notes from the Assabet

Vol. XVII No. 3

Third Quarter, 2019

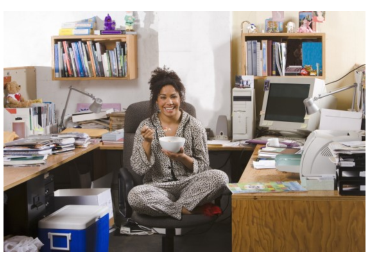
Home Sweet Office

Do you remember evaluating a new job offer? Along with responsibilities, title, salary, and benefits, you also considered location. How long and difficult would be the commute? Would the job require relocating your family? Would you have a comfortable private workspace? Were the building and the surroundings attractive? So much of your decision had to do with "where?."

"Where" is still a key question for a potential employee, but now one that might be expanded geographically to incorporate the employee's home. WFH ("Work from home" at least to some degree) generally includes other locations remote from the employer's business, because if you're not at the official business office, it doesn't much matter where you are. Once an unthinkable option, today 1/2 of the American workforce works remotely at least one day a month. Between 2005 and 2017, the percentage of employed workers who WFH has increased by +159%. Full time telecommuting rose from 4% in 2007 to 6% in 2011. The U.S. is not unique. One study shows that globally, 70% of professionals work remotely at least once a week, and 53% at least half of the week.

Technological advancements in communication have made WFH possible. Documents are shared. People send messages through email and text, or converse in real time via such connections as Skype and GoToMeeting. Project management tools allow for collaboration. Virtual Private Networks (VPN) make sending and receiving data through a private network securely available on public networks. After all, what percent of communication within a corporate home office is face-to-face?

Not only are WFH arrangements possible, they also are preferred in many circumstances. Employees tend to crave two benefits that improve work/home balance: no commute, and a flexible schedule. Planning your own time allows you to accommodate the schedule of family members as well as your own eccentricities. (Practice yoga at 3pm? Wear pajamas as 41% of women, and 22% of men do? Why not?!) WFH also eliminates constant distractions of the workplace which seems to multiply with business open floor plans. Remote workers who claim they can get more work done at home than at the office may be right. A Stanford study finds that they are 13% more productive.



WFH plans reflect different attitudes concerning an employee's use of time. While an hourly worker owes both effort and time, an exempt employee is obliged to do the work no matter what the time accrual. This distinction was not always well defined and applied. Even now, some bosses are particularly sensitive to the daily attendance patterns of even salaried workers, making WFH unlikely. Yet increasingly, employers see more advantages in permitting WFH. In addition to the boost in the worker satisfaction, loyalty and morale reported by Stanford, overhead expenses such as office space and use of utilities are lower, as is the amount of time wasted in non-productive meetings and water cooler socializing. Workers are less likely to call in sick, or to share germs with their colleagues. When location doesn't matter, companies can attract new hires from more regions, broadly expanding the worker pool.

Some WFH arrangements are more tightly structured than others, varying with number of days a month, and perhaps which days. The expenses of remote workers are met by their employer in different ways. Some furnish all the necessary office equipment, possibly including the rental fee for a digital office or a special chair. Others give a stipend. As desirable as WFH contracts may be for companies and their workers, sometimes it doesn't work out. IBM and Best Buy have called some

"Home" continued p. 2

Assabet Advisors LLC
customized investment solutions

Wayne Ushman

Robert Jacobsen

Assabet Advisors is an independent Massachusetts Registered Investment Adviser, seeking sound and customized investment solutions for high net worth individuals, businesses and foundations.

Focusing our business on larger portfolios, we are able to offer our clients highly flexible and personalized services.

We are among a limited group of fee-based advisors who are approved by Dimensional Fund Advisors for access to their funds.

1087 Main Street
Holden, MA 01520
Tel: 508-351-9666
Fax: 508-351-9689
wushman@assabetadvisors.com
rjacobsen@assabetadvisors.com

"Home" continued

staff from home back to the office, feeling that collaboration was insufficient. Some companies have learned that WFH programs require more attention than anticipated. Remote workers may feel estranged. Perhaps video technology for staff conference calls, a digital mentor program or even a remote water cooler meeting would make a difference. Some firms, when offering lunch to office staff, also send restaurant gift cards to remote staff.

Employees too may have difficulties with WFH. Maybe they underestimated the adjustment time. Perhaps they failed to establish a working discipline that included a distinct home office, or a routine which includes breaks for such things as lunch, or recreational activities. Highly gregarious people may need to balance the isolation by bringing a laptop to a coffee shop, or hitting the gym. Others may be distracted by the options or annoyances existing at home: household chores (31%) TV (26%) errands (29%) pets (23%)

Maybe some distracted workers at home need to realign their consciousness by dressing work-casual, not jammies. Maybe some managers need to overcome a mindset that is skeptical about the work dedication of remote employees. In any case, WFH isn't for everyone. It requires study, planning and effort on both sides. With any luck, the reluctant manager may notice increased productivity, and a lack of contention in the office. The company's brand may be improved by getting credit for progressive thinking. And, the worker who had a strong reluctance about WFH, may experience less stress and a better work/home balance.

A. Adamczyk, "What Your Company Should Pay For if You WFH," TwoCents.LifeHacker.Com, 2/23/18, Sarah White, "Working From Home Can Benefit Employers as Much as Employees, Monster.com, B. Skwarecki, "Structure Your WFH Day With These Routines," Lifehacker.com, 2/20/18, Katie Johnston, "Working From Home, bostonglobe.com, 8/1/19, Ryan Browne, "70% of People Globally Work Remotely at Least Once a Week," MAKE IT, cnbc.com, 5/30/18, H. Parsont, "Top Reasons to Let Your Employees WFH, Torchlighthere.com, 6/28/17

Confefe Enigma

For all of its serious concentration, the investment world often exhibits a surprisingly flippant nature. Slang words come in and out of the financial vocabulary, market research sometimes examines "fun facts," and analysts' reports often are droll in tone. So last month, when JP Morgan rolled out a new index, people wondered whether or not to take it seriously. Its name referred to a famous typo found in a May, 2017 tweet by the world's most notable tweeter. The "Volfefe Index," was named by merging "volatility" with "confefe," an apparently fanciful word created in error. It's a legitimate index, at least for the present.

The fundamental premise of the Volfefe Index is that Mr. Trump's tweets can trigger significantly measurable volatility in short term Treasury yields, particularly those with 2 to 5 year rates. These movements have an impact on the broader financial markets, including stocks. Index researchers focus on "market-moving" tweets, those which are followed within 5 minutes by a spike in volatility of a $\geq$0.5 basis point net move in the 10 Year Treasury Bond yields.

Since his first year in office, Trump's tweeting has altered. First, it has increased from an average of 5 tweets daily to 20 a day in September, including a greater number of "Retweets." Second, subjects have shifted from criticism of individual corporations or stocks, to more emphasis on more market-moving topics such as trade or monetary policy. Key words which invoke greatest sensitivity currently include China, Billions, Great, Democrats and Products. Several patterns have been observed. When the number of daily tweets is higher than average, maybe suggesting a particularly stressful day at the White House, the average return is minus 9 basis points. A day with minimal tweeting tends to have positive returns averaging +5 basis points. Early in September, Bank of America/Merrill Lynch noted that on days when Mr. Trump is off Twitter, the stock market has better returns than when he's tweeting.

However, none of this research is about evaluating his activities. Its aimed at exploiting the benefits of tracking the effect of Trump tweets on interest rate movements. A major use is in managing interest rate risk through Swaptions, options permitting the owner of an interest rate swap to make an underlying swap, exchanging a fixed interest rate for a floating rate, or vice versa. Swaptions are priced relative to the expectation of movements in interest rates.

An early observer of Trump's tweets predicted that they would exhibit a "diminishing return of influence." This has not occurred because his focus was on stock performance whereas Treasury bonds have not lost sensitivity over time.

"JP Morgan introduces Volfefe Index to track Trump's volatile tweets," Associated Press, 9/9/19, B. Kollmeyer, "JP Morgan made a Volfefe index to track how Trump tweets move the bond index," marketwatch.com, 9/9/19.J. Barro, "Here's why JP Morgan's Volfefe Trump twitter index matters," nymag.com, 9/9/19, J. Wise, "Trump tweet and stock sentiment," Seekingalpha.com, 2/7/17, P. LaMonica, "Stocks that Trump trashed on Twitter are soaring," money.cnn.com, 1/11/18, T. Ponich, "Volfefe Index: Trump 'confefe' meme spawns new market volatility measure," commdiginews,com, 9/9/19

Economic and Financial Overview

Our domestic economy continued to grow in the third quarter, but with signs of weakening. The slowdown in global manufacturing reached the U.S.. The employment picture remained positive, but job data, and average hourly earnings, were both less than expected. Trade tensions caused business investment to diminish. While corporate earnings were boosted by tax cuts in 2018, the growth rate has slowed. The auto industry is facing difficulties, especially at GM whose United Auto Workers went out on strike on September 16.

Consumer spending stays robust, currently supporting 70% of the U.S. GDP. In addition to rising stock market volatility, and an inverted yield curve, all of these factors are typical of the late stage in a business cycle, or even of a precursor to recession. That may not occur, or it may not be imminent. However, extreme domestic and geopolitical tensions could build pressure.

The large cap domestic stock market maintained its positive returns with the S&P 500 rising by +1.7% for the quarter, bringing the YTD return to +20.6%. However, small stocks, measured by the Russell 2000 index fell by –2.4%.Q but +14.2& YTD. Mid-caps were neutral as the S&P 400 returned –0.1% Q3, +21.9% YTD. Market segments which benefited from interest rate cuts were most successful, including real estate, utilities, and consumer staples. Equity valuations now exceed historical averages. International equities fared less well, with negative performance for the quarter. The MSCI EAFE index of developed market stocks lost –1% but rose by +13.3% YTD. The MSCI EM index of emerging market stocks fell –4.2% in Q3 and +6.2% YTD.

In the fixed income market, debt with the least risky options showed the best performance in the quarter. The Barclay's Aggregate Bond Fund gained +2.3% Q3, and +8.52% YTD, surpassing the high yield index at +1.2% Q3 and +11.41% YTD. The ten year Treasury bond yield dropped to 1.68% at quarter end, producing an inverted yield curve. Debt with negative yields constitute a growing percentage of the debt market.

Investors were pleased by the Federal Reserve's short term interest rate drop of 0.25%, leaving the target range at 1.75% to 2.00%. The Fed intends to grow the balance sheet by purchasing more bonds. However they are concerned that market expectations are not aligned with policymakers' outlook. With rates so low, the Fed has little room in which to respond to more slow-

Forget the Gold Watch

Early retirement, in the 50s, or even 40s or 30s, is not a fantasy for those in the FIRE (Financial Independence/Retire Early) movement, it's a serious objective. While the norm in our country is to be employed until eligible for Social Security and Medicaid, FIRE advocates observe strict strategies to save aggressively (perhaps 50% of income) invest in low-fee equity index funds, and monitor their progress as they approach the goal. They can practice extreme frugality and can defer instant gratification. This lifestyle requires people with unusual discipline and vision. While a majority of Americans spend excessively on items or activities promoted by our culture, the FIRE folks have analyzed where their money should go. You can be sure that they don't have credit card debt or make hasty purchases. They're virtually "unamerican"!

FIRE's rejection of the conventional pattern of work until middle age, has earned criticisms. Suze Orman challenges its feasibility. Many critics insist that FIRE folk have financial advantages such as high-paying jobs or no children to support. Some complain that by quitting work early, they are playing the system by getting better premium subsidies in health care, or collecting food stamps, for example. In large part, the objections suggest sour grapes as Americans can be sensitive about their financial situation. Culturally materialistic, they are ashamed of what they earn, what they don't have, and their own poor money habits.

They don't understand the different perspective of the successful FIRE people, which is exceptionally self-directed. More than most others, they recognize that they have some control over their lives. They don't share the standard definition of "early retirement" which is leaving work to do whatever. They don't retire early because they hate their jobs, but because they want to do other things. These folks know what they want and why. This buys them motivation and control. Some will work later on...if they want. They know the difference between not working, and not counting on an income for what they want. Few of us have that freedom because we've established a life in which income is critical.

In "retirement," the FIRE group doesn't suddenly live like the seniors in the investment brochures: golfing, biking, sailing in luxurious seaside locations. They've learned to plan, to manage money, and to spend time and money only on things that they value. They're willing to trade more control over their lives for fewer things that money can buy.

J. Clements, Why does the early retirement movement have so many haters?" marketwatch.com, 6/29/19, K. Wong, "The basics of FIRE," two-cents.lifehacker.com, 11/6/17, Tanja Wester, "Ten critical questions to answer before you make the leap to early retirement," ournextlife.com, E.Rosenberg, "Does FIRE Early Retirement movement make sense for you?," thebalance.com, 12/10/18, M. Singletary, "3 Myths about this early retirement movement," washingtonpost.com, 12/3/18

Andrew Jackson Impersonation

Counterfeiting is a significant threat to our financial system, so much so that the punishment for such a crime is up to 15 years in prison. Among the approximately 32 laws regarding currency, are those regulating the use of imitation currency. For example, Hollywood is restricted from using prop money, or illustrations of currency, in filming, while real currency is permitted. Prop currency for filmmakers that conforms to all the regulations is a legitimate industry. Reproduction of currency notes for illegal purposes, is a fine art, always being upgraded with technological advances. Our government's efforts to protect against successful distribution of fake notes has to keep pace.

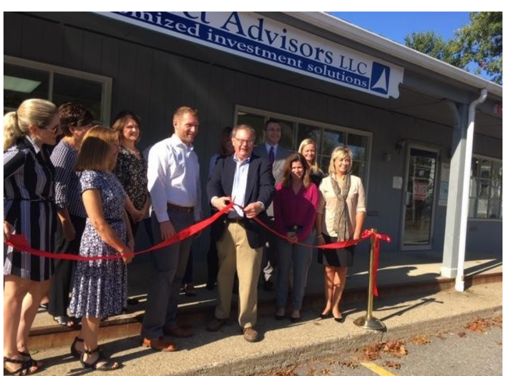
However, detection is still the primary deterrent. Investigators continuously research new methods to make copying difficult and counterfeiting discernable. Just for fun, pull out a twenty dollar bill. (Depending upon the series of the particular "Jackson," you'll be looking at updated features for a certain version.) Likely you'll feel the raised print down Andrew Jackson's coat. On the lower right corner of the note's face, the striped 20 also is raised, and uses color-shifting as well. As you tip the bill, the number alters from copper to green. A watermark of Jackson's face is apparent to the left of his portrait on the front, and to the right of the White House on the back. Because the watermark is embedded in the bill, it shows on both sides. Visible, when held up to the light, is a "security thread" to the left of President Jackson. This is a strip of plastic embedded in the paper, on which is printed repeatedly, in tiny text: "TWENTY USA."

Micro-printing makes currency very difficult to copy. Among the features studied in detection is the clarity of print. Counterfeit bills often have blurry borders of text, and less distinct, or uneven seals. Comparing individual bills of the same denomination and series can be effective. Fake bills may not be easily identified on their own, but may be detectable in contrast. Employees taught to check the validity of bills may also use any of a variety of products designed to expose counterfeiting.

Look closely at the White House side of the bill. On both sides, you'll see tiny yellow rings, the 0 part of 20. These represent another deterrent that uses steganography, an encryption technique of data hidden within data. They form sets of 5 rings in a pattern, which prevent counterfeiting by making it impossible to print a copy of contemporary currency on a color laser printer. Called the EUrion Constellation, they are used in currency around the world, and may be adapted to the designs of individual bills, musical notes or flowers, for instance. If you try to scan and copy your Andrew Jackson bill, the printer detects the pattern and refuses to replicate the images. Trying again won't prevail, so take our word for it. Some researchers claim that persistence might shut your machine down. This pattern of symbols was introduced in about 1996 and remained highly secretive.

A related technology that prevents copying of money is another CDS or Counterfeit Deterrence System: a form of digital watermark as used by Adobe Photoshop. Upon a direction to copy and print a bill, Adobe responds, "This application does not support the editing of banknote images." People who want to adjust and print currency for artistic reasons are frustrated by this and some claim to have found a go-round. One effort using a little ink-jet printer succeeded in producing a small number of poor copies, and a prison sentence for the culprit.

E. Mazza, "Here's why your scanner freaks out if you try to copy money," Huffpost, 6/22/16, V.Patil, "Why can't you photocopy currency?" www. scienceabc.com, J. Ilao, "How to detect counterfeit money," fitsmallbusiness.com, 8/1/17, C. Chan, "Here's the real reason you can't photocopy money,"6/15/16, M. Kuhm, "The Eurion Constellation," Computer Lab, U. of Cambridge, "The Eurion Constellation is what makes photocopying illegal," Curiosity.com, 7/6/16.



Assabet Advisors, LLC

Ribbon Cutting

September 26, 2019