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April 2, 2019

Dear Limited Partners,

We're running through a charred landscape now. It's what's left after things burned to the ground three months ago, when financial markets dislocated from reality and panic set-in. Any talk of recovery is immediately met with skepticism as the lingering smoke deters scarred investors whipsawed by the volatility. Our footfalls echo as it's nearly empty with nary a flora or fund manager in sight. With capital having fled, producers must now fend for themselves, forced to live within their means as the days of generous lending terms and liberal equity infusions have ended. The few capital allocators remaining have now turned to suffocate producers, barring any notion of production growth and punishing those who try. It's less capital discipline than capital disciplined.

For OPEC+, the cabal has refocused and recommitted to taming production, the financial pain too difficult to bear. With gritted teeth, they've begrudgingly cut production and exports to customers despite politics, higher customer demand, and their own desire to capture Iranian market share relinquished because of US sanctions. Instability in Venezuela and Libya also threatens production and both have no clear end in sight. For the Saudis, economics now Trumps politics, so there's little reason to shrink the widening supply gap. Let the world figure it out. You'd think it's all for one and one for all with this group, but as any scary movie teaches us, one person's production shortfall increases another's chance of survival. So restrain and maintain because oil tankers that don't sail today are barrels that don't arrive tomorrow.

Thus, our mantra for this quarter was . . . just . . . keep . . . running. Progress, however incremental, builds upon itself, and set-backs, great or small, improves the process. Embrace the grind. We ignored those who claim clairvoyance about the Q4 financial crash, of how we could have or should have sold and then rebought with the clarity afforded by hindsight. That's never been our process nor our strategy. We continue on our run, steady and undeterred, on a marathon road that we firmly believe will lead to an inevitable conclusion. Focus on the road and focus on moving forward because if we do, we will eventually get there. As we've done so this quarter, we're beginning to see thin blades of hope push through blackened soil. Looking further out, we're seeing greener fields to come.

Our Quarter

The fund outperformed the S&P 500 this quarter allowing us to recover some of the losses experienced at the end of Q4:

Date	Open Square Fund I Performance YTD*	S&P 500 Performance YTD	Outperformance / (Underperformance)
January 1 – March 31	44.35%	13.65%	30.70%

* Net of Management Fees.

Interestingly, although oil prices have begun recovering, most energy equities have yet to follow-suit. Investors overall remain skeptical and a bit skittish of the energy sector. Fortunately, a few of our

holdings performed well, and even our Apple shares recovered some lost ground as investor optimism rose on the back of some new service offerings (we'll provide an update on Apple later in this letter).

When Embers Spark a Rally

While our performance was satisfactory given that oil prices are just beginning to recover, the truth is oil equities have lagged. After falling ~40% in Q4, we anticipated that oil prices would have to recover soon. The pace and intensity of the price collapse was largely a result of the financial market decoupling from the physical one. Despite the price action and OPEC overproduction, inventories stayed flat in 2018, and with lower oil prices to begin 2019, we predicted that the price collapse would have far reaching unintended consequences. In our Q4 letter we stated

“Watch now as lower oil prices melt 2019 producer capital budgets. Watch as decline rates take their toll and supplies tighten further. Watch as the market wonders in short order why prices are rising again. The factors that forced oil prices to nearly double on the back of falling inventories remain. It’s delusional to think that lower prices today won’t have severe repercussions as half of the world’s suppliers now plan to over-tighten the market, and the other half falter at growing production enough to stem declines. In the real world, fundamentals matter, and in the real world, the physical market will discipline the financial one. The CTAs may have lit the fire, but we’re left surrounded by the embers of unintended consequences. As the world opens the door to 2019, watch for the backdraft that’s to come.”

Embers of unintended consequences . . . well flame on because we’re starting to see the real world implications from the Q4 sell-off. In Q1, international oil prices (i.e., Brent) increased by 28% and US prices (i.e., WTI) increased by 33%.



Notably the price recovery is occurring during the slow season when demand declines because of refinery maintenance. As refiners wake from their seasonal slumber, we anticipate inventory draws to accelerate and oil prices to stair step higher. As a group, however, oil equities have lagged the oil price recovery.

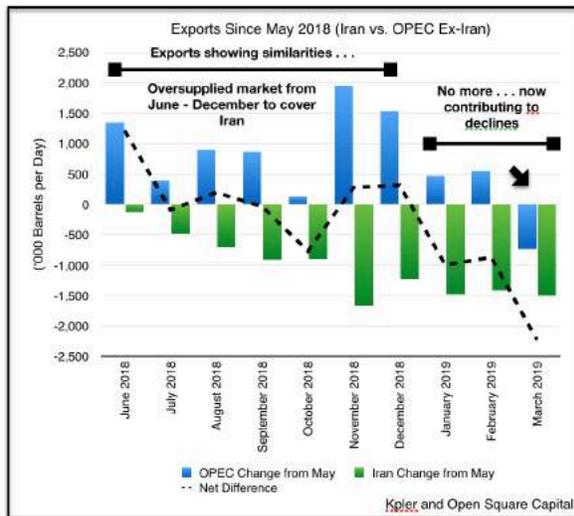
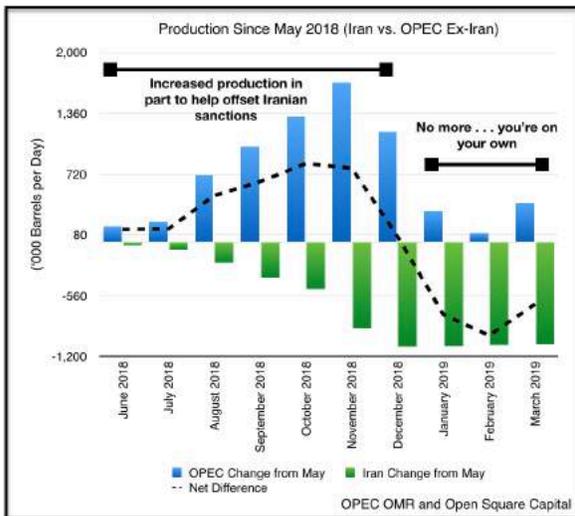


We believe this has to do with investor skepticism about the recovery and the industries' ability to generate decent returns at sub-\$70/oil. Eventually this will revert as oil prices climb and the operational and financial leverage embedded within these companies kick-in. Inevitably, the public or private market will correct this imbalance.

So while we'll accept our Q1 performance, we think it's just beginning. The same fundamental factors that led to the oil price spike in 2018 haven't disappeared, they've only intensified. We've never thought that the majority of the Q4 fall was justified from a physical inventory perspective, and if we are correct, the next two quarters should bear that out as we recover. For oil bulls, it may seem like 2018 was a wasted year; another in an already long multi-year thesis. Yet we've never viewed it so. To us it was a confirmatory year because if massive oversupply still resulted in flat inventories, what becomes of inventories when the oversupply is removed? This time around, the recent price increases have less to do with financial wagering, and more to do with tighter inventories as refiners compete for the limited supplies. Put simply, the physical market is and will guide the financial one higher.

Winter of Discontent

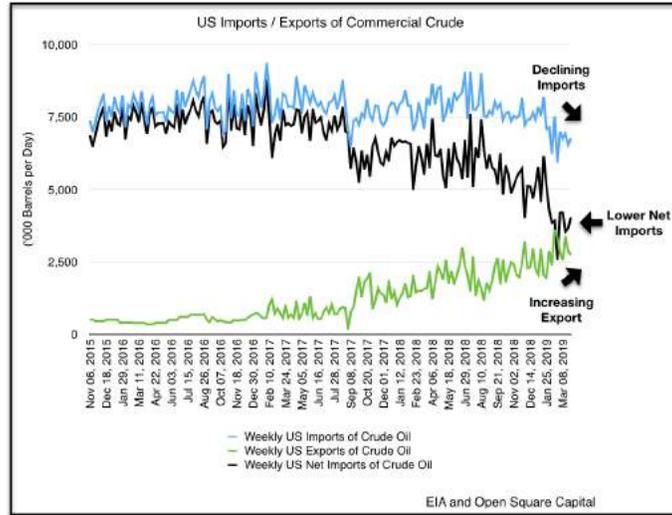
In Q1, we began to see the impact of OPEC+'s December agreement to remove 1.2M bpd of oil from supplies. Once the Saudi's realized the US sanctions wouldn't reduce Iranian oil production to zero given waivers, it was faced with an oversupplied market of its own doing which helped send prices crashing. Although it could do little about the financial induced sell-off, it could at least control the physical side. Thus, Saudi Arabia has led the way with aggressive cuts, lowering its own production from a December high of 11.0M bpd to a 10.0M bpd average in Q1 (exports also declined by 1M bpd). Coupled with declines from Libya (military strife/security issues) and Venezuela (US sanctions on President Maduro's regime and intermittent blackouts) OPEC production as a whole fell, and the partial Iranian sanctions enacted in November began to be felt. With the Saudi's now looking out for their own economic interests, the oil market was left short.



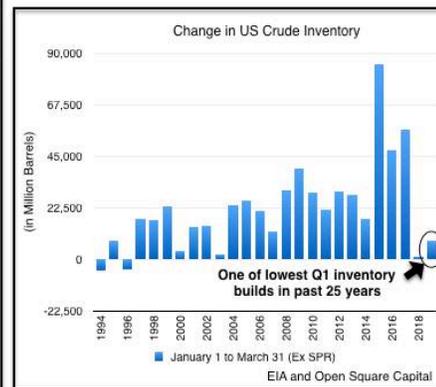
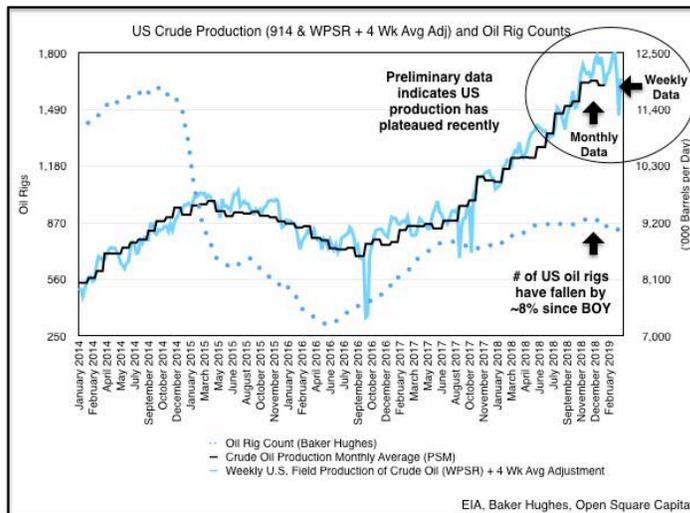
Deliberately restraining production and lowering exports has become the goal for 2019, and to maximize their impact, the Saudi's focused their efforts on the US market where weekly inventory reports have an outsized effect on oil prices. Exports since December have been materially lower, and based on tanker

tracking, March exports continue to plumb the depths. Note this point. March exports are April/May imports and Saudi Arabia has given clear indications that April exports will be similar, effectively closing out H1 2019 with constrained supplies.

With OPEC tightening oil supplies, refineries began pulling barrels from the US. Higher US exports are a byproduct of the global demand for oil as refineries reached out to insure uninterrupted supplies. WTI and Brent prices remained attractive throughout Q1 (with an almost \$8-\$10/spread), incentivizing customers to take advantage of the arbitrage. Consequently, US exports rose to its highest levels ever.



Lower imports/higher exports have also coincided with restrained US production growth. From a production standpoint, the Q4 price collapse couldn't have come at a worse time for US E&Ps because it occurred precisely during the capital budget planning season. Subsequently, most E&Ps announced conservative 2019 drilling budgets amid renewed investor pressure for companies to live within cash flow. Growth driven by outspend was shunned, and a focus on profitability in the lower price environment meant many companies were now publicly exposed as productivity issues rose to the forefront. Overall, plateauing US production growth coupled with lower net imports meant US inventories uncharacteristically failed to build materially during this low demand season. For now, we see little changing.



At this stage of the oil cycle, we don't need to make heroic assumptions. We still assume that the US will grow YOY by 1.5M bpd, despite what we see are capex budgets that are hard pressed to collectively reach that. Let's assume that productivity gains will somehow mask the lower drilling volume even with parent/child well interference issues that indicate newer wells produce 20% less than their original parent wells. Heck, internationally we'll even play along and accept that Brazil and Canada will grow production (despite Brazil having just reported lower YOY February production figures of 2.5M bpd when the forecast was 2.8M bpd) and Canada curtailing production under its Alberta mandated cuts. It's just not enough, not with OPEC+ cutting production, global demand increasing, and non-OPEC/non-US production falling.

Supply and demand equations are giant Jenga towers, and in the end the world needs what it needs. As we keep removing supply pieces haphazardly, eventually the global market becomes further unbalanced and the shortage worsens. We simply haven't "felt" it yet as refineries run low during maintenance season. Once that ends as we head into summer, watch the whole tower sway under the weight of false assumptions and OPEC's hand.

Apple

We last discussed Apple in our 2017 Q1 letter. Since it's been two years, let's provide you with an update. As background, we've owned Apple shares since the fund's inception nearly 3.5 years ago. At the time, Apple was trading at ~\$116/share, and today it's selling for about ~\$200/share. Along the way, we've collected \$9.28/share in dividends, and remarkably total share count has shrunk by over 17%, falling by almost 1B shares to 4.77B shares. With fewer shares, we're now enjoying a bigger slice of Apple's earnings pie. Apple comprises about 15% of our portfolio, and we've maintained that weighting fairly consistently. Our baseline investment thesis remains unchanged:

- 1) Hardware replacement cycle maturing, providing a large recurring revenue stream;
- 2) Monetization of the ecosystem via broadening and deepening of Apple Services;
- 3) Improving cash flow generation by shifting revenues from singular transactions (hardware sales, etc.) to recurring subscription/licensing based revenue streams with higher profitability;
- 4) Continuing share buybacks shrinks the outstanding available shares;
- 5) Free optionality on numerous tangential themes in other industries, including healthcare, entertainment, vehicles and media; and
- 6) . . . it's silly cheap on almost any metric.

The company's size and success hasn't insulated its shares from short-term volatility. Within the past year, Apple's shares have reached \$230/share and fallen to \$142/shares. Much of the concerns today centers on slowing iPhones sales worldwide, market competition, challenges in India, and even general apathy. For us, we've always maintained that iPhone sales will slow as Apple has already dominated the high-end handset market. Further growth is more difficult to come by as Apple has intentionally sought to maximize profits and not market share.

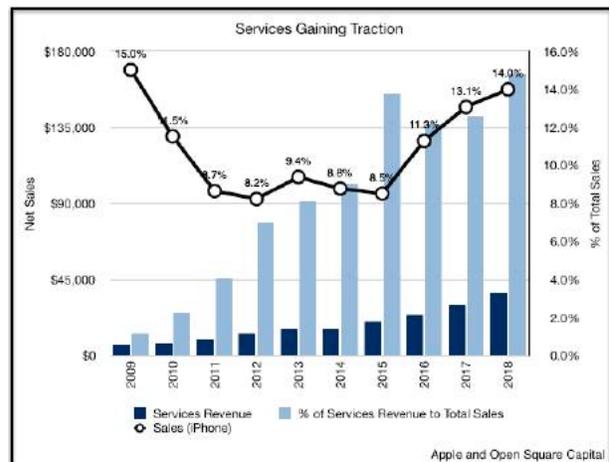
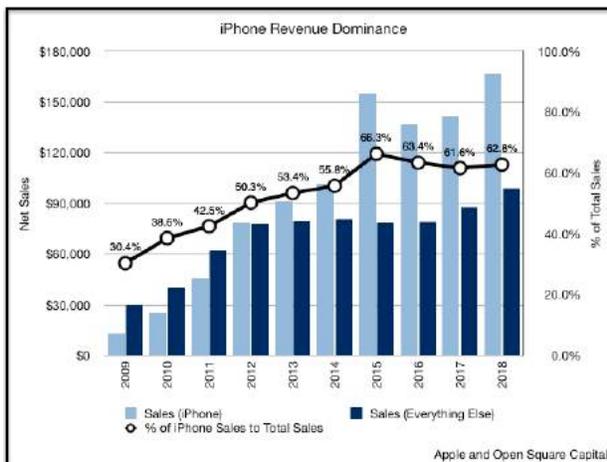
In the next few years, we anticipate the wider availability of faster 5G wireless service will catalyze a large upgrade cycle, but until then, iPhone/hardware sales will ebb and flow as the upgrade cycles play out. Even a mature market, however, translates to tremendous recurring profits as people will naturally replace their iOS devices with more current versions when their devices break, degrade, etc. Additionally, slower growth is still growth, and a stable and growing base of iOS users means the ecosystem becomes a riper asset to monetize.

Apple’s deliberate focus on the high-end market gives its ecosystem a tremendous advantage today. By focusing on the well-heeled or those willing to spend more, Apple’s 1.4B users outspend their Android counterparts by almost 4:1 for services. Take a moment to appreciate that. Although two people can own arguably the same advanced smartphone, one will spend 4 times more for services in their ecosystem. So if you’re a developer, producer, or media executive, can you afford not to play in the iOS ecosystem? For most product developers, the answer is no, and thus Apple becomes your digital *Les Clefs d’Or* concierge, a high-end guide that curates, recommends and provides you with access to an ever expanding digital world, but one that values your privacy and exercises discretion while doing so.

Monetizing the Ecosystem

For Apple the next 5 years of growth will come from monetizing this ecosystem, which is why we believe this company is on the cusp of a major transition/expansion into new industries. Such an endeavor would normally be fraught with risk for other companies, but Apple already has a devoted following, and most of the services introduced are ancillary to its business and an evolution of its offerings.

It’s taken a few years, but the transition is now beginning as the baton for future growth is passed from hardware to services. Although iPhone sales still represent the lion’s share of Apple’s total revenues (>60%), services has steadily gained traction. In 2018, services generated more than \$37B, or about 14% of Apple’s total revenues (i.e., 1/4 the size of iPhone’s revenues).



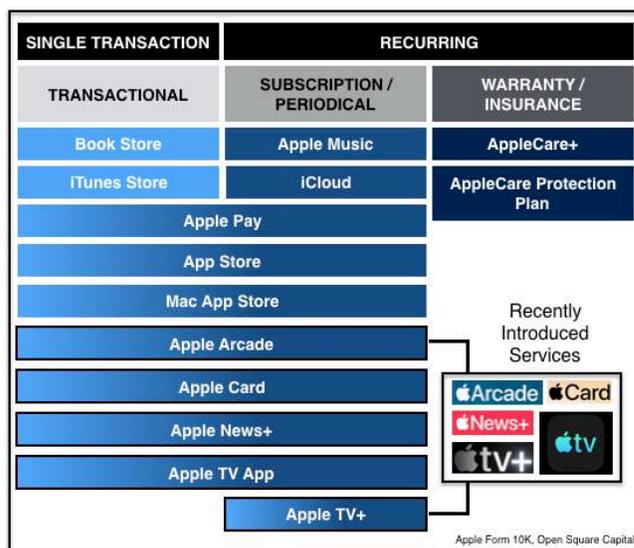
Despite its smaller size, Apple’s Services packs twice the punch. Given how easily services scale (i.e., adding a new subscriber to Apple Music doesn’t increase costs materially), this segment is almost twice as profitable as hardware sales. In its most recent report, the company revealed for the first time that Apple Services had margins of ~63% vs. ~34% for Apple’s hardware products. Thus, as services revenue grows faster than hardware sales, we anticipate Apple’s overall margins to improve. So not only will Apple begin to grow top line sales, but concurrently expand bottom line margins, an unusual feat given a \$940B company.

Currently, about half of Apple’s services revenue comes from the App Store and Google’s Traffic Acquisition Costs (“TAC”) payments (i.e., every time you search for something using Siri or Apple’s search bar, it routes that query to Google). In CY 2018, TAC payments totaled ~\$9.5B, and we anticipate

it will grow at >25% for the next few years. Similarly the App Store should grow around 15% a year for the next few years. So with these two core drivers, services revenue has a clear path to grow to \$50B in the next two years. After that? It'll be up to Apple's newest offerings.

Showtime

At a recent presentation held on March 25th, the company unveiled a host of products in entertainment (Apple TV App and Apple TV+), news (Apple News+), video games (Apple Arcade) and financial services (Apple Card). We've categorized them in the following manner to give you an idea for how we think about these services:



You'll notice that as Apple builds out its offerings, the focus shifts from singular transactions to generating recurring revenue in large markets. Some of the markets will certainly be more challenging to penetrate. For instance, Apple TV+, Apple's new streaming service available in the fall, will encounter stiff competition against entrenched rivals and upstarts such as Hulu, Disney+, Netflix, Amazon Prime, and HBO. The streaming video on demand space isn't exactly a green space. Much of its success will depend on the quality and popularity of its programming. Nevertheless if Apple Music was able to become the #1 streaming music service in the US since its launch only three years ago, it bodes well for how quickly/willing Apple's users are to adopt a new service. We've made a few projections based on what these categories could generate, but it's early days, so we'll firm those numbers up once launched.

The Digital Wallet

While it's great that Apple will provide more entertainment options to us, we're more intrigued by how the company is increasingly retaining its customers, and among the five announced offerings, the Apple Card could be the most impactful. From a high level, McKinsey estimates that global digital commerce volume (i.e., online and in-app purchases) will exceed \$6 trillion by 2022, and mobile commerce will comprise 70% of those sales. Digitization provides two-sided benefits, it lowers the cost of each transaction and increases customer satisfaction. It removes friction at the point of sale and enhances

security for its users. As the shopping experience migrates increasingly to the digital world, who controls the digital wallet holds the keys to the electronic kingdom.



Loup Ventures estimates that Apple Pay has ~383M users (i.e., ~43% of the active iPhone base), but 88% of Apple Pay users are international vs. 12% in the US even though 21% of iPhone users are in the US. Adoption rates vary by country, but some countries like China have effectively gone cashless. According to iResearch Consulting Group mobile payments in China totaled \$9T. In the US? \$112B. One reason for the lower usage in the US is because US public transit systems have been slower to accept digital wallet payments. Recently NYC and Chicago transit authorities announced plans to accept Apple Pay, so waving your phone while running through a subway turnstile will soon be a reality, speeding your journey and Apple Pay's adoption. On the whole, digital wallet penetration in the US is projected to grow at a 45% CAGR, and reach \$400B in annual flows by 2022.

Introducing an Apple Card will help accelerate this trend as credit cards are used in about a third of all transactions in the US. To receive the highest 2% rebate using the Apple Card, you'll also need to use it with Apple Pay (i.e., either swiping at the point of sale in a store or using it to pay when shopping online). Apple Pay's revenue is still small, comprising just 1-2% of total services revenue, but growing rapidly. As transactions grow in volume (1.8B in the December 2018 quarter alone, a 3x growth from last year), so too will revenues. Admittedly, we anticipate the Apple Card won't move the needle much as we estimate Apple will earn approximately the same ~0.15% per transaction, but that's not what's important.

Encouraging Apple Pay adoption is all about changing consumer behavior so that eventually using a digital wallet becomes habitual and entrenches Apple as a toll taker for commercial transactions. Furthermore, it increases customer captivity because trust is the handmaiden of loyalty. As technology companies embrace services, privacy and security become increasingly paramount, and with Apple's suite of biometric protections (i.e., two-factor identification using Touch ID, Face ID, password or PIN), the more you trust Apple with your personal financial data, the more you'll trust Apple with all your data. So once you're used to storing financial data on Apple's devices, perhaps you'll trust Apple to store your healthcare data, especially as your Apple Watch and iPhone track your activities. Ultimately, healthcare is one of the holy grails, a \$3.5T industry ripe for disruption. We're in the midst of a deeper dive into opportunities in this space as a next potential investment theme for the fund, and will update you on our findings in later letters, just know that Apple is a multi-prong investment for us.

As consumer behavior, data/data analytics and advancements in software/hardware intersect, this is where it gets interesting. Introducing products in one category can facilitate entry into another, and as Apple evolves its services offerings, we anticipate Apple products will eventually envelope our lives. We needn't be patient investors while we wait because Apple is buying back shares and paying dividends while we wait. All we have to do is be sensible and let the tree bear fruit.

Parting Thoughts

Recently the news have been filled with stories about a college admittance scandal. Allegedly some parents helped their children cheat on college entrance exams and falsified athletic records to gain admission into selective universities. The story made for rich media fodder because some of the parents are celebrities. What's interesting about this story isn't the cheating, frankly that happens everyday only unexposed. Rather what's interesting is how far we've come as a society in coveting the participation trophy; to some, what was valueless has become valuable.

Today, these trophies are awarded casually in athletics/academics (e.g., my daughter's elementary school hands out achievement awards to every student). While presenters couch the awards as tools for building self-confidence, anything unearned rarely does. Viewed cynically, the awards are really hedging transactions, insurance in the event psyches (adult/child) are wounded if a youngling fails to be decorated.

For the parents embroiled in the scandal, we call the college acceptance "participation trophies" because let's face it, this was never about furthering academic achievement. The students were all academically mediocre to begin with, so the acceptance was less about advancing lifelong learning than participation and vanity. Now ostensibly some parents were willing to sacrifice coin and reputation out of a sincere desire to help their children succeed. Yet even if the scandal hadn't come to light, would they? When the results become more important than the process to achieve them, can true success be sustainable?

Each of us instinctively knows the difference between awards stemming from true effort and outperformance versus those acknowledging mere presence. What makes trophies and medals worth their weight is how we attain them. It's the celebration of the process, the person enduring it and the results that come from it. The process of persevering, overcoming challenges, and maintaining your unwavering determination. Sacrifice, dedication and achievement is what imbues awards with meaning. Notice for instance Nike's motto is "Just Do It" and not "Just Get It". It's still in the public zeitgeist today because we celebrate the "Do", and when no one's looking, you're working.

There's a natural inclination for parents to want their children to struggle less, to remove burdensome obstacles before they present themselves, but doing so means we intentionally deprive them of opportunities to problem solve and build resolve. Said another way we deprive them of opportunities to gain wisdom and build confidence, handicapping them with our good intentions. Surely that couldn't have been the goal of the parents at the outset, could it? Perhaps Douglas Malloch said it best in his poem written a century ago:

"Good timber does not grow with ease;
The stronger wind, the stronger trees,
The further sky, the greater length,
The more the storm, the more the strength.
By sun and cold, by rain and snow,
In trees and men good timbers grow."

What is true then is true today, and it's well worth understanding.

So how does all of this relate to investing? Well nothing and maybe everything. We get it. For investors it can be all about the results. As Bill Belichick, the decorated head coach of the New England Patriots says "do your job." In the end, results matter because that's our job, to outperform our benchmarks, and that's what investors should judge us on.

We'd venture to say that just as important as results, is how you get there . . . the process. Process matters. Our results, our performance, will be the byproduct of the quality of our judgments along the way and how we handle the cognitive biases as human beings while we do so. How does one variable influence others and how do new facts influence our thinking are important to understand because if we generate returns haphazardly, in the long-run we don't believe successful investing can be sustainable.

You should want and expect your fund managers to adhere to an explainable process, which is why we endeavor to walk through our thinking in these letters. Why we buy certain assets, and why we sell or don't sell at certain times, those reasonings are key. As my daughter recently reminded me, it's not always just about the results, how you get them matters:

Me: How come you were upset earlier?

Addy: Because you said I did my homework wrong.

Me: Uh . . . but you did.

Addy: You didn't have to say it like that.

Me: Well how else would you like me to say it then?

Addy: Maybe if you said "hey let's try this one together . . ."

Me: Instead of saying it's wrong? Hmm . . . that actually might be a better way to say it, thanks for telling me. You know it's my first time being a dad, so isn't it good we figure this stuff out together?

Addy: Daddy . . . do . . . your . . . job.

Me: I really shouldn't have taught you that.

We'll get back to work now.

As always thank you for investing and please let us know if we can explain any of our ideas above in more detail.

Sincerely,



Nelson Wu
Managing Director