EPOCH

Epoch Investment Partners, Inc.

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Finding Value in the Darkest of Times:

Evaluating Opportunities in the Small Cap Value Universe During COVID-19

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Overview

We believe the recent market dislocation caused by the COVID-19 crisis has created a historic opportunity to buy U.S. Small Cap Value stocks at attractive valuations. However, "value" is not what it seems when viewed through the oft used metric of "price to book value." Indeed, to be relevant in the capital marketplace going forward, "value" requires a redefinition utilizing finance terminology and not accounting measures.

We believe active management serves as the most effective way to capitalize on this opportunity due to the short comings of price to book, the sole definition of value according to the Russell Indices. At Epoch, rather than price to book, we focus on free cash flow-based valuation metrics (finance terminology, if you will), with free cash flow defined as the cash available for distribution to shareholders after all planned capital expenditures and all cash taxes.

This underlying principle is derived from the Nobel Prize winning paper by Modigliani and Miller that states the value of any business will be driven by its ability to generate cash flow independent of its capital structure and tax effects from the debt/equity structure of the business.* Management's challenge is to allocate that cash flow (free cash for us), wisely among the five possible uses available to management – cash dividends, share repurchases, debt reductions, internal capital projects, and/or acquisitions.

We also analyze fundamental business qualities through metrics that include the return on invested capital (ROIC) deployed in the business, and the incremental return on capital reinvested in the business through acquisitions or internal projects compared to the firm's incremental cost of capital. Rigorous fundamental research is undertaken on each potential investment to assess the sustainability of the business and determine the appropriate intrinsic value.

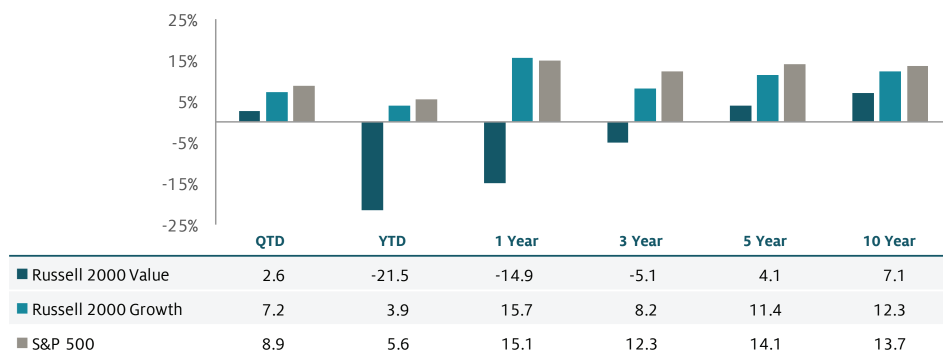
We believe our differentiated investment philosophy, paired with our disciplined and repeatable investment process, will outperform the Russell 2000 Small Cap indices over time with less risk.

The COVID-19 Crisis has created a historic opportunity to buy quality companies in the U.S. Small Cap Universe at very reasonable prices

The Russell 2000 Value index has been hit hard by the COVID-19 related stock market sell-off with the asset class down 21.5% YTD as of September 30, 2020**,** wiping out gains made over the past five years. At the same time, the Russell 2000 Growth and S&P 500 indices have both massively outperformed making it the

* *Modigliani, F.; Miller, M. (1958). "The Cost of Capital, Corporation Finance and the Theory of Investment." American Economic Review.*

Figure 1: R2000 Value vs. R2000 Growth vs. S&P 500



	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Russell 2000 Value	2.6	-21.5	-14.9	-5.1	4.1	7.1
Russell 2000 Growth	7.2	3.9	15.7	8.2	11.4	12.3
S&P 500	8.9	5.6	15.1	12.3	14.1	13.7

Source: Epoch Investment Partners; Frank Russell Company ("Russell"). Performance in USD as of September 30, 2020.

worst period of relative performance for Small Cap Value since the Great Depression. (See **Figure 1**)

The recent severe underperformance begs the question: Is this a historic opportunity to invest in Small Cap Value? We believe that it is. This is driven by our belief that there are businesses that will return to normal once we achieve widespread distribution of a vaccine, discover a cure, or reach herd immunity, which may happen as early as the middle of 2021. Our thesis is based on a longer-term view that the impact of the COVID-19 crisis is transitory and will not permanently damage the earnings power of many companies within the Small Cap Value universe. However, we do not believe that investors can capitalize on this opportunity through passive exposure to the Russell 2000 Value Index; an actively managed approach is required. In today's knowledge-based economy and digital age, price to book is not an appropriate evaluation method for many companies, especially in the health care, media, and technology sectors.

Rather than focusing on price to book for valuation, our approach to active management measures value utilizing our free cash flow forecasts, similar to how many private equity firms assess value. We pair our valuation work with fundamental company and industry analysis where we evaluate the various fundamental drivers of sustainable business quality. Some of the key factors include industry quality, competitive intensity, management quality, and capital allocation. We will go into more detail on our investment process a bit later.

Updating the concept of value for the digital age

The Russell 2000 indices utilize three components in deciding inclusion and member weights between their Value and Growth styles indices: Price/book (50% weight), trailing five-year sales per share growth (25% weight), and two-year consensus forward EPS growth (25% weight). The three metrics are then weighted and combined via a proprietary algorithm to produce a Composite Value Score (CVS). Russell then utilizes the CVS to determine whether a company should be included in the Growth Index, the Value index, or, believe it or not, in ***both*** indices. If a company's composite score tilts toward Growth or Value, but not enough to justify being solely in one index, it will be included in both indices with a greater weighting in one depending on its CVS. Also, notice that free cash flow is completely absent from Russell's index methodology. The ***only*** valuation metric used is price/book, which is a metric that has been losing relevance for decades for a variety of reasons including:

1. **Growth of Intangible Assets –** In an increasingly digital world, where the economy is transitioning from atoms to bits (http://www.eipny.com/white-papers/bits-meet-atoms/), accounting rules are not accurately capturing the value of a firm. Under GAAP (Generally Accepted Accounting Principles) Research & Development (R&D) expenses and Customer Acquisition Costs (CAC) are required to be expensed immediately and therefore are not reflected in book value. In R&D intensive industries like technology and health care, this causes earnings and subsequently book value to be understated relative to what Epoch would consider "economic reality." This is not a new trend. The business investment of companies has been shifting from tangible assets to intangible assets for over 40 years, however it has reached a tipping point over the last 10-15 years. This shift is a key driver undermining the efficacy of price to book as a reliable way to measure value. See **Figure 2** on the following page.

2. **Asymmetric Acquisition Accounting –** Under GAAP accounting, if the value of an acquired business declines, the company is required to take an impairment charge, thus reducing book value. However, if the value of the business subsequently increases, they are not allowed to write-up the value and increase book value.

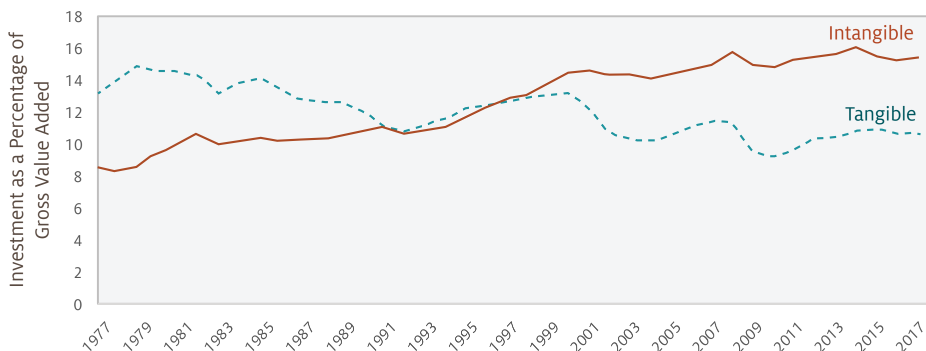
3. **Real Estate Depreciation –** Real Estate is often depreciated faster than its useful life, meaning its value is understated on the balance sheet and thus book value is understated.

4. **Share Repurchases –** Increasingly companies are purchasing their shares at a premium to stated book value, which has the effect of distorting book value downwards. Some companies have been buying back stock long enough that book value has turned negative.

The stock market also seems to be catching on to the declining utility of price/book as a valuation measure. Bloomberg tracks the performance of 16 different value metrics for the Russell 2000 index. As you can see in the table below, price/book is the second worst performing value metric over the last 15 years and it has actually subtracted value over the last 1, 7, and 15-year periods. (See **Figure 3**)

Interestingly, the metrics most closely aligned with Epoch's investing philosophy, which we will discuss further in this paper, free cash flow/enterprise value and free cash flow yield, are the two best performing metrics over the past 7 and 15 years.

Figure 2: The Rise of Intangible Investments in the U.S., 1977 - 2017



Source: Unpublished update to Corrado and Hulten (2010) using methods and sources developed in Corrado and Hao (2013) and in Corrado et al. (2016) and Corrado et al. (2017) for INTAN-Invest© and the SPINTAN project, respectively. The SPINTAN project was funded by the European Commision FP-7 grant agreement 612774.
Note: Investment as a percentage of gross value added for the business sector.

Figure 3: Tracking Bloomberg Value Factor Performance

RTY Index | Export | Settings | Factors to Watch

Quantile Spreads | Pure Factor Returns

Sector: All Sectors | View: Monitor | Wgt: Equal

	Style	Factor/Driver Name (16)	YTD Ret	1Y Ret	7Y Ret	15Y Ret ↓
	Value	<Filter>				
1)	Value	FCF/Enterprise Value	-29.90%	-34.51%	14.29%	154.72%
2)	Value	FCF Yield (FCF/P LTM)	-31.34%	-35.42%	3.29%	96.40%
3)	Value	Earnings Yield (E/P)	-31.78%	-39.72%	5.67%	72.61%
4)	Value	EBITDA/EV	-30.15%	-39.49%	-29.84%	50.29%
5)	Value	E/P (FY2)	-31.16%	-42.28%	-19.02%	49.51%
6)	Value	Fwd Earnings to Price	-37.73%	-46.27%	-7.64%	47.90%
7)	Value	Earnings/Price (BF1Y)	-34.77%	-45.53%	-17.00%	36.72%
8)	Value	Sales/Price	-12.94%	-22.74%	-38.77%	34.90%
9)	Value	Sales/Price (FY1)	-12.01%	-23.44%	-41.75%	33.06%
10)	Value	PORT US Value	-40.61%	-49.86%	-36.94%	29.14%
11)	Value	Sales/Price (BF1Y)	-12.40%	-23.53%	-42.80%	23.65%
12)	Value	Sales/Price (FY2)	-9.32%	-21.53%	-43.04%	17.63%
13)	Value	EBITDA/Price LTM	-37.94%	-45.52%	-44.18%	-6.57%
14)	Value	EBITDA/EV (BF1Y)	-26.53%	-36.59%	-60.23%	-21.34%
15)	Value	Book Value to Price	-34.16%	-35.13%	-38.10%	-33.84%
16)	Value	EBITDA/Price (BF1Y)	-24.48%	-35.53%	-69.72%	-58.33%

Source: Bloomberg
Note: Net long-short return of equal weighted stocks in Q1/Q5. Values are negative if bottom 20% (Q5) outperforms top 20% (Q1).

We believe focusing on quality and cash flow generation at a reasonable price will lead to better investment opportunities from the COVID-19 Crisis.

In keeping with a long line of investment theory, Epoch believes the fair value of any business is simply the present value of the future free cash flows. As value investors, our goal is to invest in a company that trades at a discount to that fair value.

In order to calculate the present value of a business, we need to estimate all the individual future cash flows produced by the business and discount them back to the present at an appropriate interest rate. However, if we make the simplifying assumption that the business' cost of equity capital and growth rate are constant, this present value can be calculated with a very concise equation as follows

$$V = CF_1/(r-g)$$

Where "V" is the value of the business, "CF_1" is the free cash flow that can be distributed to shareholders (through share repurchases, dividends, or debt reduction) in year 1, "r" is the firm's cost of capital, and "g" is the growth rate of future cash flows.

A higher level of free cash flow or CF_1 in the numerator leads to a higher value for the business and so does a higher level of growth or g in the denominator (since it makes the denominator smaller). But these two variables are not independent of each other, because, as we will demonstrate, growth requires a capital allocation decision by management that limits the amount of cash that can be distributed to shareholders.

There are only five things that management can do with a company's cash flow:

1. Invest in internal projects
2. Make an acquisition
3. Pay a cash dividend
4. Repurchase stock
5. Pay down debt

It is the ability of a company's management team to allocate cash flow properly amongst the five uses that determines whether the value of a business rises or falls. If management wants to grow, and can invest either internally or through an acquisition, and generate a ROIC that is greater than its marginal cost of capital, then making that investment increases the value of the business. However, if the prospective ROIC on a proposed investment is less than the marginal cost of capital, reinvesting would decrease the value of the business and management should return the cash flow out to owners so they can invest it elsewhere and earn a higher return. For this reason, the quality of a company's management team with regards to how they allocate capital, is a critical element of Epoch's fundamental research process.

Another core tenet of Epoch's investing philosophy is that accrual-based accounting measures, such as earnings and book value, often provide misleading information to properly calculate a company's intrinsic value. The following example shows how earnings do not tell the full story. In **Figure 4** above, Company A and Company B have the same revenue and earnings growth at 5%, and the same cost of equity capital at 10%. Given only this information, how would you value the businesses?

This is, however, a trick question, because we do not have enough information to answer. We also need to know how much capital is required for these companies to generate the 5% revenue and earnings growth, which is determined by their ROIC. Now look at **Figure 5** below, where companies A and B are both growing 5%, but the ROIC of A is 20% and the ROIC of B is 10%.

With this additional information we can now calculate that Company A is worth $1,500 and Company B is worth $1,000. Furthermore, the justified PE ratio for Company A is 15x while for Company B it is 10x or a 50% premium. But why are the values of the business and justified PE ratios different? The answer lies in the fact that Company A must only reinvest 25% of its earnings to grow 5%, while Company B must reinvest 50% of its earnings to grow 5%,

Figure 4: How Earnings Do Not Tell the Full Story

Company A	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue	$1,000	$1,050	$1,102.50	$1,157.6	$1,215.5
% Growth		5%	5%	5%	5%
Earnings	$100.00	$105.00	$110.30	$115.90	$121.60
% Growth		5%	5%	5%	5%

Company B	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue	$1,000	$1,050	$1,102.50	$1,157.6	$1,215.5
% Growth		5%	5%	5%	5%
Earnings	$100.00	$105.00	$110.30	$115.90	$121.60
% Growth		5%	5%	5%	5%

Source: Epoch Investment Partners

Figure 5

But company B is twice as capital intensive, therefore must reinvest 50% of earnings to maintain a 5% growth rate

Company A
- Valuation of $1,500
- P/E: 15x
- ROIC: 20%
  - Incremental investment of $25 returns incremental earnings of $5 (5/25=20%)

Company A					
Revenue	$1,000.00	$1,050.00	$1,102.50	$1,157.60	$1,215.50
% Growth		5%	5%	5%	5%
Earnings	$100.00	$105.00	$110.30	$115.90	$121.00
% Growth		5%	5%	5%	5%
Investment	$(25.00)	$(26.30)	$(27.60)	$(28.90)	$(30.40)
% Growth		5%	5%	5%	5%
Free Cash Flow	$75.00	$78.80	$82.70	$86.80	$91.20
% Growth		5%	5%	5%	5%

Company B
- Valuation of $1,000
- P/E: 10x
- ROIC: 10%
  - Incremental investment of $50 returns the same incremental earnings of $5 (5/50=10%)

Company B					
Revenue	$1,000.00	$1,050.00	$1,102.50	$1,157.60	$1,215.50
% Growth		5%	5%	5%	5%
Earnings	$100.00	$105.00	$110.30	$115.90	$121.00
% Growth		5%	5%	5%	5%
Investment	$(50.00)	$(52.50)	$(55.10)	$(57.90)	$(60.80)
% Growth		5%	5%	5%	5%
Free Cash Flow	$50.00	$52.50	$55.10	$57.90	$60.80
% Growth		5%	5%	5%	5%

Source: Epoch Investment Partners

therefore Company A generates greater free cash flow due to the higher ROIC.

Our redefined concept of Value for the digital age has outperformed in the past and we believe will generate future outperformance in today's historic opportunity.

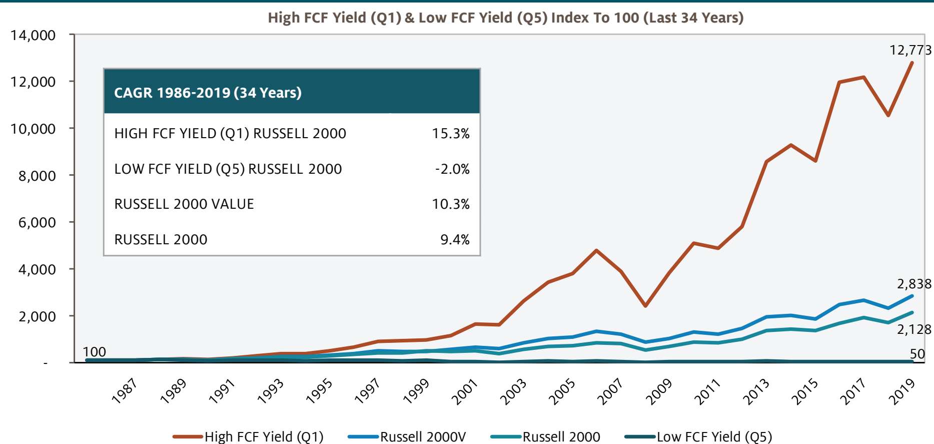
Historically, free cash flow yield (the inverse of price to FCF) and quality as measured by ROE have outperformed the passive benchmarks. We went back to inception of the Russell 2000 and Russell 2000 Value indices and divided the companies into quintiles by FCF yield and ROE, with quarterly rebalancing. A portfolio of the highest quintile FCF stocks would have generated an annualized return of 15.3%, beating both benchmarks by a substantial margin, and the lowest quintile which had an annualized return of -2.3%. In addition, a portfolio of the highest quintile ROE stocks would have generated an annualized return of 11.5%, beating both benchmarks by a substantial margin, and the lowest quintile which had an annualized return of -0.9%. (**See Figures 6 and 7**)

There is one final, but important, point we should make about ROE and ROIC, which we think about similarly and often use interchangeably. Traditional microeconomic theory holds that a company earning a high return on capital will attract competition causing their returns to revert to the mean. Instead, we find that the ROIC for individual companies is very persistent.

Epoch performed a study, where we took the entire Russell 2000 and broke it out into quintiles based on ROIC, with Quintile 1 being the highest and Quintile 5 being the lowest. Historically, a company that placed in Quintile 1 had a 73% probability of placing in Quintile 1 or Quintile 2 the following year and only an 8% probability of falling into Quintile 4 or Quintile 5. In addition, a company that scored Quintile 5 only had a 5% probability of improving to Quintile 1 or Quintile 2 while it had a 61% probability of placing in Quintile 4 or Quintile 5. (**See Figure 8** on the next page.)

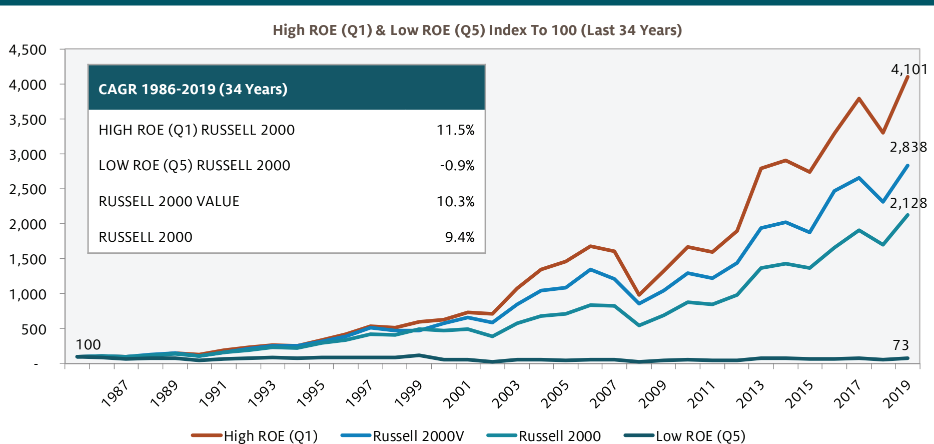
So, the key conclusion from this research is as follows: if you want to find a company that will earn a high ROIC in the future, the best place to look are companies that earned a high ROIC in the past year. Put another way ***great companies tend to remain great and bad companies tend to remain bad***. But why is that? We believe it is related to the underlying dynamics driving ROIC. Many of these underlying dynamics

Figure 6: Russell 2000: High (Q1) vs. Low (Q5) FCF Yield Companies



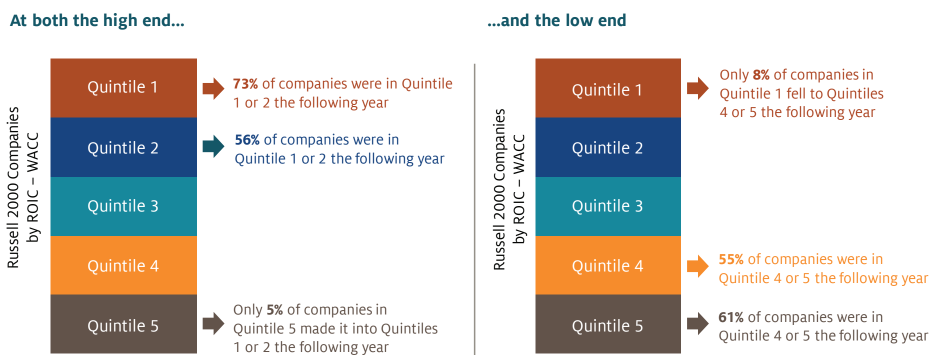
Note: Quarterly Rebalancing; Equal Weighted. As of December 31, 2019. The performance presented is simulated based on an index and no representation is being made that any investment will achieve performance similar to those shown. For illustrative purposes only and not representative of a portfolio that Epoch currently manages. Source: Russell, Jeffries, Epoch Investment Partners

Figure 7: Russell 2000: High (Q1) vs. Low (Q5) ROE Companies



As of December 31, 2019. The performance presented is simulated based on an index and no representation is being made that any investment will achieve performance similar to those shown. For illustrative purposes only and not representative of a portfolio that Epoch currently manages. Source: Russell, Jeffries, Epoch Investment Partners

Figure 8: Persistence of ROIC is the Key



Source: Bloomberg
Note: Data spans the period from January 2000 to December 2018. Quintile portfolios are formed monthly and use monthly returns excluding financials and real estate (as defined by MSCI GICS).

actually change very slowly over time. In fact, when we discover a company with a high ROIC, we challenge our research analysts to perform a deep analysis to understand the nature of the underlying fundamental factors driving the high ROIC and determine whether it is likely to persist. After all, equities are forward-looking securities and careful analysis must be conducted regarding the future prospects of the business and the sustainability of the attractive metrics we observe today. For this reason, and as a critical component to our disciplined investment process, we focus our attention on these 4 key areas, or fundamental factors, when conducting our research.

1. **Industry quality** – The industry's rate of change and risk of obsolescence/disruption. Normalized industry growth rates broken down by both price and volume. Level of cyclicality and sensitivity to various macro drivers. Political and regulatory risks and drivers.

2. **Competitive position** – Porter's Five Forces (competitive rivalry, supplier and customer bargaining power, substitution/switching costs, and barriers to entry). We consider scale, intellectual property and trade secrets, know-how, relationships, demonstrated pricing power, gross margin levels and trends, market share trends, and level of industry consolidation or fragmentation. The value proposition offered by the product or service. The Level of importance of the product or service to the overall operations of the customer (e.g. part of a system with a high cost of failure/downtime)

3. **Governance (management and board quality)** – Track record of strategy. Continuity of decisions. Compensation metrics tied to creating shareholder value. A board with relevant expertise, diversity, and free from conflicts of interest. Overall corporate culture.

4. **Capital allocation, balance Sheet, and liquidity** – Track record of deploying capital at returns above the marginal cost of capital; or returns capital to shareholders if not able to achieve such returns. Balance sheet, capital structure, and leverage appropriate for the level of the business' cyclicality. Ample liquidity maintained in order to sustain economic shocks.

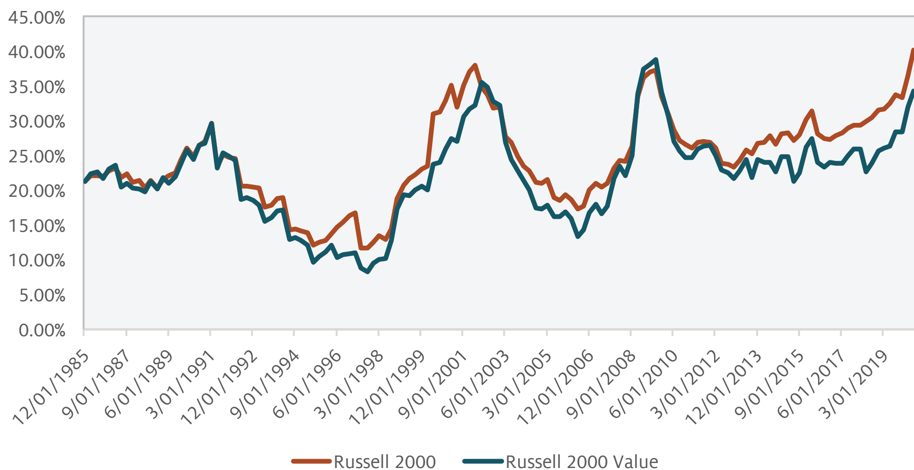
Epoch's Small Cap Value portfolio is focused on our updated Value metrics.

While we believe value should be defined by the price paid for free cash flow and the quality of the business, traditional value indices and style boxes are defined by price/book. As a result, while we focus on value, our portfolio will always look quite a bit different than traditional value benchmarks. This difference has worked to our advantage from a performance perspective during this unprecedented market environment and since the inception of our U.S. Small Cap Value strategy.

For this discussion, it is also important to acknowledge how the makeup of the Russell 2000 U.S. Small Cap index has changed dramatically over the past 20 years. The two key recurring trends are (1) the benchmark keeps getting smaller in terms of market cap, and (2) the quality of the benchmark keeps going lower, as defined by the percentage of loss-making companies and ROE. As you can see in **Figure 9** and **10** on the following page, approximately **35-40%** of the companies in the Russell 2000 indices are losing money on a GAAP basis, which is approaching internet bubble levels! In addition, the median ROE of a company in the Russell 2000 has declined from approximately 10% to 6% over the last 25 years!

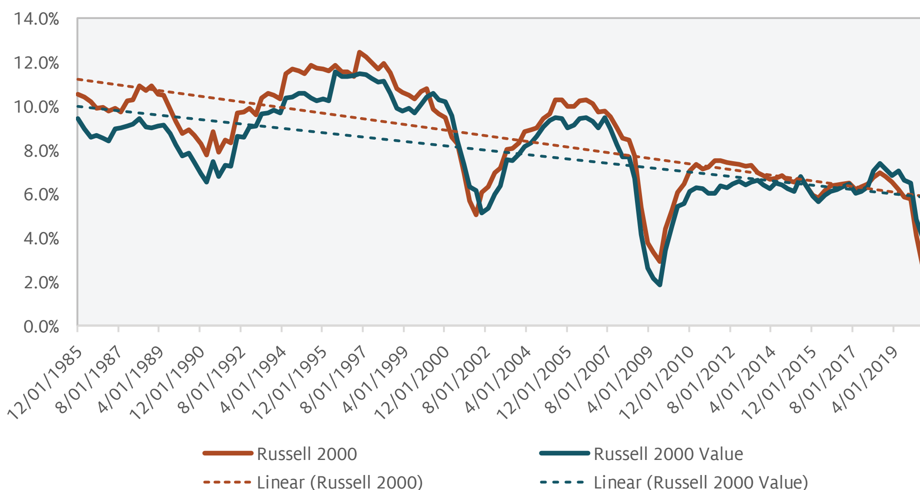
These trends are being driven by an interesting phenomenon. Since the late 1990s, the number of public companies has declined from approximately 7,000 to 3,500 as M&A and bankruptcies have outnumbered IPOs 2:1. In order to keep 2000 companies in the benchmark, the Russell 2000 has gravitated towards micro-cap companies that are lower quality. **While the above points are problematic to the passive investor, *they create opportunities for active investors to generate excess returns.***

Figure 9: % of Loss-Making Companies in the Russell 2000



Source: Bloomberg, Epoch Investment Partners

Figure 10: Median ROE



Source: Bloomberg, Epoch Investment Partners

So now that we have discussed how Epoch thinks about value vs. the benchmarks and how they have changed over time, let us look at how our Small Cap portfolio stacks up versus the indices on the key metrics we have been discussing. As an aside, one of the little-known facts about the Russell indices is that they exclude loss making companies from the calculation of the PE ratio. If you went back and added the loss making companies, their PE ratios would look dramatically higher.

On the next page, you can see in **Figure 11**, Epoch's portfolio has tremendous advantages over the benchmark on the metrics central to our investing philosophy: P/FCF, ROE, and percentage weighting of the portfolio vs. the index in loss making companies. In fact, one of our goals is to make these advantages as wide as possible without taking any unintended individual security risks, sector bets, or macro bets. Also consistent with our discussion, the one area Epoch's portfolio doesn't have an advantage is price/book which we believe has lost its relevance for most sectors outside of financials.

We believe this portfolio positioning and investment approach will position us well to outperform the Russell 2000 Smal Cap indices on a risk-adjusted basis as the market recovers from the impact of the COVID-19 Crisis.

Conclusion

We believe there is a historic investment opportunity in the Small Cap Value space today. However, it is also an unprecedented period due to the following:

1. The COVID-19 crisis and the unprecedented shutdowns causing significant declines in economic activity, interest rates, and energy prices
2. The significant outperformance of Large Cap and Growth stocks relative to Small Cap Value stocks
3. The changing composition of the Russell 2000 indices which has led to more micro-caps, and a greater % of the benchmark invested in loss making or low-quality companies as measured by ROE
4. The reliance of the Russell 2000 indices on book value as the primary valuation tool, a measure that is losing its significance due the changes in the U.S. Economy and GAAP accounting. Free cash flow, the cornerstone of Epoch's investment philosophy, has been the best performing valuation tool over the past 15 years and it's notably absent from how Russell constructs the indices.

These dynamics create an incredible opportunity for active managers who perform rigorous fundamental research

to identify undervalued companies that will survive the tough economic times and properly allocate free cash flow for the benefit of shareholders. Our U.S. Small Cap Value team has done exactly that. We employ a disciplined and repeatable investment process anchored around our differentiated investment philosophy focused on free cash flow. Our portfolio demonstrates tremendous advantages over the indices on key valuation and business quality metrics that we believe provide the opportunity for significant alpha generation for years to come.

Figure 11: Focus on free cash flow & ROIC drives favorable characteristics

	Valuation			Profitability			Leverage
	Price/ Earnings (Pos. Only)[1]	Price to FCF (LTM)	Price to Book	% of Loss Making Stocks	Return On Equity	Operating Margin	Net Debt/ EBITDA[2]
Epoch U.S. Small Cap	19.4x	10.3x	6.5x	5.0%	16.7%	18.8%	4.0x
Russell 2000 Value	19.5x	17.0x	5.2x	18.4%	5.9%	13.9%	4.2x
Russell 2000	29.4x	30.7x	7.6x	30.3%	1.3%	9.0%	3.7x

Note 1: P/E's were calculated by dividing total market cap by the sum of underlying share earnings for company in the portfolio or benchmark
Note 2: Calculations for non-financials only

Source: Epoch Investment Partners, FactSet; as of September 30, 2020
Figures for Epoch U.S. Small Cap are based upon a representative account as of September 30, 2020

Figures calculated ex-cash. Loss making defined as companies with negative net income available to common fully diluted after extraordinary items most current LTM or LTM ending December 31, 2019.

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