



Majestic Oak Financial
A Registered Investment Advisor

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Welcome to spring! While it's still waiting to be filed away, please don't forget to send me a copy of your 2017 tax returns. Being able to review them allows me to plan more effectively for you.

How Secure is That Password?

Username and password do not match. Ugh! Pull up the page-long list of websites and passwords, find the right one and hope it works. What?! Oh darn, caps lock is on. One more try and I have to reset. This is me. It's probably you too. And as I review that ever-lengthening list of websites, usernames and passwords, I think, "This is ridiculous! Is all of this really necessary?"

I set out to find an answer to that question that does not involve fourth-year college calculus. Fortunately, I came upon an article at www.betterbuys.com/estimating-password-cracking-times/ that made some sense of all of it for me. (And was pretty fun to play with!) The answer is "yes and no."

What matters most when it comes to creating passwords is three-fold: whether it's a word found in the dictionary, and if not, its length and complexity.

Hackers look to crack passwords in two ways. The first is the "dictionary attack". Hackers bet on us being lazy and so they have a list of standard passwords, like "qwerty", and common words in the dictionary. It takes current computing power less than a second to run through all of these combinations.

Then we move to the "brute force" attack. It starts with "a", goes through the uppercase and lowercase alphabet, numbers, and symbols. Another character is added and all possible combinations are tried, then a third character and so forth. Here's where size matters. A 7-letter character password like "abcdefg" takes just 0.22 milliseconds. Mix that up a bit to "hjewflz" and it takes 8 minutes and 54 seconds. However, add just one more character to "abcdefgh" and time increases to 3 hours, 51 minutes and 15 seconds. "abcdefghijk" – 11 characters – takes over 7 ½ years. Chances are nothing we have is worth that much computing power.

Combining alpha and numeric characters takes us even further. "1234567890" takes under a second as it's so common. "A23456789" is estimated to take 20 years. Better still, add in those symbols. No hacker is going to work that hard. BUT, hackers know we're substituting "@" or "a" or "3" for "E". So merely using a dictionary word with a common symbol substitution is on their easy list. Think % and #.

Even if you come up with a password that theoretically takes a millennium to crack, it's in your best interest not to use that password for everything. If somehow a hacker cracked this password, it would be the key to everything that is you online. But do you need a unique password for every single website onto which you log? Probably not. For me personally, I think the answer is to pare down my list to a handful of long, complex passwords that I can remember and change periodically.

1st Quarter 2018 Market Performance

| Index | 3/31/18 Ending Value | 1Q 2018 Performance |
|--------------------------|-------------------------|------------------------|
| Dow Jones | 24,103.11 | <2.49%> |
| S&P 500 | 2,640.87 | <1.22%> |
| NASDAQ | 7,063.44 | 2.31% |
| Lehman Aggregate Bond | 107.25 | <1.90%> |



Your Individual Investment Reports

The following reports for 1st Quarter 2018 are provided for your review:

- **1st Quarter 2018 Portfolio Performance** – Compares the month-end percentage performance of the S&P 500 & Lehman Aggregate Bond Index with your portfolio performance.
- **1st Quarter 2018 Portfolio Performance & CPI** – Performance of your investment portfolio compared to the rate of inflation as measured by the Consumer Price Index (CPI) for both the since inception period of your accounts and 1st Quarter 2018.
- **Asset Summary** – Current market value of each asset within your accounts as of 3/31/18
- **Investment Billing Statement** for the 2nd Quarter 2018**: Investment advisory fees for the period of 4/01/18 through 7/31/18 (based on 3/31/18 values). *This is an informational billing only.* Your account is automatically debited unless other arrangements have been made.

Please remember that this investment reporting is for informational purposes only. You should also refer to the monthly account statements you receive from TD Ameritrade Institutional.

If you happen to know anyone who might benefit from the services I provide in assisting you in managing your investment portfolio and reaching your financial goals, I would enjoy speaking with them. Don't keep me a secret! ☺ And as always, please do not hesitate to contact me if you have any questions about your reports or wish to discuss any other financial matters.

Sincerely,

Anna M. Popke, CFP®

*Index performance is provided as a benchmark only. The performance of your individual investment portfolio will vary from that of any one index. Past performance of an index is never a guarantee of future results.

****PLEASE NOTE:** Clients who hold "cash reserves" within their brokerage accounts will have slightly different portfolio balances depicted on the Statement of Assets Summary and the Billing Statement. This is because "cash reserves" are excluded from the advisory fee. However, cash held awaiting investment in the upcoming quarter *will* be subject to the normal quarterly fee.

Investment Advisory Fee Calculations:

Fees are paid in advance on the 7th (or prior closest business day) of the month following the end of the quarter. The amount due is calculated by applying the prorated annual fee percentage to the previous quarter-end account value(s). Fees are further prorated for accounts opened after the beginning of a new quarter. Fees may be paid directly from the investment account(s) or consolidated and paid from a specified account. Money market/cash reserves are excluded from totals. Statements have been prepared by Majestic Oak Financial from information provided by TD Ameritrade and while deemed reliable, are not guaranteed.