OCTOBER 2020
client letter

The Day You Became a Better Investor

This client letter is really a reminder to myself to appreciate the blocking and tackling of sound decision-making. It may help others who want to improve as investors, but the lessons are generalizable to knowledge workers of nearly any stripe.

It's a reasonably safe assumption that you bathe regularly and brush your teeth. You probably floss, comb your hair, and apply concoctions to make yourself smell good. Personal hygiene is evidently essential to humans; the U.S. cosmetics market generated $90 billion in revenue in 2018.

Yet there's a type of hygiene that I bet you're ignoring. Most people are.

There are numerous methods to prepare yourself for investment success. You can earn a CFA Level 3 or get your MBA. You can learn accounting, business models, Porter's Five Forces, unit economics, and discounted cash flows. You can study market structures, Greek-letter-infused options, and historical booms and busts. You can learn about returns on capital, share buybacks, and reinvestment runways.

Don't get me wrong, all of the above are table stakes for investment competence.

But what if I told you there's a whole world of considerations that even professional investors are neglecting?

I'm speaking specifically about your *investment hygiene*. It's the habits, routines, and mindsets that make up your investment process. It's all the stuff outside the 10Ks, earnings calls, and slide decks. The rest of this letter will discuss best practices and methods for improvement.

For starters, we can split the hygiene universe into a matrix with four categories: internal vs. external, and mental vs. physical.

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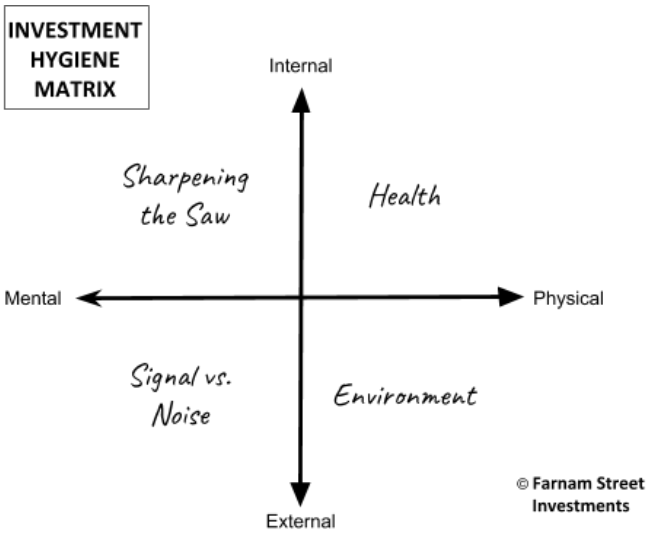


Internal + Physical = Health

Think about the last time you had a nasty cold. You probably felt tired, foggy-headed, and low energy. The last thing you wanted to do was put in a solid day's work. Or even worse, can you imagine making a big decision when you were hiding from the world under your covers?

Let's borrow Munger's principle of inversion: imagine feeling the exact opposite of sick. Your body is coursing with vibrance and strength. You feel clear-headed and purposeful. You draw in a deep, confident breath and smile.

Which of these physical states would you imagine giving you the best odds at making a sound decision? You already know the answer, yet when was the last time you checked for a peak state before placing a buy or sell order? Sadly, due to unexamined habits and a mismatch between our genes and our modern environments, it's likely more of us exist toward the sick side of the spectrum. We've grown numb to our ailments. When you get yourself to full health, you realize it's frankly an unfair advantage to be above that mental fog. Frequent readers may remember we wrote about health as an investment differentiator in a previous client letter.

Researchers have found our physical state dramatically affects our decision-making. The wetware of our brains is based on electrical impulses and interacting chemistry. The balance of brain chemicals like serotonin, dopamine, oxytocin, and endorphins are radically altered by our sleep, diet, exertion, and stress. These chemical building blocks act as lenses through which we interpret the sensory data flow of our worlds.

☐ **Get the unfair advantage of health and make decisions with peak energy.**

Even our posture impacts our chemistry. Researchers had people assume either a confident or submissive posture for just two minutes. In the confident posture group, testosterone levels increased by 20% and the stress hormone cortisol went down by 10%. Conversely, after the submissive pose, testosterone went down by 25% and cortisol up by 15%. Your posture is affecting your interpretation of the world. Did you sit up a little in your chair after reading this?

☐ **Be aware of body language.**

"All life is an experiment. The more experiments you make the better."
— Ralph Waldo Emerson

I'm hesitant to offer any definitive health prescriptions—everyone has opinions and we're all different. What will work is unique to you, so my suggestion is to experiment until you find what makes you feel fantastic.

Charlie Munger gave us some hint at what not-to-do when he said, "Three things ruin people: drugs, liquor, and leverage." (I would posit that we can substitute "stress" for "leverage" in this instance.)

☐ **Find what works for you so you feel fantastic.**

External + Physical = Environment

In the previous section, we explored how we can control what's going on inside our bodies to give us a chance at peak decision-making and investment results. Now let's look outside. Literally.

Existing within four walls is a new phenomenon for our species. The U.S. EPA estimates Americans spend 93% of their time inside. Yet your distant ancestors spent most of their time outside. And they walked. A lot. Current estimates are they covered between 6 to 16 km (4 to 10 miles) per day to make their ancient livings.

It's little wonder great minds throughout history from Aristotle to Einstein to Steve Jobs credited long walks for their creativity. The famed mathematician, Andrew Wiles, proved Fermat's last theorem in 1995. He

solved a fiendishly difficult math riddle which had stumped literal geniuses for more than 350 years. His advice is to get outside, but don't forget your pencil: "When I'm walking I find I can concentrate my mind on one very particular aspect of a problem, focusing on it completely. I'd always have a pencil and paper ready, so if I had an idea I could sit down at a bench and start scribbling away."

The Japanese have a practice called *shinrin-yoku* which translates into "forest bathing." A 2016 study found forest bathing "significantly reduced pulse rate and significantly increased the score for vigor and decreased the scores for depression, fatigue, anxiety, and confusion." Being in nature is the rough antithesis of social media. Make sure you defrag your mental hard drive with plenty of time in the verdant outdoors.

☐ Get outside and walk, preferably in nature.

Your work space deserves thoughtful environmental design. Winston Churchill wisely observed, "We shape our buildings and afterwards our buildings shape us." You can tinker to find what works for you, but I personally like a lot of natural light and quiet background music when I'm doing heads-down deep work. My office is also overstuffed with Warren Buffett and Berkshire paraphernalia. It serves as a constant reminder to imagine myself in my hero's shoes. #WWWD

☐ Thoughtfully design your environment.

In 1729, French astronomer Jean-Jacques de Mairan made a wild discovery. He noticed that the leaves of plants opened in the morning to catch sunlight and closed at twilight to protect themselves overnight. Seems like an obvious adaptation, but here's where it gets interesting. The plants did this same opening and closing routine, even when hidden in total darkness inside his cabinet. It wasn't the light that triggered the plant's actions. The implication was that a humble house plant has a built-in clock.

Humans are equally equipped. Our clock sits inside our hypothalamus and is called the suprachiasmatic nucleus. It's a cluster of 20,000 cells--the size of a grain of rice. Our internal clock regulates hormones, changes our body temperature, and helps us fall asleep and wake up over a 24-hour cycle.

Your clock affects more than just how you feel. It affects your performance. Researchers found that time-of-day effects can explain 20 percent of the variation in human output. "The performance change between the daily high point and daily low point can be equivalent to the effect on performance of drinking the legal limit of alcohol," says neuroscientist Russell Foster. You may be "*drunk-working*" right now depending on the time of day you're reading this.

Our chronotypes change as we age, showing up as cliches: young kids tend to wake up at ungodly early hours, teenagers stay up all night and can't do anything before lunch, and the elderly are up before the sun and ready for dinner at 4pm, Matlock at 6pm, and bed at 7pm.

It's not just about energy or feeling mentally sharp. *Vigilance* is a more apt description. At our peak, our vigilance is highest. This limited reserve helps our brains solve analytical problems and block out distractions. We stay vigilant to the task at hand rather than bouncing around inside our scattered minds.

Depending on the task, vigilance can be an unwanted hindrance. An unconstrained mind is the ticket to outside-the-box thinking. We need a soft and diffuse gaze, not laser focus. Insights usually come when we're distracted, with fewer inhibitions and less vigilance. #showerthoughts

Here's our math wizard Andrew Wiles again:

> *"Leading up to that new idea there has to be a long period of tremendous focus on the problem without any distractions. You have to really think about nothing but that problem--just concentrate on it. Then you stop. Afterwards there seems to be a kind of period of relaxation during which the subconscious appears to take over, and it's during that time that some new insight comes."*

Each of us has a physiological chronotype which creates our own personal daily pattern of **peak** (alert, high energy, high vigilance), **trough** (tired, slow, easily distracted), and **rebound** (renewed energy, but limited vigilance). About 75% of us who are early risers and middle-packers follow this archetypal peak-trough-rebound pattern. The remaining 25% are night owls and follow a different pattern: rebound-trough-peak.

To figure out your chronotype, you can use Daniel Pink's handy questionnaire: http://www.danpink.com/MCTQ

The most important thing you can do is protect your peak. Save your highest-leverage, heads-down work for when you have your fullest reserve of vigilance. Don't fritter it away with administrative or mundane tasks.

☐ Be aware of *when* you work.

I'm a fan of the "Pomodoro Method." Set a timer for twenty minutes, close the distractions of email, social media, and a thousand browser tabs, and focus on your most important task. When the timer goes off, take a guilt-free break. Get some water, stretch a little, close your eyes and let your brain drift into neutral.

After five minutes of letting go, set the timer and get back to the grindstone. After three or four cycles, reward yourself with a walk outside. Don't be surprised if inspiration strikes when you're out there. You'll be amazed at what you can accomplish within these structured cycles.

☐ **Set a timer.**

Internal + Mental = Sharpening the Saw

Mental errors are born from our blindspots. We make mistakes when we miss something important. One way to make sure you don't make the same investment mistake twice is to use a checklist. Every slip-up becomes a new checklist item for the next evaluation. If you're really smart like Mohnish Pabrai, you'll catalog the mistakes of others and learn vicariously through their painful losses. There are simply too many different permutations of investment mistakes and mental models to keep straight in your head. Get them into a checklist and out of the working RAM of your brain.

Checklists have been used to great effect in other industries like airlines and medicine where real lives are at stake. A well-crafted checklist adapts to your investment style over time and is the quickest path to improving your process. The sooner you start failing and cataloging, the sooner you'll get good.

☐ **Use an investment checklist**.

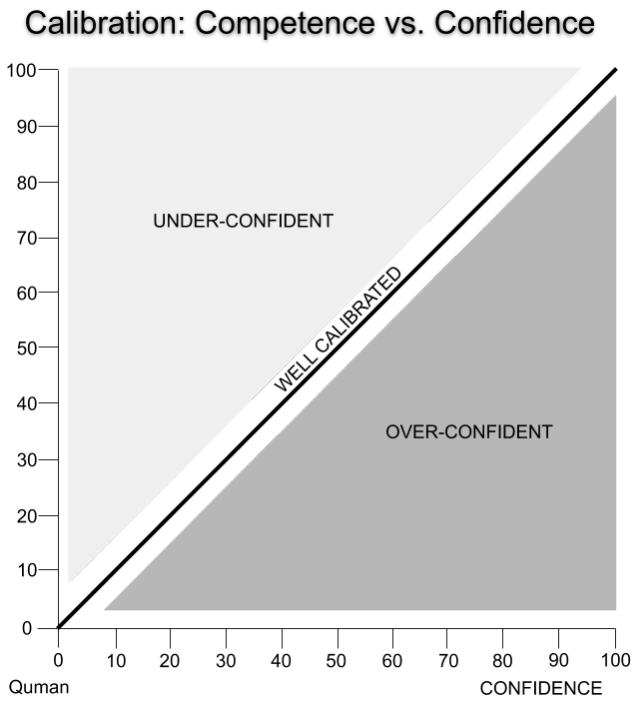
Researcher Robin Hogarth divides the world into *kind* and *wicked* learning environments. Kind learning environments link feedback directly to the appropriate actions or judgments and are both accurate and plentiful. Think about riding a bike: you learn quickly (and painfully) when you make a mistake. There's no ambiguity in crashing and skinning your knee.

In wicked domains, feedback from your actions and decisions is poor, misleading, or even missing. The investment world is about as wicked as it gets. You can be right on your analysis and something unforeseen (like say, a global pandemic) produces an awful result. Perhaps even worse, you could conduct shoddy analysis and yet watch your stock rocket higher for reasons you'll invent after the fact (maybe global pandemics produce healthy stock market returns?). People are at their most dangerous after dumb-luck smiles upon them. Perhaps unsurprising, separating luck versus skill in the investment world is fiendishly difficult. Fortunately, a weatherman of all people has the answer.

In 1950, a statistician-turned-meterologist named Glenn Brier developed a simple methodology for scoring predictions. The score is based on two factors: the probability assigned to a particular future outcome, and whether it actually happened. Combining these two is called a Brier Score in his honor. It relays the accuracy of your predictions, as well as a calibration of your confidence about the prediction. Check this out for a fun calibration test of your own confidence versus accuracy.

Determining if you are a good investor (or not) can take literally a decade or longer if you're only observing annual returns. We need to measure ourselves in a different way to speed up the process. One smart hack is to make predictions about the companies you're interested in and then track the accuracy and your confidence. For instance, you could record that you think there's a 70% chance that $AAPL's earnings will be 10% higher in 12 months. You'll know in a year if that turned out to be true or not, independent of where the stock price goes. You could make five similar predictions about a company's fundamentals for every one return data point you get in a given year. This can shrink the decade-plus evaluation period considerably, and give you a sense of your own luck versus skill.

Brier scores are the missing element to close the feedback loop and tame the wicked investing environment into submission.



☐ Make and track probabilistic predictions and get calibrated.

If 2020 has taught us anything, it's that markets can whipsaw our emotions harder than the most mercurial of lovers. Do you remember the fear permeating March when the S&P 500 plunged more than 25%? How about the euphoria of August as we made new highs?

Chances are, we're all misremembering key elements of the past. Human memory is based on story-telling. Our memories are only as reliable as the last version of the story we told ourselves. That was good enough for our ancestors to economize brain power and survive on the linear savannah. Yet our story-telling memories can be a liability in a complex world where the arrows between cause and effect are suspect.

When DNA testing was first introduced, Innocence Project researchers reported that 73 percent of the convictions overturned through DNA testing were based on eyewitness testimony. One third of those overturned cases rested on the testimony of two or more mistaken eyewitnesses. "I could have sworn I saw…"

The good news is we have a simple fix for our shoddy memories. Nobel prize winner Daniel Kahneman has the answer:

> *"Go down to a local drugstore and buy a very cheap notebook and start keeping track of your decisions. And the specific idea is whenever you're making a consequential decision, something going in or out of the portfolio, just take a moment to think, write down what you expect to happen, why you expect it to happen and then actually, and this is optional, but probably a great idea, is write down how you feel about the situation, both physically and even emotionally. Just, how do you feel? I feel tired. I feel good, or this stock is really draining me. Whatever you think.*
>
> *The key to doing this is that it prevents something called hindsight bias, which is no matter what happens in the world, we tend to look back on our decision-making process, and we tilt it in a way that looks more favorable to us, right? So we have a bias to explain what has happened."*

☐ Keep an investment journal.

The investment world is full of the ones that got away. "Why didn't I buy $AMZN at IPO?! And of course $GOOG was going to be a home run!" We could build a killer portfolio with all of our sins of omission.

"The main mistakes we've made, some of them big time, are ones when we didn't invest at all, even when we understood it was cheap. We're more likely to make mistakes of omission, not commission."
-- Warren Buffett

Hold on a sec, though. Is it possible we're fooling ourselves? Perhaps we're only remembering the rocket ships to wealth that we didn't climb aboard. There are probably just as many rockets we didn't get on that exploded on the launchpad, but they don't spring to mind as easily. Near misses are quickly forgotten.

We need a better system to track all of the investments we've rejected. Call it your "anti-portfolio." It measures the true opportunity cost of the investments we didn't make. I suggest recording the ideas you said no to and periodically checking in on the whole basket. You'll get the full picture, not just the acutely painful misses that stick out in your memory.

"I would argue that one filter that's useful in investing is the simple idea of opportunity cost."
-- Charlie Munger

☐ Track your opportunity cost.

The real magic gets unlocked when you start coding the reason *why* you said "no" to a particular idea. This feedback will give you a sense of how your filters are impacting your investment process.

Warren Buffett famously has an inbox on his desk labeled "Too Hard Pile." The box serves as a reminder to only search for obvious investment opportunities he readily understands. But especially when you're just starting out, it's difficult to figure out how hard is "too hard." What if you find your *Too Hard Pile* of rejects is consistently shooting the lights out? That could be the nudge you need to put in a little more effort on ideas. Perhaps you're giving up too early, and there's investment gold waiting for you if you dug just a little deeper.

The same logic can be used to assess your rejection filters for leverage, business quality, and valuation. How else will you ever know if your rejection filters are poorly calibrated unless you keep score of what you discarded and why?

☐ Calibrate your rejection filters.

I have an exercise I borrowed from Charlie Munger to help me from repeating mistakes. I call it a "Rub My Nose In It" session. Others call it a postmortem.

"I like people admitting they were complete stupid horses' asses. I know I'll perform better if I rub my nose in my mistakes. This is a wonderful trick to learn."
-- Charlie Munger

Performing a serious study of your mistakes can help lessen the sting of an unsuccessful investment--at least you learn something. A postmortem is also a great way to evolve your checklist. It's counterintuitive, but a mistake caught, documented, and processed can be more valuable than a success early on in your investment journey. Lose the battle to win the war.

It's not well-known, but famed UCLA coach John Wooden was an early sports stats-geek. He kept meticulous notes on his players and spent considerable time pre-planning and post-examining his practices. He would follow up every practice with pages of notes: "we need two more minutes on this drill, less on another." Full post-mortems. He was maniacal about optimization, which allowed him to get better with more data over time. You can do the same with your investment process with a little thought.

☐ **Conduct postmortems and rub your nose in your mistakes.**

External + Mental = Signal vs. Noise

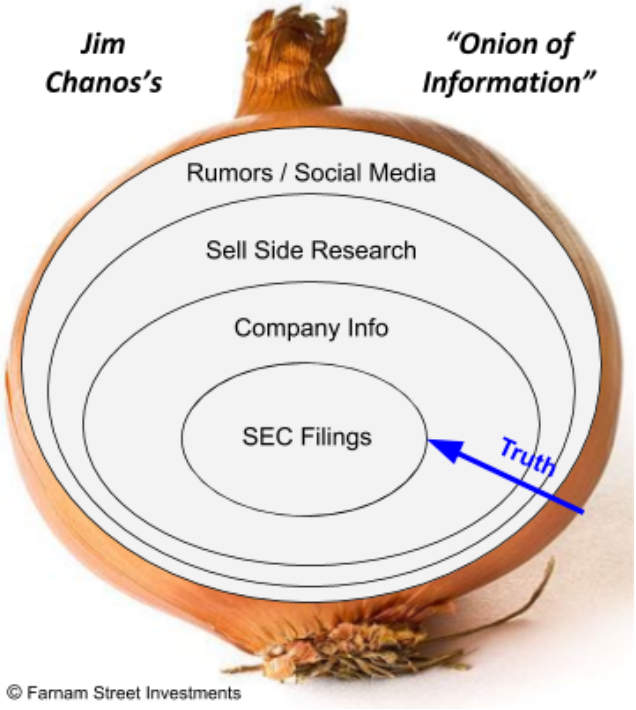
Investing is not a game where the guy with the 160 IQ beats the guy with a 130 IQ. Rationality is essential. What you need is emotional stability. You have to be able to think independently."
-- Warren Buffett

Markets are complex adaptive systems. There are millions of buyers and sellers, interpreting and acting on billions of data points any given year. You'd never try to guess the next move of an ant colony, the shifting of storm clouds, or the sudden break of a school of fish. And yet oceans of pointless ink are spilled predicting the market's next move, and providing explanations for what just happened.

I'm giving you permission now to ignore all that noise. Put yourself on an information diet.

Famed short-seller Jim Chanos describes research as an information onion. The layers move from closest to the truth out toward the noisy outer shell:

SEC Filings - what the company has to tell you.
Company Information - slide decks and conference calls that represent what the company wants to tell you.
Sell Side Research - what others (often conflicted) want you to know.
Rumors / Social Media - what the crowd thinks.



Spend your valuable research time where the signal-to-noise ratio is the most favorable. That means more 10Ks and less twitter.

☐ **Go on an information diet.**

Nassim Taleb has a thought experiment that really opened my eyes. Imagine an investment with a 15% return and 10% volatility. Over one year, you'd have a 93% chance of success. Could we all be so lucky! However, that same investment would only have a 54% chance of success on a given day, and a 50.17% of being up any given minute. It would effectively be a coin flip on whether you felt good or bad if you spent all day focused on minute-by-minute ticks of the tape.

We all share a cognitive bias called "loss aversion." It means that losses hurt at about twice the magnitude as gains feel good. On a dollar-for-dollar basis, pain is twice that of pleasure. Back to our coin flip: if you were to check your stock price every minute, you would get roughly twice as much pain as joy. If you were to only look once per year, you'd have a 93% chance of feeling good.

Your psychological experience of ownership can be directly affected by how often you check the price. Warren Buffett has observed that stocks don't care who owns them and that we should be willing to have the stock market close for ten years if we're going to own something for more than ten minutes. No one is saying this is easy; ignoring the market for long periods can be incredibly difficult in practice. But hanging on every tick is a recipe for heartache, even if your long term outcome is favorable.

☐ **Don't check your stock prices too often.**

Final, Most Important Takeaway

"It's waiting that helps you as an investor, and a lot of people just can't stand to wait."
-- Charlie Munger

As we've detailed, the world of investing is particularly ripe for inducing brain damage. The environment is noisy, groupthink is common, overconfidence runs amok, and the stakes are high. Only sex, drugs, and rock'n'roll are more emotionally charged than money. The fear of missing out is strong and it goes against our human instincts to do something different than the crowd.

There's one overarching goal to all this investment hygiene: bolstering your patience.

From optimizing the chemicals in your brain, to taking walks, to the desk you sit at, to the investment journal you keep, to your information diet, to minding your filters, it's all about cultivating the advantage of patience.

"The stock market is a device for transferring money from the impatient to the patient."
-- Warren Buffett

A deeper pool of patience is the biggest edge you have over professional managers, and you can extend that advantage through your investment hygiene.

☐ **Be patient.**

☐ **Start tracking and improving your investment hygiene today.**

As always, we're thankful to have such great partners in this wealth creation journey.

Jake

Investment Hygiene Checklist

- ☐ Get the unfair advantage of health and make decisions with peak energy.
- ☐ Be aware of body language.
- ☐ Find what works for you so you feel fantastic.
- ☐ Get outside and walk, preferably in nature.
- ☐ Thoughtfully design your environment.
- ☐ Be aware of when you work.
- ☐ Set a timer.
- ☐ Use an investment checklist.
- ☐ Make and track probabilistic predictions and get calibrated.
- ☐ Keep an investment journal.
- ☐ Track your opportunity cost.
- ☐ Calibrate your rejection filters.
- ☐ Conduct postmortems and rub your nose in your mistakes.
- ☐ Go on an information diet.
- ☐ Don’t check your stock prices too often.
- ☐ Be patient.
- ☐ Start tracking and improving your investment hygiene today.