com and WhereGoes.com can show you where a link redirects to help you decide whether it’s a risky click.

CHECKING EMAIL LINKS: EXAMPLE

Hovering the mouse over the link shows the expected destination. In this example, www.fiduciary-trust.com matches the sender and is legitimate.

5. Ransomware

The Danger: Ransomware is a type of malware that encrypts all of the files on your device making them impossible to open – unless you pay a ransom, usually in bitcoins (an untraceable Internet currency) to obtain the passwords. Based on recent studies, it's on the rise – incidents of ransomware attacks have been increasing from five to eight times year over year.[6]

The Damage: The damage from a ransomware attack can be devastating. Not only are important files held hostage, but you could very well lose your photographs, movies, and other irreplaceable digital information. Because ransomware is one of the most lucrative digital crimes, authorities frequently recommend that victims not pay the ransom in an effort to make the endeavor less profitable for the criminals. And even if you do pay, there is no guarantee that you will even receive the unlock codes.

The Defense: Regularly backup all of your files to a separate location so that you can easily restore information that has been taken hostage. The best way to backup your information is to use an external storage device or acquire an automated service that periodically backs your files up to the cloud.

6. Recycling Passwords

The Danger: Logging in to an online account is faster and easier when you aren't trying to remember what you set the password to months ago. The frustration of remembering several different passwords leads a lot of people simply to pick one password and use it across all accounts—but the convenience often isn't worth the risk.

The Damage: Some Internet transgressors write programs repeatedly to guess your password until they access your accounts. The programs can often figure out weak passwords in a matter of seconds (Test the strength of your password at https://howsecureismypassword.net). If a cybercrook manages to figure out the password to one of your accounts, how many of your other accounts would be able to be accessed? For people who use the same credentials across several accounts (or worse, use one of the 1000 Most Popular Passwords), then one cybersecurity incident could turn into a wave of account breaches.

The Defense: Never reuse a password. While that may sound impossible, a password manager, such as LastPass or Keeper, can generate unique passwords for each of your online accounts and securely store your login information. Some password managers will even alert you to change the password proactively. In addition to using unique passwords, activating two-factor authentication provides added security for accounts with particularly sensitive information. Two-factor authentication generates a one-time-use code via an application or text message in addition to a password in order to access an account.

When it comes to cybersecurity, the adage holds true: An ounce of prevention is worth a pound of cure. Cyber attackers frequently look for known vulnerabilities to exploit. Taking the time to make it more difficult for a bad actor to target you could make all the difference. ■

"Data limits and poor cellular service can make public Wi-Fi tempting, but you could be putting your cybersecurity at risk"

[1] United States Computer Emergency Readiness Team Alert TA15-119A (April 29, 2015)

[2] IT Threat Evolution in Q1 2016, Kaspersky Labs

[3] Extreme Networks

[4] The Symantec Smartphone Honey Stick Project, Symantec Corporation

[5] Exploiting Curiosity and Context: How to Make People Click on a Dangerous Link Despite Their Security Awareness, Dr. Zinaida Beneson (July 30, 2016)

[6] The 2017 Endpoint Protection Ransomware Effectiveness Report. KnowBe4

NEWS AND NOTES

Rob Jeffers has joined as VP, Chief Operating Officer

Peter Whitlock and Rick Olney have both joined as VPs, Investment Officers

Hoa Nguyen has joined as VP, Head of External Managers

We are proud to sponsor the Peabody Essex Museum exhibit, *Ocean Liners: Glamour, Speed and Style*

Michael Costa has joined the NH Currier Museum's Board of Trustees

Comments or suggested future topics? Email us at perspective@fiduciary-trust.com

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FIDUCIARY TRUST EARNS "BEST INDEPENDENT TRUST COMPANY" AND OTHER AWARDS

We are honored to be recently named "Best Independent Trust Company" by the *Family Wealth Report* as part of the publication's 2017 awards program. This is one of a dozen accolades the firm has earned over the past year, reflecting our commitment our clients' best interests, personal service, disciplined investing and expertise.

The areas of recognition include:

Overall Firm

- Best Independent Trust Company – *Family Wealth Report*
- Best Trustee Service – *Private Asset Management* magazine
- Top 10 Financial Advisor in Boston – Advisory HQ
- A Best Advisor-Friendly Trust Company – *The Trust Advisor*[1]
- A Top Charitable Contributor in Massachusetts – *Boston Business Journal*

Officers

- Five Star Professional: Jody King– recognized in *Boston Magazine*
- Five Star Professional: Thanda Fields Brassard – recognized in *Boston Magazine*
- A Trust Industry Most Valuable Player: Michael Costa – *The Trust Advisor*[1]
- Leaders in Law: Robert Holdway – *Massachusetts Lawyers' Weekly*
- Top Women of Law: Anne Trinque – *Massachusetts Lawyers' Weekly*

Marketing

- Best Marketing or PR Campaign – *Family Wealth Report*
- Best Integrated Marketing Campaign – New England Financial Marketing Association

"We are proud to be recognized across so many categories over the past year," said President & Chief Executive Officer Austin V. Shapard. "These awards are the result of our continued commitment to partner our clients with talented, high-quality professionals who provide exceptional advice and personal service."

"As a well-resourced, nimble firm, we're able to deliver client experiences that set us apart from other firms," said Todd Eckler, Chief Marketing Officer. "Our distinctive approach has helped us achieve a sustained 98% annual client retention rate, add new clients this year and played a key role in our receiving this recognition."

We appreciate the relationships we have with our clients and other professionals, and look forward to continuing our pursuit of excellence in helping clients achieve their goals. ■

[1] Recognition for affiliate Fiduciary Trust of New England