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Value Investor INSIGHT

The Leading Authority on Value Investing

HIGH TIME


Yen Liow


C.T. Fitzpatrick


Christopher Smith


Dev Kantesaria


Andrew Brenton

Even if you'd seen with clear foresight the onset of the pandemic (and how many of us did that?), it's highly unlikely you would have with equally clear foresight judged the equity market's path since March of 2020: The steep decline, the rapid rebound, the rotation from growth to value and back again, and a calendar year 2021 that's almost over in which stocks have hit new highs with almost metronomic regularity.

To help make sense of the investment environment today, we asked five market-beating portfolio managers to offer their views on the equity opportunity set at hand, where they're finding interesting things to do, and how they try to be prepared for whatever the market serves up next. If you're expecting a dour bunch sitting on their hands and bemoaning a dearth of actionable bargains, read on. That isn't the case at all. See page 2

Standing Tall

Investing well requires both adapting to change and holding fast to core principles. Here's how the venerable firm Ruane, Cunniff & Goldfarb endeavors to do both.

INVESTOR INSIGHT

Ruane, Cunniff & Goldfarb
(*l to r*) Arman Gokgol-Kline, Trevor Magyar, Chase Sheridan

Investment Focus: Seek firms with "hard to plug into a spreadsheet" attributes like franchise strength, management skill and growth potential – at attractive valuations.

To explain Ruane, Cunniff & Goldfarb's approach, Chase Sheridan offers a hypothetical investment choice: a stock you believe can compound at 20% for five years, or one potentially doing so at 15% for 20 years. "The rational choice for most is to take the first option. If you're right, you'll get promoted faster, your bonus will be higher, and you might have a new job before you have to reinvest the money," he says. "There's nothing wrong with that, but we're set up to take the second option every time."

The firm's $4.8 billion (assets) Sequoia Fund since 1970 has earned a net annualized 14.0%, vs. 11.5% for the S&P 500. We spoke with portfolio managers Sheridan, Arman Gokgol-Kline and Trevor Magyar about what they seek in long-term compounders and a few they're high on today. See page 13

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It's High Time

Time-tested investors Yen Liow, C.T. Fitzpatrick, Christopher Smith, Dev Kantesaria and Andrew Brenton describe the opportunities and challenges they see in today's investing environment, how they stay prepared for adversity, and why they believe current holdings Five Below, Curtiss-Wright, Zoetis, Fair Isaac and Jen-Weld deserve particular mention.

INVESTOR INSIGHT

Yen Liow
Aravt Global

You've tried to design your investment process in order to be prepared when the market serves up opportunity. At a time when opportunity may be harder to find, describe what that looks like.

Yen Liow: We invest in extremely long-dated theses, in what we consider to be emergent or already established monopoly or oligopoly companies that have a considerable growth runway. These opportunities are always difficult to find – I wouldn't say today is any different – but if you find a high-quality business that may be expensive at the time and you are prepared to act on it, we've found the opportunity eventually comes. Luck favors the prepared.

In our industrial design there are three books on both the long and short side. Book one is the live portfolio, book two is inventory for which we are fully up to date on the business, the company's prospects and what we think it's worth, and book three is a qualified research universe of companies we track closely and move up or out based on events as they unfold. I consider book two to actually be the most important. These are ideas pushing to get into the live portfolio. The stronger they are, the better we feel about what we own that's keeping them out. But they also tell us we can intelligently exploit volatility if given the opportunity.

Do you keep cash at the ready to exploit such opportunities?

YL: I believe that's market timing and is a very, very difficult thing to do well. True north for our strategy is that while in the short term valuation often drives price, in the long term earnings power and capital return do. We have historically invested in companies growing their earnings power at 20-30% per year. When you own companies like that, we think the opportunity cost of dry powder is too high and we'd have to expect frequent severe drawdowns for it to make sense for us to even attempt to get in and out at the right times. Which, again, I don't think we can do. I would also add that I don't know of many dry-powder investors who actually ever get to zero dry powder – that makes the opportunity cost of cash even higher.

When volatility arrives our first protocol is to hold through, not to add down, not to rotate. We love what we own and own it for a reason. Volatility is the friend of our strategy, but it doesn't necessitate that we be hyperactive or reactive when it occurs. For some investors a major market reset can be an ideal time to upgrade the portfolio to your absolute best five- or ten-year compounder ideas. We'd like to believe we already own those. Hyperactive for us in a crisis is buying or selling maybe three stocks.

Can you generalize at all about what you're finding most interesting today?

YL: We've just gone through a decade where a lot of U.S. mega-cap has compounded at a very nice rate and at a reasonable valuation, which is an aberration of history, not the norm. When you study the extreme right tail of 10-year-plus high-performing stocks, they usually start in the small- to mid-cap range, somewhere between $1 and $10 billion. That's actually where we've been shifting our focus over the past 18 months, more outside the U.S. than in it.

The private capital markets in the U.S. are so liquid that companies here are listing much later because they don't need to go public to raise capital. That's less the case in international markets, and we think as one result there's a larger cohort of $1 to $10 billion market caps of interest in those markets. As for industry or sector, if there's any theme I'd say there are pockets of medical technology, outside of biotech, that aren't getting as much attention as they deserve.

Has anything non-U.S. or in med-tech made it into your portfolio recently?

YL: One I'd mention would be Semler Scientific [SMLR], a $650 million market cap company based in the U.S. that we believe has a highly disruptive product that aids in the diagnosis of Peripheral Arterial Disease [PAD]. PAD is a chronic condition that affects the elderly, causing circulation to the extremities to weaken over time. It's traditionally been underdiagnosed, in large part because the traditional testing involves determining what's known as the ankle-brachial index, which requires attachments to various parts of the body, relatively sophisticated equipment and a trained technician. Semler's FDA-approved device, called QuantaFlo, attaches to the finger or toe and then is connected to a laptop with software that provides a diagnosis within five minutes. It is literally better, faster and cheaper than the current alternative. It's also less than 5% penetrated in a target market with roughly 80 million people in the U.S. who are over 65 or over 50 with comorbidities.

As the company takes market share we believe revenues can grow at a 30% or better annual rate for some time, with extraordinary unit economics generating 90% gross margins and 50% EBITDA margins. The shares are currently valued at roughly 30x our estimate of 2022 free cash flow per share. That's not overly aggressive in an industry where takeout multiples can be 50-100% higher than that because of the synergies involved for a bigger-company buyer. It's not why we own it, but we also see potential options on the upside from three pipeline products that target the company's same insurer sales channels. [*Note*: Semler shares traded recently at $97.50.]

Describe why you're also high on the prospects for U.S. specialty discount retailer Five Below [FIVE], one of your longer-term holdings.

YL: We believe discount retail is a phenomenal space in which to invest. There have been a significant number of highly successful business models in the space over multiple decades in every jurisdiction globally. It's the idea of scale economics shared, to use the term Nomad Investment Partnership's Nick Sleep used in talking about Costco. It's a wonderful model to compound value and we consider Five Below the most interesting expression of it right now in the U.S.

The whole premise of discount retail is value. The retailer buys at massive scale on a focused number of SKUs and shares most of the efficiencies that come from that with customers in the form of lower prices. In Five Below's case, they're selling things like candy and school supplies and toys and clothing accessories, mostly at price points below $5. They target teens and their moms, so while you could say they compete with everybody, they also effectively compete with nobody because they've segmented their business in a unique way.

Because of the price points and customer proposition so intensely focused on value, e-commerce is less of a threat. Five Below's prices are often cheaper than Amazon's and its average basket size goes for less than $10, which is a level that makes it even harder for e-commerce to profitably compete. There is also a social and treasure-hunt component to the experience, making the stores a place for teens to hang out in a way you can't replicate online.

The runway for growth here is still long. The company has roughly 1,200 stores in the U.S. and we believe the total addressable market is more than 3,000. The capital required to add stores is low and the four-wall economics here are as good as any retailer in the world – pre-tax returns on investment per store are 150%. With those kinds of returns you want to put as much capital in the ground as you possibly can. The only real constraint on unit growth today is supply-chain related, as they're having trouble getting things like HVAC systems, lighting systems and shelving for the new stores.

We're also very high on the company's ongoing initiative, called Five Beyond, to introduce price points above $5. They're doing it in a disciplined way, selling the new products in a dedicated section of the store. The customer knows the majority of items are still below $5, but there's

INVESTMENT SNAPSHOT

Five Below
(Nasdaq: FIVE)

Business: Specialty retailer targeting teens with a wide variety of low-priced merchandise that it segments into Fashion and Home, Party and Snack, and Leisure categories.

Share Information (@11/29/21):

Price	**207.11**
52-Week Range	152.37 – 237.86
Dividend Yield	0.0%
Market Cap	$11.47 billion

Financials (TTM):

Revenue	$2.58 billion
Operating Profit Margin	13.3%
Net Profit Margin	10.0%

Valuation Metrics
(@11/29/21):

	FIVE	S&P 500
P/E (TTM)	45.9	28.8
Forward P/E (Est.)	37.0	22.4

Largest Institutional Owners
(@9/30/21 or latest filing):

Company	% Owned
Vanguard Group	8.9%
BlackRock	7.5%
Fidelity Mgmt & Research	7.2%
Capital Research & Mgmt	6.2%
Wellington Mgmt	4.6%

Short Interest (as of 11/15/21):

Shares Short/Float	3.0%

FIVE PRICE HISTORY

THE BOTTOM LINE

With its business model and growth runway fully intact, Yen Liow believes the company can profitably compound revenues for some time at a low- to mid-20% annual rate. Given that, he doesn't find the current valuation taxing, and notes: "If there's any major market drawdown, this would likely be one you'd want to invest in right through the cycle."

Sources: Company reports, other publicly available information

this special section to find new things for a bit more. They've done it by retrofitting existing stores and by building the new area into new ones, and the results have been highly positive. That makes sense when you're running higher-priced items through the same square footage with the same labor and operating costs. Margins overall have been very stable – 35% or so at the gross-margin level and 12% at the operating-margin level – but with Five Beyond just starting to annualize in comps we expect those to inflect upward.

You mentioned supply-chain issues in opening new stores. Are those issues causing problems otherwise here at least in the short term?

YL: It is obviously an important issue for retailers right now, but we don't see it as a particularly disruptive issue for Five Below. They source out of Asia primarily through the Suez Canal, so aren't exposed to the port issues in southern California. They have long-dated container agreements with shippers in Asia who value relationships with a company growing at this rate. Domestically, the company has invested meaningfully in its distribution and warehouse infrastructure over the past five years, so we think they're in a position to play offense today and beyond.

Is inflation a risk?

YL: When prices go up, it puts even more emphasis on value and that plays to the strength of discount retailers. The company is not beholden to any SKU, so it can shift product composition easily and take advantage of its sourcing and scale to continue to undercut the competition on price. Skilled merchants know how to handle an inflationary environment and we believe Five Below is among the best in the business at that.

The stock today trades at around $207, significantly higher than it was pre-pandemic. From that level how are you looking at valuation?

YL: The shares trade at a healthy multiple of forward free cash flow of around 37x, but that's broadly in line with their 10-year average. For that you're getting a countercyclical, or at least acyclical, business that we believe through unit and comp-sale growth can compound revenues for a long time at a low- to mid-20% annual rate. Free cash flow per share can compound at 30% or more. A mid-30s multiple on that is not at all taxing to us.

This is already a sizable position for us, but we think the shares are attractive even at this price. If there's any sort of major market drawdown, this would likely be one you'd want to invest in right through the cycle.

Is anything keeping you up at night about the current investing environment?

YL: There's always a tension in investing – the market's job is to humble us and it does a very good job of it. You have to learn to live with that pit in your stomach to be a good investor, and if it isn't there you should worry.

From a macro perspective, we do believe we've been in a manipulated yield-curve environment for a long time. We're not trying to call when it goes away, but such an environment isn't natural and at some point will need to adjust. If inflation – which we believe is a real threat – pushes that adjustment to happen sooner rather than later, that could be extremely disruptive to both bond and equity markets at the same time.

The way we sleep at night is by having a portfolio that is reasonably priced for the inherent long-term growth in it. Booms, busts, pandemics, crashes, manias – everything that has happened over the past 20 years is going to happen again in some fashion over the next 20 years. It's a given as long as humans and machines are involved in stocks. But if we own extremely high-quality assets in the hands of highly capable managers at reasonable prices, and if, as we believe, our total return long-term will be driven by durable and predictable earnings power, the odds of success are in our favor. Not in the absence of bad times, but right through them.

INVESTOR INSIGHT

C.T. Fitzpatrick
Vulcan Value Partners

One could imagine the "stable value" businesses you target – with strong balance sheets, identifiable and sustainable competitive advantages and consistent and growing free cash flow generation – would be richly valued in today's market. Are you finding that to be the case?

C.T. Fitzpatrick: It's actually kind of a weird market. We're constantly updating what we call our MVP list of companies, which to us qualify for investment for the reasons you mention. On the one hand, there are a number of moderately growing consumer-products and industrial companies on that list that we today consider kind of dangerously overvalued, trading at 120 to 170 cents on the dollar by our math. Maybe there's still somewhat of a sugar-high from demand during or coming out of the pandemic, I don't know, but they're not at all interesting to us at the moment.

What we think people are not paying up for in a number of cases, however, are companies that were already great businesses that got better through the pandemic and still have incredible opportunities in front of them. Yes, stock prices have gone up, but the value growth in many of the businesses we've invested in is nothing short of spectacular. We're likely to end this year with the highest growth in the

total intrinsic value of our portfolio companies that we've seen in our firm's history. A semiconductor company like Nvidia [NVDA], for example, may seem highly priced to some, but our estimate of value for it has continued to increase faster than the stock price.

Even the stock of a company like Mastercard [MA] we'd argue is trading at one of the biggest discounts to value we've seen in years. You might wonder how can that be? Its value was very stable through the pandemic crisis and we think its business model is stronger today than it was before Covid. But the stock is priced as if the company is not going to do as well post-pandemic as it did pre-pandemic. We think that's crazy.

In Mastercard's case could it be that the market is infatuated with all the new, putatively disruptive competitors in the payments' space?

CTF: We could be wrong, but for all our companies we're paranoid about disruption and potential risks to business models and we don't believe that's a material issue here. In our experience in this industry everyone who has tried to compete with Mastercard and Visa [V] has had their head handed to them. They figure out they're a lot better off working with Mastercard than against it. Think Apple Pay. Think Square. Don't get me wrong – new competition is not an idle concern here. But if that's what is weighing on Mastercard's stock price, we see that as a pretty attractive opportunity.

You've spoken also about finding opportunity in companies that because of changing behaviors through the pandemic have gone from potential MVPs in a few years to MVPs today. Would Sweden's Evolution Gaming [Stockholm: EVO] – in which you established a position last quarter – fall in that category?

CTF: Evolution is an independent producer of online gambling content. This does fall in the category of a business where the secular growth that was happening anyway accelerated as the pandemic started to play out. Online gambling is taking share everywhere, but both traditional and online-only casinos have found it difficult to create in-house the best games that people want to play online. If you can create those – and Evolution has built a real franchise in doing just that – the power dynamic in the business shifts toward you. You've got pricing power, volume growth, expanding margins, good free-cash-flow generation, and it's likely to go on for a long time. It might not be an easy ride, but given the rate at which we see value compounding here, we think the price-to-value at today's share price [of around 1,000 Swedish kroner] is quite interesting.

When you have something to buy – either a new position or adding to an existing one – where does the cash to pay for it tend to come from?

CTF: We're usually fully invested, but we size our positions according to discount so we typically have liquidity when we need it. To give you an example, after years of it not qualifying for investment we not long before Covid hit added General Electric [GE] back to our MVP list. We thought under Larry Culp as CEO the company was doing all the right things and we were prepared to own it if the price was right. When Covid came, the price was right and we put it into the portfolio at a roughly 5% position.

Over the next 18 months or so the shares came back very strongly, and while value growth was fine, it didn't keep up with the stock-price appreciation. As the discount to value got smaller and smaller, the share position went from 5%, to 3%, to 2% and eventually it worked its way out of the portfolio. As that happens we've got money to reinvest where the discount to value is higher. That said, it is a challenge for us to figure out how to pay for all we'd like to buy at the moment. Some of our existing positions have had earnings volatility and their share prices have fallen 10-15%, but we haven't had much that we've been willing to sell in order to buy more of them.

Given your focus on value stability, you'd likely want to buy more of many of your current holdings if the market took them down 20-30% in an indiscriminate selloff. For the sake of illustration, what's one that you could imagine giving a particularly early look in that scenario?

CTF: I've been talking more about higher-growth companies, but one less-glamorous idea that comes particularly to mind if the market sold off broadly would be Curtiss-Wright [CW]. It makes a range of technological and industrial products that serve end markets across three operating segments, Aerospace and Industrial, Naval and Power, and Defense Electronics. The end-user mix is 60% or so commercial and 40% defense.

The company tends to sell niche-y products, where they have a leading position among a very concentrated set of competitors. One representative example is that they are the dominant supplier of pumps, valves, motors and generators used to power the U.S. Navy's nuclear-powered aircraft carriers. They make coolant pumps for nuclear reactors. They make data systems for fighter jets. They make electronic throttle controls for on- and off-highway vehicles. These are typically not commoditized products, but rather those that have advanced technology, have to operate in sometimes very harsh conditions and cannot fail.

The end markets here don't grow particularly fast, but the company is a well-oiled machine that is constantly improving its products, has decent pricing power and grows at a steady, highly profitable rate. Management has been in place for a long time and just executes really well. Operating margins have increased by about 500 basis points over the past five years, and while those increases are not always in a straight line, we think there's still room to continue to grind out margin improvement of 25-50 basis points a year. We've followed this and it has been on our MVP list for a long time.

At today's $129 share price, how inexpensive do you consider the stock?

CTF: We think Curtiss-Wright can generate upper-single-digit annual revenue growth and double-digit compound growth in operating profits. Free cash flow conversion is excellent, so we see that translating into very solid value growth in the low- to mid-teens over at least the next few years.

As we want to see in every company we own, that value growth is quite stable. In 2019, EBIT as we adjust it for amortization and any sort of non-recurring noise in the financial statements was $469 million. In 2020 – think about what happened in 2020 – that number was $467 million. Free cash flow in 2020 came in at just under $215 million, 140% of net income.

Because they have slightly different growth rates and underlying economics, we value each of the three operating segments separately on a DCF basis. Without being overly specific, right before the pandemic the stock was trading at pretty much our estimate of fair value. When the shares tanked along with the market as the pandemic hit, because the value was so stable it gave us the opportunity to buy the stock at a very large discount, approximately 50 cents on the dollar. Today the shares trade just slightly below where they

INVESTMENT SNAPSHOT

Curtiss-Wright
(NYSE: CW)

Business: Design, manufacture, sale and servicing of engineered products and systems sold primarily into aerospace, defense, power-generation and general-industrial end markets.

Share Information (@11/29/21):

Price	**129.15**
52-Week Range	103.55 – 136.97
Dividend Yield	0.6%
Market Cap	$5.04 billion

Financials (TTM):

Revenue	$2.51 billion
Operating Profit Margin	16.6%
Net Profit Margin	9.7%

Valuation Metrics
(@11/29/21):

	CW	S&P 500
P/E (TTM)	22.7	28.8
Forward P/E (Est.)	26.4	22.4

Largest Institutional Owners
(@9/30/21 or latest filing):

Company	% Owned
Vanguard Group	8.9%
BlackRock	8.1%
Boston Partners	5.2%
Fidelity Mgmt & Research	4.7%
Primecap Mgmt	4.3%

Short Interest (as of 11/15/21):

Shares Short/Float	1.7%

CW PRICE HISTORY

THE BOTTOM LINE

While not a sexy growth story, the company's niche, high-end positions in stable end markets can translate into low- to mid-teens annual value growth for it over at least the next few years, says C.T. Fitzpatrick. "This is a steady compounder that won't get too knocked around if something disrupts the market," he says. "That to us is pretty exciting."

Sources: Company reports, other publicly available information

were pre-pandemic and our value estimate has compounded since then. So the shares still trade at a decent discount to our estimate of intrinsic value, which is a good place to start.

You never know exactly why the market might sell off, but if it did we would expect this type of company to hold its value quite well and provide an attractive opportunity like we were given last year with the pandemic. Again, it's maybe not as sexy a story as something like Evolution Gaming – which might be why the shares trade where they do – but we think Curtiss-Wright is a steady compounder that won't get too knocked around if something disrupts the market. That to us is pretty exciting.

On one final subject separate from what we might consider investing, do you have any thoughts on people's seemingly unquenchable appetite for things like cryptocurrencies?

CTF: Where do I start? I think it's insane and dangerous. People go from one bubble to another – it's human nature at its worst and a lot of financially unsophisticated people are going to be hurt badly. I don't know that there's anything to be done about it. I guess in the end experience will be a great teacher.

INVESTOR INSIGHT

Christopher Smith
Artisan Partners

When we last spoke [*VII*, July 31, 2020], you described looking for ideas in industries inflecting long-term for the better where you see earnings-power upside the market is missing. In a market where earnings-power upside seems pretty well appreciated, are you finding good ideas tough to come by?

Christopher Smith: I actually wouldn't say that. The economy is very strong and earnings have been increasing rapidly, but while growth overall can continue, the growth rate is probably pretty close to peak. Monetary and fiscal policy can continue to be expansionary, but the expansion rate is also probably pretty close to peak. When economic growth is decelerating, we think that's a fertile time for us as stockpickers. If we're right about our companies' earnings accelerating in a decelerating economic environment, that differentiated view is even more likely to create alpha for us.

If I were to generalize, I'd say our portfolio today reflects kind of the opposite of a barbell approach. We're leery of the valuations on many of the absolute-best, highest-growth companies, and we're also not so keen on highly cyclical, economically sensitive businesses at this point in the cycle. What we're finding most interesting are up-the-middle, good companies that are beating estimates and we think for both industry and company-specific reasons are going to continue to do so.

That calls for an example or two.

CS: One representative example would be Palo Alto Networks [PANW]. The company is a leader in cybersecurity, focused on providing both hardware and software firewall technology that protects customer IT networks in a broad range of end markets, including education, financial services, government, healthcare and energy. It has 90,000 customers, by far the largest installed base in the industry.

It's not a secret that companies are spending on cybersecurity, but we think the growth in that spending is inflecting at a higher rate than is generally assumed. Big trends like increasing hybrid work, the continued shift toward cloud-based systems, and the digitization of enterprises in general via artificial intelligence and machine learning all increase the opportunity for hackers to get where they shouldn't be. Companies are making good money and they're increasingly spending it to guard against that.

Palo Alto itself has done an excellent job of rolling out new products and continuing to shift its legacy hardware customers to a more comprehensive integrated platform with both hardware and software elements. Subscription-based cloud services today generate more than 70% of revenues – which are recurring and higher-margin – and that number should increase to 85% or so by 2025.

We think the company can grow revenue over the medium term at least 20% per year and free cash flow at closer to 30% annually. On our $30-per-share estimate of 2024 free cash flow – which is materially above what the Street expects – the stock today trades at just over 18x, which we don't think is at all aggressive. At a time when the market seems more obsessed with hyper growth, we're finding value in things like this.

Describe your broader investment case for animal-health company Zoetis [ZTS].

CS: The company is a proven innovator in animal-health medicines and vaccines, with roughly two-thirds of the business tied to pets and the other one-third focused on livestock. We'd describe the livestock business as stable and fine, but our real interest here is on the pet side, where for both industry and company-specific reasons we see underappreciated growth potential.

Roughly two-thirds of U.S. households own a pet – just over 100 million cats and just under 100 million dogs. While those numbers continued to grow through the pandemic, there's been an acceleration in the composition of pet owners shifting more to millennials and Gen Z. That's important because studies show that younger owners spend roughly 50% more on their pets than baby boomers over time. The impact of that shows up more as pets get older, so while it's maybe not evident yet, we see that demographic shift as a long-

term structural change bumping up overall annual industry growth from 4-5% to closer to 7-8%.

We also see unrecognized growth potential from a number of the company's recent innovative product launches. We've done research throughout the veterinary-health value chain and believe new products in dermatology, parasiticides and pain management offer pioneering solutions to common pet health problems for which there will be increasingly high demand. Simparica Trio, for example, is the first pill to combine treatments against ticks, fleas and worms. Cytopoint is an injectable therapy for seasonal allergies and Apoquel is a daily pill for chronic itching. In pain relief, the vets we've spoken with believe Zoetis's new treatments because of their efficacy can double the size of the pain-treatment market.

Combining industry growth with the revenue upside we expect from the new products, we estimate Zoetis can increase revenue in 2022 by around $1 billion, from $7.9 billion to $8.9 billion. Consensus Street estimates are modeling only $650 million or so in growth. On top of that, as the heavy R&D spending to support new product launches runs off and the related revenues come in, we see operating margins expanding as well at about 150 basis points per year over the next few years.

The shares, recently at $223.50, have done well. Is this a position you're happy to own, but would be even happier to own if it were 20% cheaper?

CS: We think revenues can grow at an 11-12% annual rate through 2025, and that earnings can compound over that period at around 20% as the returns on invested capital go from 20% or so to 30%. To your question, if we're right about all that we still think from today's price – because we have a differentiated view – that there's attractive upside in the stock. But it's also true that if the market overall drew down for macroeconomic reasons that this is a name where our model would probably not change a lot. So if it got cheaper, all the better.

In your latest quarterly letter – which we're excerpting almost in full elsewhere in this issue [*see p. 21*] – you argue that investors focus too much on their batting average and not enough on their slugging percentage. What prompted that?

CS: It's something I've thought about for a long time and have tried to incorporate from the beginning in how we invest. My basic point is that as hard as you try as an investor, you're probably going to be right on your ideas 50-55% of the time. What's going to have a greater impact on your ability to generate alpha is being more right when you're right and less wrong when you're wrong.

If you recognize that, you're more likely to concentrate in your best ideas, you're more likely to invest only when you have a materially differentiated view, and you're going to build into your process support for readily admitting you're wrong and rooting out losers quickly. We'd like to think we do all that, that it distinguishes us from a lot of other managers, and that if we're good at it we have a higher probability of success.

INVESTMENT SNAPSHOT

Zoetis
(NYSE: ZTS)

Business: Global development, manufacture and sale of antibiotics, vaccines, parasiticides, diagnostics and other health-related products; for both companion animals and livestock.

Share Information (@11/29/21):

Price	**223.55**
52-Week Range	141.41 – 228.89
Dividend Yield	0.4%
Market Cap	$103.77 billion

Financials (TTM):

Revenue	$7.62 billion
Operating Profit Margin	36.0%
Net Profit Margin	26.0%

Valuation Metrics
(@11/29/21):

	ZTS	S&P 500
P/E (TTM)	53.8	28.8
Forward P/E (Est.)	44.0	22.4

Largest Institutional Owners
(@9/30/21 or latest filing):

Company	% Owned
Vanguard Group	7.4%
BlackRock	4.6%
State Street	4.1%
AllianceBernstein	3.6%
State Farm Inv Mgmt	3.6%

Short Interest (as of 11/15/21):

Shares Short/Float	0.6%

ZTS PRICE HISTORY

THE BOTTOM LINE

The market doesn't appear to fully appreciate the potential benefits to the company from shifting pet-owner spending habits or from a number of recent innovative product launches, says Christopher Smith. From today's share price he expects to benefit as a shareholder from what he thinks can be 20% compound earnings growth through 2025.

Sources: Company reports, other publicly available information

INVESTOR INSIGHT

Dev Kantesaria
Valley Forge Capital Management

Start out by giving a brief look at how you're viewing the equity market opportunity set today.

Dev Kantesaria: Investors today are faced with confusing signals. The reopening of the economy has artificially inflated the earnings power of cyclical companies. There are also speculative areas of the market such as cryptocurrencies, SPACs and IPOs that have performed very well, reinforcing their appeal to short-term traders. As bottom-up investors we have to ignore this noise and focus on the long-term fundamentals of our companies, which sell essential products or services and can use their pricing power, volume growth, operating leverage and capital efficiency to deliver strong intrinsic value growth regardless of market conditions.

We're finding some very attractive buying opportunities in the current market, and our cash position is close to zero. We believe our portfolio, consisting of companies that generally should grow free cash flow at a high-teens rate in coming years, is trading at a significant discount to intrinsic value based on the current weighted average free cash flow yield.

Given the types of companies you own, have you been active in many of the market-leading "FAANG" stocks?

DK: We have held Amazon for several years and increased our position this year. We own it for its services businesses – Amazon Web Services and advertising – which are rapidly growing, high margin, and less capital intensive than the legacy e-commerce business. Due to the increasing contribution from services, we believe Amazon's business quality continues to improve and the valuation on its shares is compelling. On our 2025 numbers, it's one of the cheapest companies in our portfolio.

The FAANGs certainly represent above-average businesses, but historically we have avoided them due to their high capital intensity, poor capital allocation and vulnerability to technological shifts. They have to continue to make large offensive and defensive acquisitions in order to support their growth ambitions. We believe we can find other opportunities with comparable potential returns but that have greater predictability.

Facebook hasn't piqued your interest?

DK: Facebook has a strong business model, but it is currently under attack. While the recent negative headlines are problematic, we're more worried about the company's declining business quality. Apple's recent restrictions on tracking customers make it tougher for advertisers using Facebook to target their ads and measure return on investment. Google and Amazon remain formidable competitors in advertising, with the latter continuing to grab significant market share. Younger users are showing a preference for other platforms such as Snapchat and TikTok. Facebook's weakening competitive situation is forcing it to reinvent itself, as seen with its name change and massive $10 billion per year R&D bet around the metaverse. Although the metaverse may ultimately be the future, we're uncomfortable underwriting such high R&D expenditures when the return on investment is so unknown.

Last time we spoke [*VII*, October 31, 2019] you described the investment case for Fair Isaac [FICO]. Update us on that.

DK: The stock has declined 35% in the past four months, which we think has given investors a rare opportunity to buy this outstanding franchise at a deep discount.

The company has two main businesses. It provides consumer credit score models to the three major credit bureaus – Equifax, Experian and TransUnion – which combine them with additional consumer data to create FICO scores. The scores are then sold to lenders, which use them to determine a consumer's creditworthiness when seeking a mortgage, auto loan, credit card, etc. The second business focuses on providing analytics and decision-making software to companies that want to better manage and grow their consumer-credit-related offerings. Over the last several years Fair Isaac has been working on transitioning its software tools from an on-premises, upfront licensing model to a cloud-based, subscription platform that offers a suite of solutions. Although the software platform is growing at about 50% per year it is still relatively early in its development.

The credit-score business remains the main driver of intrinsic value and we believe it is one of the highest-quality businesses we've ever seen. Despite competitive threats from VantageScore, which is owned by the three major credit bureaus, as well as algorithm-based lending software from companies such as Upstart, FICO scores remain firmly entrenched in the consumer-credit ecosystem. The scores are inexpensive, making it difficult to undercut them on price. A bank making a decision on a $30,000 car loan or a $400,000 mortgage pays less than a dollar for a FICO score, which has proven over many years to be a highly reliable predictor of loan repayment. FICO scores are also widely accepted as an objective and trusted method to measure the credit quality of a loan portfolio, whether for internal company tracking, the buying or selling of loans, or the securitizing of loans for sale.

Given the high value-add to end users, the company has significant pricing power and incremental revenue for the scores business comes with high margins of 85-90%. FICO score volumes should increase over time as companies seek to utilize this data in new ways to engage customers. We're also seeing countries such as China, Brazil and India, which have historically

never used consumer credit scores, slowly increasing their adoption. Rising volumes, pricing power, high incremental margins and limited reinvestment requirements make the scores business a powerful compounding machine.

So why are the shares down?

DK: It could be related to concerns about the growth of the software business, or competitive threats from VantageScore and new lending algorithms, or worries about government intervention such as antitrust, legislative or regulatory action that could weaken the company's dominant position. None of these issues overly concern us. We think FICO scores is an example of the type of "natural" monopoly or oligopoly we seek to own. Banks aren't mandated to use FICO scores, they choose to do so because they are inexpensive, reliable and accepted in the marketplace.

At more than $550 in July, how are you looking at upside with the shares now trading at around $350?

DK: Using conservative assumptions for volume and pricing growth, we expect the company to grow free cash flow per share at above a 20% rate for the next several years. It is aggressively buying back its stock – over 5% in the last few quarters – which is an additional tailwind. The expected free cash flow yield on our 2025 estimates is quite exceptional.

You generally don't trade a lot. Did that hold true when the market cracked in March of last year?

DV: A severe downdraft like we saw in 2020 gives us the opportunity to buy great businesses for the long term. We were aggressive buyers of companies that we already held and didn't sell a single share. We'd like to think this is a testament to our decision making. If a company you bought five or ten years ago is still your best idea today, it says a lot about the quality of your process and ability to identify strong compounding machines. Some may perceive the lack of change as boring, but we believe it's the hallmark of a prudent investment strategy.

INVESTMENT SNAPSHOT

Fair Isaac
(NYSE: FICO)

Business: Provider of software, systems and data that facilitate business decisions around such things as extending and marketing credit, fraud management and collections.

Share Information (@11/29/21):

Price	**350.66**
52-Week Range	342.89 – 553.97
Dividend Yield	0.0%
Market Cap	$9.46 billion

Financials (TTM):

Revenue	$1.32 billion
Operating Profit Margin	31.4%
Net Profit Margin	29.8%

Valuation Metrics
(@11/29/21):

	FICO	S&P 500
P/E (TTM)	25.8	28.8
Forward P/E (Est.)	24.4	22.4

Largest Institutional Owners
(@9/30/21 or latest filing):

Company	% Owned
BlackRock	13.2%
Vanguard Group	9.5%
State Street	3.2%
Wellington Mgmt	2.8%
Valley Forge Capital	2.5%

Short Interest (as of 11/15/21):

Shares Short/Float	2.4%

FICO PRICE HISTORY

THE BOTTOM LINE

The market appears concerned by competitive and regulatory issues that Dev Kantesaria doesn't believe hinder the company's ability to increase free cash flow per share at above a 20% annual rate for several years. Based on the stock's current free cash flow yield using his 2025 estimates, he finds the shares' valuation today to be "quite exceptional."

Sources: Company reports, other publicly available information

INVESTOR INSIGHT

Andrew Brenton
Turtle Creek Asset Management

You track how discounted your portfolio is to the summed intrinsic-value estimates of your holdings. What is that telling you today about the attractiveness of the current equity opportunity set?

Andrew Brenton: Apart from the credit crisis at the end of 2008 and the Covid crash in March of last year, our portfolio is as cheap as it's ever been. I'll remind

you that the financial forecasts we use to calculate intrinsic value reflect our best estimate of what the future cash flows will look like, trying to be neither conservative nor aggressive. We're trying to be balanced and include M&A and share repurchases in many of those forecasts. In 2008, our portfolio discount to value was about 70%, last year it got to the low-60s, and right now it's right around 50%.

While we think what we own is very attractive, that's not to say we think stocks in general are cheap. We've expanded our coverage universe over the years so that there are now more than 100 companies for which we have a full view of value and that we would be happy to own if they got cheaper. We look from time to time at the forward P/Es of companies on this coverage list that are currently trading above our estimates of value, and the average for that not insignificant number of names is now more than 40x. Our portfolio companies on that same basis trade at an average of less than 10x. That tells you there's quite a wide dispersion today in what's considered in favor versus out of favor.

Almost all investors have a number of holdings that have significantly increased over the past year. In general, have your estimates of value kept up with the prices?

AB: As we've discussed before, we go through an ongoing re-construction process that we call continuous portfolio optimization, which typically entails selling small amounts of positions whose share prices have increased and buying small amounts of positions whose share prices have decreased. We've added alpha over time in doing that, which requires having up-to-date, relatively accurate views on what we think our stocks are worth.

With both stocks and their underlying businesses doing as well as they have, it's a continuing challenge to be as up-to-date as we need to be in incorporating all material new information. To give an example, we own an automation-solutions provider based in Cambridge, Ontario called ATS Automation Tooling Systems [Toronto: ATA]. It's been in the portfolio for at least 15 years and is still a top-ten holding. Our latest story for the company has been built around the arrival four and a half years ago of Andrew Hider as CEO. We've always been impressed with ATS's technology and the underlying secular growth in automation, but we thought Andrew's experience and success at Danaher would allow him to step up the company's game, so to speak.

We think he's done just that, both in focusing the strategy on attractive target end markets and in broadly improving operating execution and profitability.

ON OPPORTUNITY TODAY:

There's quite a wide dispersion today in what's considered in favor versus what's considered out of favor.

The pandemic hid some of the improvements, but over the past year the market has come around to recognizing the positive change going on and the share price has increased. [*Note*: Over the past year ATS's shares have increased from around C$22 to a recent C$48.] So what are we doing? In this case, not a lot. The stock currently trades at about the market forward P/E, for a company we think can generate double-digit organic profit growth and has considerable potential to grow through M&A. (Just earlier this month it announced a C$550 million deal to acquire a manufacturer of biopharma-processing and life-sciences equipment.) It's a constant battle to stay on top of the value, but taking the easy way out and just selling and locking in gains can mean you leave a lot of money on the table that you shouldn't.

Describe your investment case for window and door manufacturer Jeld-Wen [JELD].

AB: This is a fairly recent portfolio addition, which has some of the same dynamics we just spoke about with ATS. The company is a leading global manufacturer of windows and doors for residential housing, with its largest operations in North America, followed by Europe and Australia. It was family owned and operated for much of its history – with some help from Canadian private equity group Onex, which bought a large stake in 2011 – until it came public in 2017 and relatively soon thereafter brought in an experienced CEO from the outside, Gary Michel, who had spent decades at Ingersoll Rand.

We know some people at Onex fairly well, and they saw the original opportunity here coming from this being a C$3 billion global enterprise being run like a C$300 million family business. They had done a good job building the business but weren't as successful on the operational side. Acquisitions didn't really get integrated. EBITDA margins were maybe half those of peer companies.

Gary Michel's background was as kind of a turnaround guy at Ingersoll Rand, and he came out of quasi-retirement to run Jeld-Wen because he saw the same potential Onex did to make things better. In doing his research prior to joining he consistently heard that Jeld-Wen had the potential to be a fantastic company if they just got out of their own way. He uses somewhat different language, say, than Andrew Hider at ATS, but he's an experienced proponent of the lean-manufacturing and continuous-improvement practices found at the best-run industrial companies, and he's incorporating them step by step throughout Jeld-Wen's operations. EBITDA margins have improved from the mid single digits to the low double digits, but are still far from management's target of 15-17%. In Wall Street's eyes, especially coming out of the pandemic, this is still a show-me story.

Another part of the thesis is that we're still, especially in the U.S., in a multi-year catch-up period in terms of the housing stock. The long period of underbuilding following the 2008 crisis has left the U.S. housing market significantly underbuilt. We believe that will work itself out in favor of companies like Jeld-Wen, who have strong brands and market positions in the

INVESTMENT SNAPSHOT

Jeld-Wen Holding
(NYSE: JELD)

Business: Manufacturer of high-performance interior and exterior building products, offering a broad selection primarily of windows, wall systems and interior and exterior doors.

Share Information (@11/29/21):

Price	**25.11**
52-Week Range	22.70 – 31.47
Dividend Yield	0.0%
Market Cap	$2.30 billion

Financials (TTM):

Revenue	$4.64 billion
Operating Profit Margin	6.1%
Net Profit Margin	3.7%

Valuation Metrics
(@11/29/21):

	JELD	S&P 500
P/E (TTM)	15.0	28.8
Forward P/E (Est.)	10.9	22.4

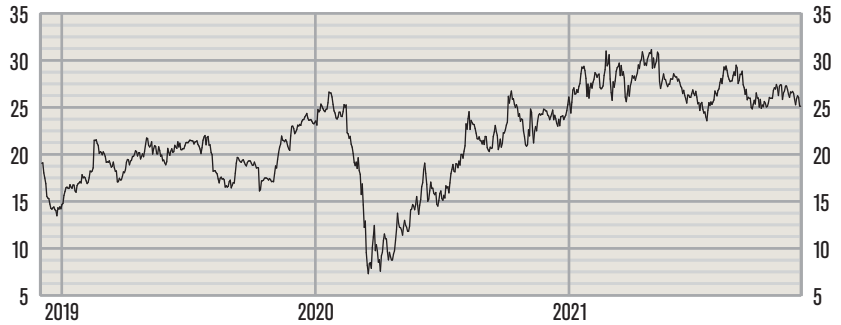
Largest Institutional Owners
(@9/30/21 or latest filing):

Company	% Owned
Fidelity Mgmt & Research	15.3%
Vanguard Group	9.7%
Turtle Creek Asset Mgmt	8.6%
Pzena Inv Mgmt	8.0%
Wellington Mgmt	7.4%

Short Interest (as of 11/15/21):

Shares Short/Float	1.5%

JELD PRICE HISTORY



THE BOTTOM LINE

The market isn't recognizing the company's earnings upside from both secular growth in homebuilding and from material improvement in operating execution, says Andrew Brenton. Even if the stock's valuation stays where it is, the annual earnings growth he expects over the next five years would translate into an excellent return for shareholders.

Sources: Company reports, other publicly available information

housing supply chain. In interior doors in the U.S., for example, it's really just Jeld-Wen and Masonite, both of which can be counted on to act rationally as demand picks up. In addition to strong market demand, under Gary Michel the company has also re-focused on innovation and has developed multiple new product lines that will launch in coming years.

How discounted do you consider the stock at today's share price of just over $25?

AB: In our model we assume 5% organic revenue growth over the medium term. While that somewhat reflects the tailwind we expect from a housing-market rebound, price increases and new-product introductions, that growth is still meaningfully lower than management's targets. Over five years we expect EBITDA margins to reach almost 14%, also below management's target as well as peer levels, but a material improvement from today. We also think the company has strong liquidity going forward, which we expect to result in material share buybacks. That would continue the current trend, as the company has bought back nearly 9% of its outstanding shares this year.

I don't want to tell you our intrinsic-value estimate because it is so high, but another way to look at Jeld-Wen's valuation is to note that the shares trade at a less than 11x forward P/E. With margin improvement and buying back shares, we think the bottom line over the next five years can grow, on average, at 20% annually. Even if valuation stays where it is, that would provide an excellent return for shareholders.

Does it concern you that Onex exited its position in the company in August?

AB: We don't have any inside information on that, but we believe Onex did very well on what was a 10-year-old investment, so it doesn't surprise us that they moved on. We like that half of their final stake was bought back by the company itself. We think management is smart about capital allocation, so were happy to see they agree with us that the shares are undervalued.

We're assuming you had to sell one or more holdings to add Jeld-Wen to the portfolio. Tell us what went into the decision for at least one of those.

AB: One source of funds was Alimentation Couche-Tard [Toronto: ATD.B], the large operator of gas stations and convenience stores. We think it's a terrific company that's very well run and is well positioned to take share from mom-and-pop operations in what is a still fragmented industry in a number of geographies. But at the same time the shares got closer and closer to our estimate of intrinsic value, we started to be increasingly concerned that investors weren't fully processing the longer-term risks to the company from what might be a permanent decline in gasoline consumption as electric vehicles proliferate. It's not that we think trouble is imminent, but it just made sense to swap this out to buy something like Jeld-Wen that trades at a much steeper discount to intrinsic value. That's how we manage any frothiness in markets – it's all about margin of safety. Investors who lose sight of that are asking for trouble. VII

Investor Insight: Ruane, Cunniff

Ruane, Cunniff & Goldfarb's Arman Gokgol-Kline, Trevor Magyar and Chase Sheridan explain why they're okay with spending months on a potential idea that might go nowhere, how they've tried to upgrade a venerable strategy and process, and why they see mispriced value in Charles Schwab, Universal Music, CarMax and Intercontinental Exchange.

All long-standing investment firms are challenged with, as you put it recently, "evolving and adapting in response to change while holding fast to core principles." Talk first about the core principles to which you as a firm have held fast.

Arman Gokgol-Kline: Our North Star principle has always been to act as an owner of a business as opposed to the owner of a piece of paper. Our process and thinking is focused on understanding and assessing the businesses we're investing in over long periods of time, because we ultimately expect to earn the returns the business does.

There was no better year than 2020 to illustrate the humbling nature of the investing profession. We readily admit that we were completely blindsided by the onset of the pandemic. More importantly, even if somehow we'd seen it all coming, we still wouldn't have guessed how governments and markets would react and the second-order impacts those reactions would have. Answering questions about the future turns out to be a sobering challenge even if you have a crystal ball. Which is why we try to answer as few of those types of questions as possible, and why we try to confine ourselves to the easier questions rather than the harder ones.

We believe with enough research and thoughtful debate, we can make useful predictions about the future performance of an individual business. That task is more manageable if we focus on competitively advantaged businesses, which are naturally easier to assess. It's even more manageable if we invest only with gifted management teams, who are more likely to navigate the potholes that will inevitably open up. It's more manageable still if we focus on businesses that can grow independently of economic circumstances, allowing us to ignore the weather, so to speak, and worry only about if we're right, not when we're right. Finally, as value investors, it helps to purchase stocks at prices that incorporate a margin of safety, because then when we're wrong, we're less likely to be very wrong, and when we're right, every so often we'll be really right.

ON VALUING GROWTH:

It's just very hard for a prudent person to project 20% compound earnings growth over a decade or more.

What's typically going on that makes these types of companies trade with a margin of safety?

AG: The list is long and you've likely heard it many times before, but in general there are things going on in the economy, the industry and/or the business that are disrupting the equilibrium and causing the market to be skeptical or less optimistic about a company than we are. In those moments of flux, when the market seems to have an unsure or bifurcated view, we try through our research and process to see if we can arrive at a clearer view of the company's future over time.

Trevor Magyar: One thing I'd add is that our hit rate on research projects is low. Sometimes we can't get comfortable with a business. Other times we can, but we don't arrive at a sufficiently differentiated view of it. It's not uncommon for us to spend months or sometimes years on a potential idea and in the end decide not to move ahead. But because we have 30 investment professionals and run a concentrated portfolio with positions we tend to hold for a long time, we have the luxury of spending a lot of time on ideas that may not go anywhere. That's a totally acceptable and even expected outcome of our process.

I'd also add that we believe markets are prone to undervaluing long-duration growth potential. It's not because other investors aren't smart, it's just very hard for a prudent person to project something like 20% compound annual earnings growth over a decade or more. But when you go back to the video tape, so to speak, there are companies that have done exactly this. A significant portion of Sequoia Fund's outperformance over its 50-year history has been driven by a relatively small number of investments in companies that created incredible amounts of value over sustained periods of time. Identifying such companies ahead of time is extremely difficult, but we want to own businesses that we think have at least the possibility of producing these sorts of outlier outcomes.

As a topical example, describe how a company like Taiwan Semiconductor [TSMC] fits the profile of what you like to own, and explain why you believe it might be underappreciated today.

Chase Sheridan: Investors have a conundrum: you can find businesses that earn high returns on invested capital, but they typically don't require a lot of capital. It's rare to find businesses that can invest lots and lots of capital while still maintaining that high ROIC. We believe there are very few businesses in the world that can do that on the scale of TSMC.

The company is going to invest more than $100 billion in capex over the next three years, and we have high confidence the return they earn on that will be commensurate with historical rates, with after-tax ROICs of around 30%. What is it about this business that allows that? Those kinds of returns obviously convey a very strong market position. Each generation of logic semiconductor is defined

by its process node, which corresponds to its feature size. Generally the smaller the node the better the performance and power efficiency. For TSMC's chips, there's quite a lot of competition at 28 nanometers or greater. From 7 to 28 nanometers the only real check on TSMC's pricing power is Samsung, maybe at times Intel. But below 7 nanometers there's really no one. Others have struggled to keep up at the leading-edge node, where TSMC's lead has only extended. For those products they're the only game in town and they charge accordingly.

That type of competitive lead in integrated-circuit manufacturing doesn't change often or easily. Customers like Apple are highly reliant on TSMC's design and manufacturing expertise, and a competitive product would have to be better for a number of years before a customer will switch foundries. And this is in a market with products that are incredibly important to the world; they truly drive the progress of technology forward. In smartphones, unit growth potential for TSMC is low, but they are constantly able to increase their content per phone. In high-speed computing there's considerable unit growth, driven primarily by investment around artificial intelligence and cloud computing.

So TSMC has a leading position in a vitally important market, and we think there's a pretty high level of visibility that they'll maintain that position for many years. They outspend their competition on R&D. They have a very entrepreneurial culture, so no one is going to outwork them. It's a great position to be in.

Even with all that, the stock today trades at 24x estimated 2022 earnings. You're paying just over a market multiple for a business that is wildly better than your typical business. Why is that the case? I'm just speculating – you often don't really know why something trades for a price you deem attractive – but there are a few reasons that might be the case here. There is China's relationship with Taiwan and the increasingly hawkish stance of Premier Xi toward Taiwan. There may be concerns over competition, both from Intel trying to reclaim the lead in manufacturing and from the Chinese investing to build their competitiveness in the lagging nodes. It's always an ongoing discussion, but we've satisfied ourselves that these issues at least over the next five years are not likely to materialize. That's why the shares, in our view, remain attractive even after a considerable run.

ON EVOLVING:

Perhaps the most significant change with regards to portfolio construction is our approach to cash.

The investment committee on which you all sit was a new construct put in place in 2016 for managing the Sequoia Fund portfolio. Coming back to the subject of adapting to change, why did you set it up the way you did?

AG: We set up a five-member investment committee, four of whom vote on any portfolio activity. We did it that way to bring more perspective and creativity to the management of the team, the process and the portfolio. Rather than having one or two people driving everything, we have five who all have a long history with the firm but think slightly differently about companies and businesses and the opportunities they present. We want to ensure we're keeping an open mind and that we're looking for new ways to execute our core philosophy as markets and industries evolve. In this regard, we think more heads are better than one.

Another thing we did was to not require that committee decisions be unanimous – we can buy or sell with three votes. We think that improves the quality of our discussion because we don't have to "go along to get along" and reach a consensus. Dissent can be a virtue in and of itself, and in the firm's history there have been times when dissenting arguments either weren't voiced or weren't adequately heard. We hope our current structure and decision process minimizes the risk of that.

What types of portfolio management changes have you instituted under the new structure?

TM: In terms of portfolio construction, I don't know that a whole lot has changed. We've always taken the view that the only way to outperform is to concentrate. The weighting of the top-ten positions in the fund hasn't moved around a lot over the past 50 years, and today is right around the long-term average of 60%.

We did institute a limit on single position size, which is 20%. For what it's worth, the largest holding at the end of September was in the 8% area.

Perhaps the most significant change with regards to portfolio construction is our approach to cash. For much of Sequoia Fund's history, cash levels were in the 15-20% range and sometimes even higher. We concluded that this hasn't served our clients terribly well. It can feel comfortable at times to hold a lot of cash, but for it to make sense you have to be convinced you can deploy it into just the right things at just the right moment. I don't know that we were bad at that, but it wasn't a core competency. We believe our clients will be better served if we're more fully invested on average and over time.

The cash balance in the Sequoia Fund was 15% or so when the investment committee was formed in 2016. At the moment it is running in the low single digits.

Does that imply you're finding plenty to do in today's market?

AG: What's more attractive at any given time in the market obviously varies. Five or six years ago we were finding incremental opportunity in higher-growth companies like an Amazon and Alphabet, but we'd probably say at the margin today we're seeing more to do in lower-P/E ideas like a Micron Technology [MU] and Anthem [ANTM]. We think there's always opportunity somewhere, it's our job to go find it.

We wanted to ask about a couple in-the-news portfolio holdings you added to in the third quarter. First, how are you processing what's going on at Facebook [FB], aka Meta Platforms?

TM: Facebook has many of the characteristics you'd expect to see of a highly advantaged business. It has strong network effects. It benefits from a massive move of advertising dollars to the digital space. Profitability is extremely high, and earnings continue to grow at a healthy clip. By the numbers, if the future looks anything like the recent past the stock is objectively quite attractive.

Of course, that's not the end of the story. To really regard the shares as attractive you also have to believe in the sustainability of the various businesses they have today. That's much more of a qualitative exercise, involving difficult judgements on how users, regulators, legislators and competitors will act going forward. We could talk about this for hours – and we continue to wrestle with all of it intensely – but the fact that we own it tells you where we come out on it.

Same question on Prosus [Amsterdam: PRX], which is more or less a proxy for Chinese Internet giant Tencent.

AG: The answer is similar to what Trevor described for Facebook. Tencent has some dominant Internet franchises in an extremely dynamic and growing market. The stock if those franchises stay even modestly on the path they've been on looks inexpensive. Then, of course, there's the next level, with questions about the regulatory environment in China that are even tougher to answer than they are with Facebook.

Where we come out is that Tencent's businesses have earned their place, deserve to exist, and can prosper even in a more restrictive regulatory environment than the past. At the valuation we're paying at the moment, we think we're being compensated for the prevailing risks. That we're less certain about that is reflected in the relative size of our position in Prosus versus our position in Facebook.

Explain your broader investment case for Charles Schwab [SCHW].

TM: Schwab pioneered the discount-brokerage business in the 1970s and today is a large and well-rounded investment-services firm with around $7.5 trillion in client assets. That makes it one of the largest asset managers in the world, right up there with Vanguard and a bit behind BlackRock, just to provide some perspective.

ON FACEBOOK/META:

We could talk about this for hours, but the fact that we own it tells you where we come out on it.

We like the combination of Schwab's scale and its low-cost, consumer-friendly model. For decades the company has been pulling large sums of capital away from the full-service wirehouses and other higher-cost channels. The percentage growth rate of Schwab's net new assets has of course moderated over the decades, but over the past five years it has averaged 7% per year. At Schwab's size, that's pretty incredible. The crux of our thesis is that this asset gathering continues and that the company's scale will allow it to keep giving back to consumers in the form of lower prices and more services and products, while at the same time delivering attractive returns to shareholders.

How are you assessing today's quite dynamic competitive environment?

TM: At the moment people are focused on Robinhood and other similar outfits. A few years ago the concern was more about robo-advisors. I wouldn't say these concerns or other similar ones are outright misplaced. But when we step back, we see that over the past five years Schwab has actually improved its competitive position. It launched its own robo-advisors. It took the proactive step of entirely eliminating commissions on most equity trades. And then soon after commissions went to zero, Schwab bought TD Ameritrade, adding $1.5 trillion in client assets, significantly expanding its business with Registered Investment Advisors, and bringing on the thinkorswim active-trader platform, a strong asset in a strategically important part of the market. As it has consistently done, the company uses scale to improve its position against the competition.

Usually when people talk about Schwab they mention its interest-rate sensitivity. Do you see that as a plus or a minus?

TM: Building out Schwab Bank took the company down a somewhat tougher road in terms of the business model, but given the fee compression on the brokerage side we believe monetizing client cash through net interest margin was a logical direction to go. You could argue that Schwab Bank resulted in a step down in business quality for the company, but strategically it has absolutely been the right thing to do.

The fact that Schwab Bank is a material driver of revenues and earnings means that you as an investor looking to value the business have to confront the resulting interest-rate sensitivity. If you have a clear and firm view that rates are going to rise, then Schwab might look dirt cheap. If you have a clear and firm view that rates are destined to go to zero and stay there forever, then Schwab might look overvalued. As much as possible, we're trying to avoid making a big call on the rate environment. From when we first bought this in 2016 up to today, we think we're paying a reasonable multiple of earnings across a range of rate environments that we'd characterize as normalized.

How reasonable do you consider the valuation at today's share price of $80?

TM: Schwab can continue to gather net new assets at 6-7% a year or so, which gets you double-digit revenue growth or at least close to it when you factor in long-term market appreciation. Expenses have been quite well managed, growing

INVESTMENT SNAPSHOT

Charles Schwab
(NYSE: SCHW)

Business: U.S. provider of brokerage, banking and asset-management services; last year bought top competitor TD Ameritrade and now has roughly $7.5 trillion in client assets.

Share Information (@11/29/21):

Price	**80.10**
52-Week Range	48.51 – 84.49
Dividend Yield	0.9%
Market Cap	$149.44 billion

Financials (TTM):

Revenue	$17.99 billion
Operating Profit Margin	43.4%
Net Profit Margin	30.1%

Valuation Metrics
(@11/29/21):

	SCHW	S&P 500
P/E (TTM)	31.4	28.8
Forward P/E (Est.)	23.9	22.4

Largest Institutional Owners
(@9/30/21 or latest filing):

Company	% Owned
TD Asset Mgmt	14.1%
Vanguard Group	6.1%
T. Rowe Price	4.7%
Wellington Mgmt	4.4%
Dodge & Cox	4.1%

Short Interest (as of 11/15/21):

Shares Short/Float	0.7%

SCHW PRICE HISTORY

THE BOTTOM LINE

The company's scale and asset-gathering prowess should allow it to keep giving back to customers in the form of lower prices and more products and services, says Trevor Magyar. From today's valuation, he expects as a long-term business owner to continue to benefit from double-digit annual profit growth as well as at least modest return of capital.

Sources: Company reports, other publicly available information

at a mid-single-digit rate over long periods of time. If that trend continues, profits should grow faster than revenues. Then on top of that there's the potential for modest return of capital.

Consensus earnings estimates for this year are $3.25 per share, so the P/E is less than 25x. For the business I just described, we think that's attractive. Earnings may bounce around with rates and the equity market and then how people value those earnings may bounce around as well, but we've approached this investment with the mindset of a long-term business owner and that's what we'll continue to do.

Describe why you're high on the long-term prospects for Universal Music Group [Amsterdam: UMG].

AG: The global music industry, which really implies recorded music from Western artists, peaked as a business in 1999 when CDs were the main way people consumed music. Primarily due to digital pirating, the industry collapsed soon thereafter and went into decline for 15 years. Even today, revenues from recorded music in nominal terms are below 1999 levels.

What changed everything in the mid-2010s was streaming, with companies like Spotify offering all-you-can-eat digital subscriptions to replace an interim step where people were buying one song at a time on services like iTunes. This solved a number of key issues for consumers and allowed the music business to stabilize and start growing again. From 2014 to today, streaming went from a small minority of Western music distribution to the major driver.

This created a very interesting dynamic in the market, and the big question to answer was whether the power dynamic in the industry would shift away from the traditional labels as digital streaming providers moved to create and own content themselves. Our view was that this was not going to happen. Unlike with video content, more than half of the consumption of music was from the "catalog," which means at least 18 months old, and just under half is deep catalog, which means several years old. If I'm Spotify it's hard for me to disrupt the existing players for the simple reason that I need their content.

In addition, we thought the big labels had an important role to play with their ability to match the market power of the biggest distribution platforms. Even if I'm a global superstar, I can't have the same conversation with a distributor that my label with 30-40% of the market can have with that same distributor. That's even more relevant in the case of Universal, which arguably has the strongest catalog of recorded and published music. Last year it had nine of the top ten streaming artists on Spotify, and artists it represents account for around four in ten of the total streams across the leading platforms.

Is this a growth market?

AG: The cost to consume incremental music under a premium streaming subscription is zero, so consumers are incented to listen to more music. In 1999 the average American consumer spent something like $80 per year on new music content, which was, say, five albums. Today for an only somewhat higher annual cost that consumer has access to tens of millions of

songs on demand, a base that's growing all the time.

Another driver of demand is that music is easier to consume. In the old days I had to carry around a tape or CD and have something to play it on. In the house I needed a stereo system. Today we have access to music through a variety of devices that are more affordable and user friendly. Smartphones with high-fidelity ear buds. Smart speakers in homes. I can just ask Siri or Alexa to play whatever I want whenever I want it. Americans' music consumption in the past five years has increased 25%, and it continues to increase.

The last thing I'd highlight is that the adoption curve for streaming music hasn't yet matured. In developed markets that's characterized more by older demographics getting on board, while in developing markets younger adopters are still increasing rapidly. All in, the value proposition for music remains compelling, and the economic, technological and geographic barriers to accessing it are receding. We believe all that drives continued healthy growth for the global industry.

The shares don't appear particularly cheap at today's price of €25.

AG: On consensus estimates the stock trades at 33x forward earnings, which is obviously a healthy multiple. The question is what are you getting for that? As streaming takes more share, as consumer penetration increases in both developed and developing markets, and as new venues like TikTok, Roblox and Peloton drive incremental demand, we think annual top-line growth for Universal – with significant duration – can be in the high single digits if not 10% or more. The profitability of the new revenues is better than that of the old, and there is fixed-cost leverage in this business, so margin growth should allow earnings to grow faster than that. Add in what is likely to be an increasing dividend stream, and we consider the long-term return profile here to be attractive. That remains the case even if there are some headwinds from the multiple over time.

From music to used cars, describe the long-term upside you see in CarMax [KMX].

TM: We've owned CarMax since 2016, but we've followed the company for a very long time – the first memos we have on it in our system go back to 1999. It is a leader in the massively fragmented used-car market, which in the U.S. is a $750 billion market with about 40 million vehicles sold per year. There are over 40,000 U.S. used-car dealers, and the top 100 account for less than 10% of the total market. CarMax has 2% share overall, roughly twice that for the late-model cars on which it focuses.

What has differentiated the company from a buyer perspective is its consumer-friendly, no-haggle model. You could describe the typical used-car sale as a game of three-card Monte, with the dealer playing off the price of the used car, the terms on any trade-in and the terms on the financing. With CarMax, all of those are set and not up for negotiation. The brand promise is that the consumer is going to get a reasonable deal on each and every part of the transaction.

We've always wondered why that's been so hard to replicate.

INVESTMENT SNAPSHOT

Universal Music Group
(Amsterdam: UMG)

Business: Discovery and development of musical artists and songwriters and the marketing, distribution, sale and licensing of their related audio and audiovisual content.

Share Information
(@11/29/21, Exchange Rate: $1 = €0.89):

Price	**€25.01**
52-Week Range	€22.55– €27.96
Dividend Yield	0.0%
Market Cap	€46.24 billion

Financials (TTM):

Revenue	€7.80 billion
Operating Profit Margin	18.0%
Net Profit Margin	13.9%

Valuation Metrics
(@11/29/21):

	UMG	S&P 500
P/E (TTM)	43.2	28.8
Forward P/E (Est.)	33.3	22.4

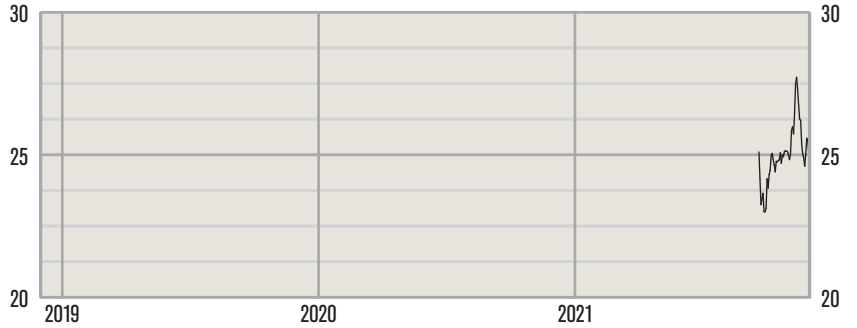
Largest Institutional Owners
(@9/30/21 or latest filing):

Company	% Owned
Pershing Square Capital	10.0%
Fidelity Mgmt & Research	1.4%
Capital Research & Mgmt	1.3%
Vanguard Group	1.0%
BlackRock	0.6%

Short Interest (as of 11/15/21):

Shares Short/Float	n/a

UMG PRICE HISTORY



THE BOTTOM LINE

The company is well positioned to benefit as the economic, technological and geographic barriers to accessing music continue to recede worldwide, says Arman Gokgol-Kline. Through earnings growth and an increasing dividend stream he expects the return profile on the stock to remain attractive even if there are headwinds from the multiple over time.

Sources: Company reports, other publicly available information

TM: For a time people weren't sure this was a model that really met an unmet consumer need. As CarMax thrived, that question was effectively answered. But it has still proven to be a hard model for others to implement. Part of that stems from the fact that you have to be all in on it. You change the salesperson's approach – they're no longer selling as much as they are conveying information and helping the customer through the process. That's a difficult transition not only culturally but also economically. If you make the switch, you're guaranteed to be selling fewer cars at the beginning. You have to really stick with it long enough for buyers to understand and believe what you're doing. That's proven difficult for many to do.

In addition to being differentiated in the consumer's eyes, CarMax has also built significant advantages around executing the model very tightly. The business involves a lot of heavy lifting operationally speaking, with regards to sourcing, reconditioning, distributing and pricing. Over the decades CarMax has become very good at all of this, which we also think is very difficult to replicate.

So why is this interesting now? In the past the answer to that question was that CarMax could continue to take share in this massively fragmented market. If the used-car market grew at a GDP kind of rate, CarMax would grow at a multiple of that, generating a lot of free cash flow that it could return to shareholders. It wasn't hyper-growth, but good, solid profitable growth over a very long period of time.

What's changed? Various players have tried to attack this market in different ways over the years, but one that has really broken through is Carvana [CVNA], which sells used cars exclusively online. They've been growing units at a truly gangbusters rate and have shown that some percentage of customers are interested in transacting in this way. That was an important proof point.

The question for CarMax, then, is whether the emergence of online used-car buying is a risk or opportunity. We believe it's an opportunity, and we further believe that the company is sufficiently on the case. They are transforming the entire organization to develop omnichannel selling capabilities, serving customers exactly as they want to be served – online only, a hybrid of online and in-store, and in-store only. As a result of that effort we expect the company to grow at the same sorts of rates going forward that it has in the past, if not better. Significantly, we don't think the online used-car market is winner-take-all or even winner-take-most. Instead, we believe it's winners-take-more. Our thesis is that CarMax will be in the small group of scaled, sophisticated players who take share from everybody else.

From today's share price of $146.50, to what extent do you expect to benefit from that as a shareholder?

TM: Notwithstanding its transformation, we don't expect the company's financial progression to look so different than the past. We see high-single-digit top-line growth, though with a heavier weight on comp-store growth versus new-store growth. We expect some operating leverage, which should push net income growth above 10%. As it has in the past, we expect CarMax to convert the majority of net income to free cash flow and re-

INVESTMENT SNAPSHOT

CarMax
(NYSE: KMX)

Business: Sources, sells, finances and services used cars in the U.S. through more than 220 company-owned retail outlets; increasingly selling direct to consumers online.

Share Information (@11/29/21):

Price	**146.48**
2-Week Range	90.29 – 155.98
Dividend Yield	0.0%
Market Cap	$23.63 billion

Financials (TTM):

Revenue	$27.25 billion
Operating Profit Margin	5.9%
Net Profit Margin	4.3%

Valuation Metrics
(@11/29/21):

	KMX	S&P 500
P/E (TTM)	20.9	28.8
Forward P/E (Est.)	20.3	22.4

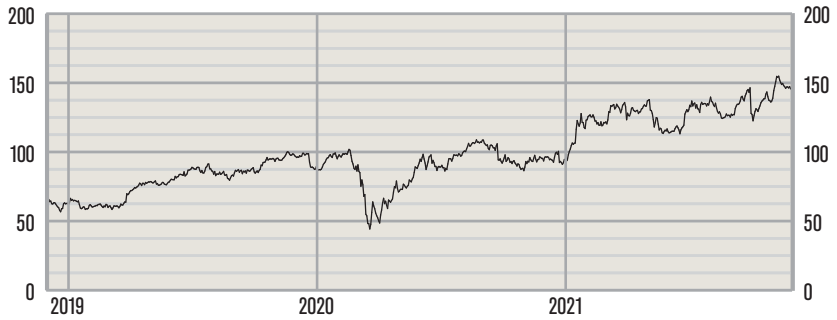
Largest Institutional Owners
(@9/30/21 or latest filing):

Company	% Owned
Vanguard Group	10.3%
Principal Global Inv	5.5%
Primecap Mgmt	4.5%
Ruane, Cunniff & Goldfarb	4.4%
Akre Capital	4.4%

Short Interest (as of 11/15/21):

Shares Short/Float	3.0%

KMX PRICE HISTORY



THE BOTTOM LINE

As it transforms its entire organization toward omnichannel selling, Trevor Magyar believes the company can continue to grow revenues and profits at the rate it has in the past, or better, with potentially even longer duration. He believes annual net income growth can exceed 10% and that capital return should further enhance shareholders' total return.

Sources: Company reports, other publicly available information

turn much of that free cash to shareholders, enhancing the total return.

At today's price the shares trade at around 20x the consensus EPS estimate of $7.25 for the fiscal year ending this coming February. If they execute on omnichannel, we think the business will be future-proofed to a greater degree than it has been in the past and it will be set up for continued success over a long, long time. That duration is quite valuable.

What do you think the market might be missing today in exchange operator Intercontinental Exchange [ICE]?

CS: ICE operates in a number of what we consider very good businesses: derivatives trading and clearing, equity and options exchanges (including the New York Stock Exchange), a data business which provides proprietary financial-instrument pricing and reference data, and a newer segment providing mortgage-related technology that facilitates origination, registration and closing.

The businesses don't require a lot of capital, benefit from network effects, and often reinforce each other. When you trade a futures contract on an ICE exchange, for example, you have to clear it with them as well. The company's trading and clearing businesses generate data that can be repackaged and sold. Operating margins are around 50% and net margins typically run in the mid-30% range.

Part of the appeal here is the better-than-GDP secular growth of the underlying businesses. I worked as a derivatives trader back in the 1990s and it still impresses me the extent to which new products are created and trading volume grows – in mature markets and even faster in emerging ones. Liquidity begets liquidity, and ICE is a long-term beneficiary of that.

The mortgage business – dramatically expanded last year with the $11 billion acquisition of Ellie Mae – is the newest and most interesting opportunity. ICE is essentially trying to digitize the residential-mortgage process. Today, loan origination takes about 55 days from application to close in the U.S. There's a lot of back and forth between lender and client. You have to navigate a messy state-by-state regulatory framework and a lot of required paperwork. ICE's goal is to streamline that process from start to finish by providing a connected, value-added platform through which transactions can more seamlessly and rapidly flow. If they can do that, they expect to realize at least a small portion of what could be a massive collective savings in time and money.

This is a good example of the importance we put on management. Jeff Sprecher founded the company in 2000 as a digital exchange to trade energy derivatives and has built it by thoughtful acquisitions since. There have been times in the company's history when he's seen opportunities that weren't at all obvious to others, but turned out to be significant drivers of incremental shareholder value. His approach to consolidating and integrating technology solutions in the mortgage market is an example of that vision. Another example could be the company's early efforts around cryptocurrency, mostly through a 68% ownership in Bakkt [BKKT], which offers a wallet and exchange mechanism for digital assets including loyalty points, gift cards and cryptocurrency. It's very had

INVESTMENT SNAPSHOT

Intercontinental Exchange
(NYSE: ICE)

Business: Operator of derivatives, equity, fixed-income, energy and other exchanges; also provides a variety of financial and mortgage-related data and processing services.

Share Information (@11/29/21):

Price	**131.90**
52-Week Range	104.55 – 139.79
Dividend Yield	1.0%
Market Cap	$73.06 billion

Financials (TTM):

Revenue	$6.98 billion
Operating Profit Margin	48.9%
Net Profit Margin	33.7%

Valuation Metrics
(@11/29/21):

	ICE	S&P 500
P/E (TTM)	24.4	28.8
Forward P/E (Est.)	24.3	22.4

Largest Institutional Owners
(@9/30/21 or latest filing):

Company	% Owned
Vanguard Group	7.3%
Capital Research & Mgmt	6.4%
BlackRock	4.4%
State Street	4.4%
Magellan Asset Mgmt	3.8%

Short Interest (as of 11/15/21):

Shares Short/Float	0.7%

ICE PRICE HISTORY

THE BOTTOM LINE

The company's businesses are capital-light, benefit from network effects and often reinforce each other, which combined with end-market expansion can result in double-digit annual profit growth, says Chase Sheridan. He doesn't believe that potential is well reflected in the stock's forward multiple at only "a couple turns higher" than the S&P 500.

Sources: Company reports, other publicly available information

to model the value of what a Jeff Sprecher is going to do next, but we want our portfolio to be exposed to the potential happy surprises that visionary founder-managers can produce.

How inexpensive do you consider the shares at today's $132 price?

CS: Going business by business we think ICE can generate roughly mid-single digit annual revenue growth, with higher potential growth for the mortgage business. We consider the company appropriately levered and there is a high proportion of fixed costs in many of its businesses. The financial and operating leverage combine to give you potential double-digit growth on the bottom line. Much of the growth is very low cost, so you should also get a yield of more than 3% between dividends and buybacks. For that at today's share price you're paying 24x next year's estimated earnings, only a couple turns higher than the S&P 500.

Why isn't the multiple higher? Part of it may be that the market is worried about the balance sheet, but we think the current 3.2x (and falling) net debt to EBITDA ratio is more than manageable. Part of it may be an unwillingness to contemplate the upside if the mortgage business really works. And part of it just may be that ICE lacks a visible near-term catalyst, so the investment may require some patience, which goes against people's wiring. There's a famous mathematical example of folding a piece of paper: If you start with a sheet of paper one-tenth of a millimeter thick and fold it in half 42 times it will stretch to the moon. But after the first ten folds you've made it only to five centimeters. It's just hard to appreciate what's possible in a company like this when the founder reinvests capital at attractive rates for a very long time.

To get a sense of what prompts you to sell, tell us about two stocks you sold earlier this year, starting with Mastercard [MA].

TM: Mastercard remains the same fantastic business that it has always been, with an extremely strong position in a secularly growing market. I'd say upfront that we don't know if we exited at the perfect time. There have been many times during our holding period when we could have created plausible and smart-sounding arguments for selling, and we feel good about not having done so.

Why sell now? We basically concluded that the payments space was increasingly dynamic and that some of the competitive threats that seemed distant in the past now seem somewhat less so. The number of companies trying to develop alternative payments systems is exploding in the U.S., the rest of the developed world and emerging markets. In some geographies the new technology is beyond what's being used in the U.S. We're not convinced any one competitor is the primary challenge to the U.S. card networks, but when you see the sheer number of threats and the traction some of them are getting, you have to worry about it, and we did. Time will tell if we were right.

ON MASTERCARD:

We concluded some of the competitive threats that seemed distant in the past now seem somewhat less so.

With a2 Milk [Sydney: A2M], you described selling because "changed facts caused us to change our minds." Please elaborate on that.

AG: To introduce the business, this is a New Zealand-based company that early on caught onto the idea that because the a1 Beta-casein protein in cow's milk can be problematic health-wise for some people, there was a market for developing herds that produce only a2 Beta-casein proteins and selling that as a2 milk or a2 milk-based infant formula. The idea caught on in New Zealand and Australia and then started to have success in export markets, most prominently with infant formula in China. We found the concept intriguing, with a disruptive product at a very positive but still relatively early stage of consumer adoption.

A couple of things happened. First, the CEO who we thought highly of left the company due to what were described as internal issues with the company's board. Second, the pandemic disrupted the key "daigou" sales channels in China, where resellers acquired the infant formula in bulk, imported it to China, and then sold it mostly through online marketplaces. So we had some concerns about the board, and started to question whether the daigou sales channel would return to its pre-pandemic productivity. We concluded the thesis was no longer valid and that the stock had become unattractive relative to alternatives.

Is there a risk that the type of high-quality value investing you've long espoused becomes too popular and it's harder to distinguish yourselves as investors?

TM: It is probably true that focusing on quality, and even more specifically the combination of quality and some amount of growth, has become something like accepted wisdom for value investors. We have Warren Buffett to credit for that, although I'd point out that he was practicing it and preaching it for decades before the world fully came around to the idea.

So just knowing that is not enough. You have to take that and build a process and philosophy around it that is different and better in rooting out companies that can actually compound value at high rates over long periods. We also believe actually investing as a long-term business owner is an advantage that isn't as widely practiced. If you look at the number of investment firms that truly hold over a long period of time – and that outperform as a result – there aren't that many. It's one thing to say you care about long-term value and another to actually behave as a long-term business owner. None of this is easy, but it's never been easy. That's what makes it interesting. VII

Hitting for Power

Investors often emphasize being right more often than wrong as the prime contributor to success. Christopher Smith explains why he thinks that "casually accepted truism ... is incomplete at best and flat wrong in many respects."

Editor's Note: *In his latest quarterly commentary Chris Smith of Artisan Partners' $5 billion (assets) Antero Peak Group [see also p. 7] examines the virtues of – to use a baseball analogy – hitting for power rather than batting average as an investor. He prefaces the piece with a quote from investor Stanley Druckenmiller: "I've learned many things from [George Soros], but perhaps the most significant is that it's not whether you're right or wrong that's important, but how much money you make when you're right and how much you lose when you're wrong." Smith explains why he believes that concept is so important for an investment manager and how he's built it into his process accordingly. The following excerpt from his commentary is shared with his permission.*

We often hear the batting average (or "hit rate") baseball analogy in an investing context as something along the following lines: "If you can be right more than 50% of the time, you will be successful." This is a casually accepted truism in our industry. Yet in practice, we believe this concept is incomplete at best and flat wrong in many respects. We have given this idea a great deal of attention in creating both our investment and risk-management processes, and we take a different stance. Here, we will share some of our thoughts on this topic, as we think there are strong mathematical grounds that demonstrate the benefits of our process and culture, which is much more focused on "payoff" versus "batting average." Analytics has changed baseball significantly in the past decade – out with batting average and in with on-base plus slugging, or OPS. Why can't it have the same effect on our industry?

We believe that our process structured around a focused portfolio requires an exceptionally high level of upfront diligence and ongoing analyst focus. The intent of this approach is to maximize payoff – the profitability of relative winners to relative losers – and to optimize sizing, with hit rate a lesser priority. We emphasize large, broad-based and industry-wide inflections that can lead to significant earnings differentiation and sustained changes in valuation multiples. This stands in marked contrast to many widely employed processes that focus on lower concentration and much less tracking error relative to their benchmarks.

Our process leads to higher concentration, and just as important, it leads to far less patience with remaining flat footed with losing positions! This may contribute to higher turnover, but we believe cutting losers is mathematically just as important as sizing up winners. Forgoing this lever in your process will dilute the payoff ratio significantly, and thus the alpha potential.

Laying Out the Math

Defined below are some simple but important items when deconstructing a portfolio's performance.

$$\text{Excess Return} = \text{Hit Rate} * \text{Avg. Profit on Winners} + (1 - \text{Hit Rate}) * \text{Avg. Losses on Losers}$$

$$\text{Hit Rate \%} = \frac{\text{Positions that Beat the Benchmark}}{\text{Total Positions}} \qquad \text{Payoff} = \frac{\text{Profit on Winners Relative to Index}}{\text{Losses on Losers Relative to Index}}$$

Observing the interplay of these variables is revealing. Most portfolios, regardless of how many analysts are on staff, have batting averages around 50% – with the top tier around 55%. This implies a remarkably tight band and sheds light on the natural efficiency of the stock market in aggregate. Payoff levels, in contrast, demonstrate far wider variation from the mean, while having a far greater impact on returns for an unlevered portfolio with reasonable volatility.

For a portfolio with single-name relative volatility of around 10%, the lack of batting-average sensitivity that annual returns have is striking and perhaps nonintuitive. In the example laid out in Exhibit 1, an equally weighted portfolio moving from an industry average hit rate (~50%) to best-in-class (~55%) generates just 100 basis points of additional alpha. On the other hand, improving the payoff from average to top tier has more than 5x the impact on excess returns.

Exhibit 1: Illustrative Sensitivity of Hit Rate and Payoff
Excess return potential by increasing hit rate and payoff percentage

Hit Rate % \ Payoff %	80%	100%	120%	140%	160%	180%	200%
50%	-1.0%	0.0%	1.0%	2.0%	3.0%	4.0%	5.0%
51%	-0.8%	0.2%	1.2%	2.2%	3.3%	4.3%	5.3%
52%	-0.6%	0.4%	1.4%	2.5%	3.5%	4.6%	5.6%
53%	-0.5%	0.6%	1.7%	2.7%	3.8%	4.8%	5.9%
54%	-0.3%	0.8%	1.9%	3.0%	4.0%	5.1%	6.2%
55%	-0.1%	1.0%	2.1%	3.2%	4.3%	5.4%	6.5%

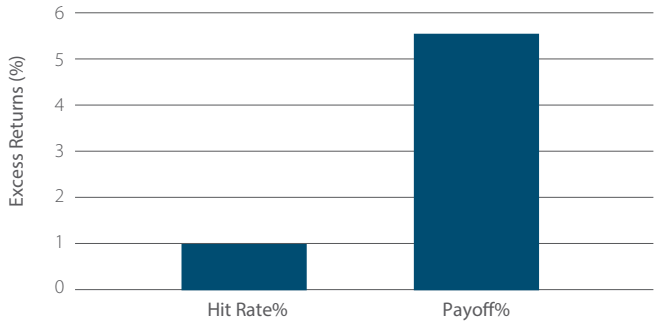
Excess Returns

Source: Artisan Partners. For illustrative purposes only. Excess returns based on incremental increases in hit rate and payoff percentages. Based on an equally weighted portfolio with average single name volatility of 10% from the benchmark.

Because of this, we incorporate an unemotional and ruthless approach that recognizes some simple truths. First, we are going to be wrong often. The unemotional acceptance of this fact has a profound impact on our process and intellectual honesty. We believe we can significantly amplify our returns by recognizing this early on. While seemingly simple, executing this effectively requires a unique, analytically disciplined operating culture of humbleness and self-awareness that we've worked very hard to build and maintain. Second, we are also going to be right a lot, and maximizing these instances with aggressive sizing can gener-

ate substantial alpha. The combination of these factors is a powerful driver of excess returns in a portfolio, far more powerful than what most focus on, the hit rate.

Exhibit 2: Illustrative Impact of Moving from Average to Top Tier
Improving Payoff % to best-in-class would increase excess returns 5X more than improving to best-in-class Hit Rate %



Source: Artisan Partners. For illustrative purposes only. Excess returns for hit rate based on moving from average (50%) to top tier (55%). Excess returns for payoff percentage based on moving from 100% to 200%. Based on an equally weighted portfolio with average single name volatility of 10% from the benchmark.

With this as context, let's also consider some common investment process descriptions of our peers and some constraints that exist within the industry. We frequently hear industry lingo such as knowing companies or management teams better than everyone else – we view this as a requirement of the job and not an edge. Another is buying stocks with significant upside to intrinsic value – again, a requirement of the job and not an edge. Others include low turnover, balanced sector exposure to benchmark, lower tracking error, etc. The list goes on and on.

Consider these statements in the context of the simple analysis already laid out. Empirically, batting average is highly likely to be around 50%, so the drive toward very low turnover handcuffs the manager's ability to aggressively cut losing positions, which depresses the payoff ratio. At the same time, the drive for balance and fear of volatility further lead to under capitalization on the best ideas, yet again pressuring the payoff ratio.

Indeed, these common constraints remove many things that appear to us mandatory for success. It is no surprise in this analysis that if all these rules are followed, even an army of the best analysts is likely to outperform the benchmark only slightly before fees. Paradoxically, these concepts in total for the most part have led to mediocrity in the industry. Said another way, if a team does great research (knows their companies well), has very low turnover and/or low tracking error (balanced sectors, less concentration, etc.) and even achieves an above-average hit rate, its excess returns will probably be somewhere around the equity-fund average fee level of 80 basis points. It's just math.

We view this as strong evidence that we are deploying our most scarce resource well, which we have often said is our time. Our process aims our time and attention naturally toward the largest investments, but also the investments that are not working. We are constantly assessing if we are wrong. We have systems in place to alert us to negative revisions in our fundamental analysis, which allows us to reduce risks earlier in areas where there is adverse change. We know what matters for an investment, and we track those areas intensely.

Maximizing payoff permeates through our process. First, we are extremely focused on not losing money and are continuously probing conviction levels on losing positions, especially when they are large but even when they are small. It has been very rare so far for us to suffer a significant loss on a single position. The systematic structure of our process helps us do this as it aims to remove as much emotion as possible – earnings differentiation and expected outcome are our research outputs. As our research outputs change our perspective changes, and our process leaves little room for us to defend a losing position without sound analytic reasoning. Second, we aim to employ a symmetric process. We are constantly assessing the sizing of winning positions as our thesis plays out, as well as whether we are maximizing our research. Ultimately, all aspects of our process – from our culture to our day-to-day research – are geared towards this outcome, and we are happy that our results reflect what we fundamentally believe drives investment results.

Importantly, if we maintain focus on analytical differentiation and employ a robust risk-management process, there is no mandatory trade-off that results in elevated risk. We have produced positive excess returns (Exhibit 3) with our approach of elevated concentration, high sector active weightings and active portfolio management, without greater volatility or drawdowns.

Exhibit 3: Summary Risk Statistics
As of 30 September 2021

	Annualized Return ITD	Std Dev	Sharpe Ratio	Max Drawdown	Beta
Antero Peak Strategy	25.6%	15.2%	1.6	-14.5%	0.9
S&P 500® Index	16.5%	15.9%	1.0	-19.6%	0.0

Source: Antero Peak Group/S&P. Representative account and Composite inception: 1 May 2017. Risk and return statistics from 1 May 2017 to 30 Sep 2021 based on Antero Peak Composite net returns. Net performance shown for a representative account managed in the Antero Peak Strategy. Past performance does not guarantee and is not a reliable indicator of future results.

We aim to maximize our research efforts through an obsessive focus on optimizing the payoff, which we think is one of our most effective tools to generate risk-adjusted alpha. Our underlying process remains unchanged and we remain committed to finding inflection points that can lead to accelerations in revenue and earnings. We also seek differentiation vs. consensus and thesis duration that can lead to more sustainable ROIC growth and multiple expansion. We think this combination of rigor and culture gives us a higher probability of achieving investment success. VII

Take Two

Many CEOs responsible for 100-bagger shareholder returns are content to ride off into the proverbial sunset and enjoy the spoils of their efforts. Investors might want to note that Warren Kanders of Cadre Holdings isn't doing that.

Not many business leaders sport the resume of Warren Kanders, the 64-year-old chairman and CEO of Cadre Holdings. Among the many highlights on his CV is taking control in 1996 of a tiny company called American Body Armor and building it over the next 12 years into what became Armor Holdings, which he sold for $4.5 billion in 2007 to U.K. defense contractor BAE Systems. Armor shareholders over that period enjoyed a more than 100-bagger, as the stock increased from 75 cents per share in 1996 to $88 upon the company's sale.

Kanders, however, was not entirely through with his original masterpiece. In 2012 he convinced BAE Systems to sell back to him a small piece of Armor Holdings, whose primary business was selling bullet-proof vests and holsters to law-enforcement agencies. That business at the time generated annual earnings before interest, taxes, depreciation and amortization of roughly $8 million, a rounding error for BAE. But following essentially the same buy-and-build playbook as before, in the same general industry sectors, Kanders set about building the company anew. This year the renamed Cadre is expected to earn closer to $70 million in EBITDA, and earlier this month Kanders invited external shareholders along for the ride, taking the company public in an IPO at $13 per share.

Dan Roller of Maran Capital Management thinks investors would be smart to hop on board. Cadre has strong brand franchises in holsters, body armor and bomb-disposal suits, selling mostly to law-enforcement and military customers in the U.S. and Europe. These markets don't grow rapidly but they do grow consistently, and Roller expects that the tightly managed company can through pricing power and ongoing efficiency gains turn modest end-market growth into 10% annual company EBITDA growth. That doesn't include additional growth he expects from internal reinvestment or from acquisitions that open new geographic and product markets, such as those targeting fire departments and emergency medical services [EMS] providers.

While the market of late has started to take notice, Roller still sees plenty of upside from today's $20 share price. Even with no acquisitions, he believes EBITDA will increase at faster than 10% per year, rising from today's $70 million to around $100 million by 2024. Debt in the no-acquisition scenario would be paid off, and even at 10x EV/EBITDA – perfectly reasonable for a company with Cadre's profitability profile and stability, he says – the shares would sell for closer to $30.

With that as a base case, he sees ample upside optionality from Kanders, who still owns 49% of the company, doing what he does best – redeploying capital into value-accretive acquisitions. "He's in the process of doing again what he did before with Armor, literally as much as figuratively," Roller says. "If you're picking a jockey to bet on, this would seem to be a pretty good choice." VII

INVESTMENT SNAPSHOT

Cadre Holdings
(NYSE: CDRE)

Business: Manufacture and sale of holsters, bullet-proof vests and bomb-disposal suits used by police officers and the military.

Share Information (@11/29/21):

Price	**19.99**
52-Week Range	14.16 – 22.00
Dividend Yield	1.6%
Market Cap	$652.9 million

Financials (2020):

Revenue	$438.5 million
Operating Profit Margin	10.6%
Net Profit Margin	8.2%

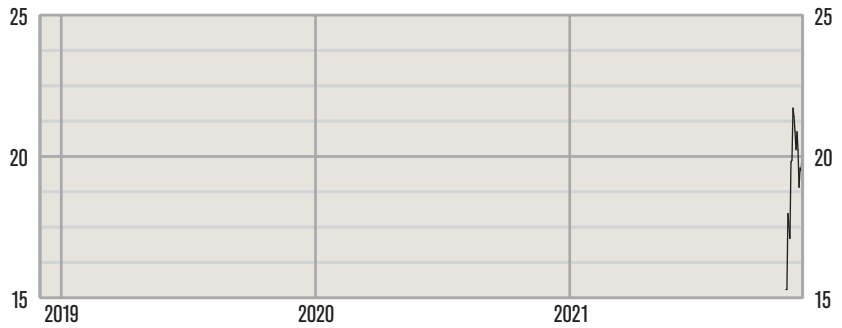
Valuation Metrics
(@11/29/21):

	CDRE	S&P 500
P/E (TTM)	18.2	28.8
Forward P/E (Est.)	n/a	22.4

Short Interest (as of 11/15/21):

Shares Short/Float	0.1%

CDRE PRICE HISTORY



THE BOTTOM LINE

At 10x EV/EBITDA on his 2024 estimates, the company's shares would trade at 50% above today's level, says Dan Roller. That leaves the upside optionality he sees from a superstar chairman and CEO redeploying capital into accretive M&A available for free.

Sources: Company reports, other publicly available information

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