Letter to Clients
September, 2018

Design Within Reach

"Form follows function—that has been misunderstood. Form and function should be one, joined in a spiritual union."

Frank Lloyd Wright

Over the years, we've spent a lot of time expounding on our philosophy (which remains unchanged), our discipline (ditto), and our process (ditto, albeit with some tweaks here and there). We've also been very up-front about our aversion to following the crowd and our intent to do as many things differently as we can that make rational investing sense: we don't give a fig about what other investors do or what stocks comprise the S & P 500 and what industries it spans. Our ultimate goal is to invest in good, resilient companies at bargain prices and to own them until high price or a degradation in quality dictates their sale. What we've been less vocal about—though no less attuned to—is how we design and then construct our portfolio with an eye toward not only generating performance but also managing risk. Marshfield's process tends to build in resilience at the individual company level and at the portfolio level as well. It is the joint impact of our largely independent decisions, as interwoven with our price discipline, that imbues the portfolio with a kind of tensile strength, resulting in an integrated whole that is greater than the sum of its parts.

For purposes of better conceptualizing this, we find it useful to think of our portfolio as having a series of separate constitutive elements that contribute to its overall design. Ultimately, it's the interaction of these elements that yields a more shock absorbent overall structure.

The Foundation

We rely on some basic tools of structural "engineering" at the outset with respect to such elements as number of stocks, position sizes, and the like. These rules are limited in number, principally because we understand them to be somewhat arbitrary and we believe that piling rigid rules—even largely defensible ones—on top of one another only serves to amplify randomness. Thus, at the foundational level of portfolio construction, we apply just a few limitations intended to establish a starting point from which good performance can (we hope!) emerge, bounded by some basic guardrails to keep risk in check. We intentionally limit our portfolios to around 20 stocks, based mostly on our experience, having tried smaller and larger numbers of holdings over time. Holding many more than 20 serves to diminish the impact of our best ideas and holding many fewer gives undue influence to our worst ideas.[1] When we buy an opening position in a stock, we size it at 3% of the portfolio. It's big enough to matter and focus our attention but not so big as to unduly harm the portfolio if we've made a mistake (which—spoiler alert!—happens from time to time). As we learn more about a new company, having lived with it for a while, we're more comfortable adding to the investment if the price gets lower (increasing the position size in additional 2% increments up to 7% of the portfolio, depending on the size of the discount). In extraordinary circumstances (where, for example, a stock we know and like well is trading at a drop-dead discount), we might consider up to a 10% position, but our willingness to do that is almost as rare as a unicorn sighting.

At the upper end of things, we have a per-stock limit of 15% of the stock portfolio. That gives the stock room to run but is a bright line buffer against allowing even our most successful investments to consume too much of the portfolio. That does not prevent us from downsizing a holding before it reaches that upper limit when there is a clearly identifiable source of risk that causes us concern, as with **Yum! Brands** when it still owned all of its China business. And that's it for bright-line numerical rules governing the structure of the portfolio.

The Ceiling

Thus, even though we specifically gravitate toward good companies that have "give" built into them, we still don't let them grow to stratospheric heights. Given the limitations inherent in the valuation process—specifically, the inescapable fact that valuations are not point estimates but rather represent a range of likely values spanning from pessimistic to optimistic—we refrain from targeting a hard-and-fast numerical rule dictating the point at which we will sell an overvalued stock. Instead, once a stock reaches what we believe to be the reasonable practical boundary marking where it is more likely to backslide as its price climbs than it is to continue to outpace its valuation, we start to pare it back.[2] We sometimes will sell the entire position at that point if we have material reservations about its business model or management, as in the case of **US Bancorp**.

[1] This is not without academic support, although a definitive answer continues to be elusive. Famed investor (and father of value investing) Benjamin Graham advocated holding between 10 and 30 stocks to produce optimal diversification. Later research has been all over the map but skews closer to 30, though some scholars suggest 50 or sometimes more. The idea is to minimize non-systematic risk, and we think that knowing our companies extremely well and having an uncorrelated portfolio help combat those risks.

[2] We've called this point 150% of intrinsic value in the past, but we're reluctant to use that number outside our own shop because it fails to convey the extent to which our valuations are less optimistic and more wary of management's puffery than those of other managers.

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Along similar lines, we're often asked whether we have any rules regarding industry or sector concentration. And our response has typically been a variant of Justice Potter Stewart's "I know it when I see it" definition of obscenity. While we're not averse to holding more than one company in a sector or even an industry, we would be loath to expose the portfolio to an outsized risk born of an exposure to a particular swath of the economy—we're just reluctant to assign a hard-and-fast number to that concept. In this context, it's important to remember that we sometimes—though less often than one might think—find cheap companies in multiples; if an industry is out of favor, more than one company is typically affected. And while we always opt for the best of the bunch, sometimes two companies make that cut[3]. Indeed, many years ago, we were accused by a waggish client of hewing to the Noah's Ark theory of investing: always holding two companies in each of our industries. Today, the fact that we own **Visa** as well as **Mastercard**, Yum! as well as **Chipotle**, and **AutoZone** as well as **O'Reilly** is perhaps evidence of that tendency and also a testament to the fact that when we understand and like an industry, we're willing to double down when the price beckons.[4] But would we permit any one industry to overtake the whole? Never—just don't ask us what that means in terms of a rigid percentage amount.

The Masonry

While these rules provide a rough framework, the ultimate architecture of the portfolio is determined by the brick-by-brick investment decisions we make. We've talked a lot over the years about the kinds of companies we find attractive; we won't review the bidding here—except to highlight one critical element that we believe provides the mortar holding the individual "bricks" together: resilience. Resilience is an important through-line for our companies, the attribute that more than any other allows the portfolio as a whole to retain some stability during turbulent times while also maintaining the ability to take advantage of opportunities to grow and thrive.

But what exactly do we mean by resilience? As we use the term, it describes the ability to withstand pressures from unanticipated or atypical stressors, such as the financial crisis of 2008-2009 or the Japanese earthquake of 2011, which disrupted global supply chains far beyond Tohoku and its tectonic plates. Resilience exists independent of what one might think of as a good business. While its building blocks are similar: strategy, management, and culture, it represents a fusing of those attributes specifically in the service of addressing crises (or even just hiccups) of both internal and external origin. It invokes flexibility, the capacity to adjust course midstream, as well as a certain toughness

[3] Notwithstanding our willingness to sometimes own two stocks in a single industry, our portfolios have historically been characterized by low correlations among their component holdings.
[4] And speaking of correlations, note that the three industries these companies represent—payments, restaurants, and auto parts retailers—each has very different drivers of demand and margins from the others, so they provide some counterweight to one another.

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of spirit. Most critically, it means that a company is built not only to survive disruptions but ideally to affirmatively succeed when circumstances are less than perfect.

This, of course, means different things for different industries. It may mean, for a manufacturing company such as **Cummins**, that it sites its factories closer to its customers than seemingly necessary in a world replete with sophisticated supply chains and logistics. It may mean, for a homebuilder like **NVR**, that it eschews the opportunity to benefit from appreciation in land prices in favor of the flexibility conferred by owning options on land rather than the land itself. Having suffered a near-death experience in the 1990s, it clearly prepares for a world in which periodic financial and housing crises can arise, even if that means leaving some return on the table during the good times. The case is much the same in property casualty insurance, where resilience means strong and effective cycle management, a practice that allows an insurer to move capital from one line of business to another depending on the point in the insurance cycle. **Arch Capital**, for example, pursues a well-honed strategy of shifting capital to those areas where fear predominates and away from those where complacency has set in. One of its current cash cows, mortgage insurance, benefitted from dislocations in the marketplace following the housing crash; yet Arch foresees a day, perhaps not too far down the road, when market conditions are too benign to justify continuing to write that business as enthusiastically. It has no trouble ceding market share to competitors under such circumstances. **Expeditors** provides a similar example. Jeff Musser, the company's CEO, explicitly states (and repeats to anyone who will listen) that it will not chase unprofitable business, even if it means giving up share. In considering, for example, whether to expand its European footprint, it's been sensitive to the margin pressures inherent in competing with local incumbents willing to defend their share at virtually any price. Expeditors' response has been to bide its time until margin pressures relent, offering it a more attractive point of entry. Another example: **Deere** cut production sooner than its rivals during the last down cycle in order to increase its flexibility and to avoid producing excess inventory it would later be forced to discount (and in the process training its customers to await such periodic fire sales going forward). As CEO Sam Allen stated in 2014 upon announcing that it was scaling back production, those actions "illustrate [Deere's] commitment to responding with speed and decisiveness to changes in market conditions."

Not all examples have to do with shifting economic cycles. Chipotle, when confronted by yet another food safety scare this year—this time in Ohio—responded quickly and efficiently by closing the store in question virtually immediately. Having laid the groundwork for a coordinated store-level and corporate response to such an event, it had established the ability to address it effectively without drama. And because it had in place a series of protocols aimed at ensuring food safety from source all the way through to the customer, it was able to isolate where in the supply and prep chain the pathogen had entered.

While adaptability at all levels of the organization and an aversion to tying strategy to a perfect operating environment are both central to the design of each of these companies, the real common denominator is the pulled punch: namely, the willingness to forego that last dollar of revenue or margin. Much as we at Marshfield look to sell a stock before—sometimes frustratingly long before—a stock reaches its pinnacle price, these companies understand that designing a strategy for the full cycle (and in anticipation of potential threats) means leaving some money on the table in the form of lost revenue or seemingly non-optimized operations.

The Girders

Just as buildings in earthquake zones need to be resistant to both standard vertical forces as well as the lateral forces unleashed by quakes, our portfolios need to be constructed to withstand both the pressures on individual holdings as well as the kinds of exogenous shocks that can affect the portfolio more broadly. It is here where the real strength of our price discipline comes to the fore. Due to the fact that we're buying what's cheap and selling what's expensive, we're continuously layering different economic and cyclical scenarios into the portfolio (and rotating out of them over time as well). Since our holding periods tend to be pretty lengthy (6-7 years, on average), we typically have a series of such cyclical stories built into the portfolio, resulting in a group of holdings that are likely to be favored in some economic circumstances but not others. To the extent there is any systematic situational leverage in the portfolio, it is usually leverage in favor of what's not working right now as opposed to what happens to be doing well today; representatives of the latter class are more likely to be sold as they approach robust valuations and representatives of the former are more likely to be hovering at or near their buy price.

Further amplifying this layering effect are two other pillars of our investing style: our willingness to hold cash and our attraction to industries that march to their own drumbeat. With respect to cash: because we don't link our buy and sell decisions, we typically hold a fair amount of it when things are going well enough to send stock prices soaring (and us, in response, to the cashier to redeem some of our bets). Those same dynamics make it harder to put that cash to work at acceptable prices, so we tend to accumulate it. In doing so, we create a natural cushion for when the tremors of an overheated economy or played out cycle inevitably strike. And with respect to quirky industries: we have always had a particular fondness for businesses whose cycles are idiosyncratic—not counter-cyclical necessarily (consumer staples not being much to our taste given their typically anemic growth rates), but off-cyclical (as attested to, among other things, by our long-lived interest in property and casualty insurance). These proclivities help further diversify the array of cyclical narratives within the portfolio.

While we try very hard not to take a view on what the economy or market are likely to do in the future, we do pay prudent attention to the degree to which our companies are economically sensitive or cyclical, subject to asymmetric or exogenous risks beyond their control, or dependent upon a particular scenario playing out. In fact, our buy checklist[5] specifically directs us to think about the extent to which a company's industry is dependent upon the direction of the economy or a particular business cycle—and where in those cycles we might be at the time. So when valuations are compelling enough to drive us pretty hard in a particular direction, we go there—but we still pay some attention to the speed limit.

In some instances, as noted above, what makes a stock cheap is singular to that company, as in the case of Chipotle. The success of that investment will be less dependent on the state of the economy than on the resuscitation of the brand. Often, however, what is inexpensive becomes a bargain because it belongs to a particular category of companies that the market fears. In such cases, and if the class of worrisome stocks reflects anxiety about specific economic expectations, then buying what's cheap can become a referendum on a particular economic outcome. That might seem alarming to some, but to us, that's precisely what price protection and resiliency are for. Take the past decade or so as an example. For some time, what were cheap were economically cyclical companies that the market had sold off in fear that the fragile post-crisis recovery would founder. **Fastenal**, Cummins, Expeditors, NVR, **Goldman Sachs,** and **Union Pacific** were all casualties of that mindset and we swooped in to buy them, believing that their price more than made up for any lack of robustness in the recovery. Our portfolio, accordingly, became something of a play on the healing of the economy, what turned out to be a successful gambit that we've cashed in on in the intervening years.

Yet when making those investments, and despite price protection and company resilience, we understood that things didn't have to turn out that way. We were mindful that we had other holdings that were less dependent on the vagaries of the economic cycle. We already held sizeable positions in Yum! and Arch, both either largely resistant to the vicissitudes of the economy, in the case of the former[6], or subject to a different set of cyclical dynamics, in the case of the latter. Without the buoyancy that inhered in those positions, we would likely have leavened our response a bit more. As it happened, we had the benefit shortly

[5] An important part of our discipline involves reviewing a checklist of considerations that apply to both the industry and business of a potential holding. The checklist is meant to distill the key questions we deem critical to the decision, including such things as value creation, corporate culture, and so on. The checklist is meant to zero in on essential issues in a way that is repeatable and consistent across decisions and over time.

[6] It's important to note that, unlike classic consumer staples, Yum! has good margins, returns, and—despite the seeming ubiquity of its restaurants in the US—growth potential.

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thereafter to further re-center the portfolio through additional purchases that presented themselves. We jumped at the opportunity to buy **Ross Stores** when it got cheap, not just because we liked the company and its positioning (which we did, very much), but also because it provided something of a counterweight to the economically cyclical part of our portfolio. Ross had ridden out the recession in style, its customer base happy to stick with it given its value positioning, but it also attracted new customers who sought it out as a cheaper alternative to the full-price stores they could suddenly ill-afford. A similar opportunity came in the form of Deere, which is tied to the agricultural cycle and to the health of farmers' balance sheets far more closely than it is to the state of the broader economy. More recently, we bulked up on AutoZone and O'Reilly, which cater to both do-it-yourself and professional car repair customers and for which the overriding determinants of growth and returns are miles driven, which tend to correlate with the strength of the economy, but also with the average age of vehicles on the road and the severity of the weather, which don't. Rest assured, we would not have bought any of those stocks simply to even out the risks in the portfolio, but it helped that they came equipped with those advantages.

The Finished Structure

With few overarching limitations at the top level, portfolio design for us is less about following a detailed blueprint and more about an organic process of analyzing individual companies and whether we should buy (or sell) them and if so, when. While, in theory, these independent decisions could result in a portfolio overly beholden to a particular economic environment or to the success of a particular industry or sector, in practice, this has rarely if ever proved to be the case. The interaction of our company quality requirements with our price discipline has over time tended to yield a portfolio embodying a balanced series of economic scenarios, where periodic shocks are not equally borne by every holding.

And finally, one last thought: when risk in a portfolio is reduced, performance is often reduced as well. But in Marshfield's case, we believe that it is the very attributes that support our good performance—namely, company quality, including resilience, and good price—that produce risk mitigation at the broader portfolio level. Thus, when it comes to overall portfolio design, we have to agree with Mies van der Rohe: less is more.

Marshfield Associates

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