A Decade of Destabilizing Stability

US and global equity markets soared in 2019, ending the decade of the '10s with a roar. Returns for our EQR equity strategy and the S&P 500 are shown below for 2019 and our full history. ACR strategy composite and fund returns can be found at <u>www.acr-invest.com/strategies</u>.

ACR EQR and S&P 500 Total Return Net of 1% Fee						
Annualized Cumulative Since Inception Since Inception						
	2019	2000*-2019	2000*-2019			
ACR EQR (Net of 1% Fee)	13.9%	10.4%	610%			
S&P 500 Total Return	31.5%	6.0%	217%			

 Table 1. All figures are total returns (TR) which includes unrealized gains, realized gains, dividends, interest, and the re-investment of all income. EQR Net 1% Fee is the EQR Advised / SMA Composite actual total return net of a 1% management fee. *Year 2000 begins at EQR inception date of April 3, 2000. See EQR's full composite presentation at https://www.acr-invest.com/strategies/eqr-advised-sma-composite/94. Sources: S&P Dow Jones Indices; ACR Alpine Capital Research. *Past performance is not indicative of future results*.

The ACR investment team continuously prunes our portfolios of speculatively priced securities, one of the reasons we expect to lag the market during exuberant times but outperform when measured across longer horizons. The table below shows real returns by decade and illustrates how pruning helps generate real spendable dollars. The current earnings yield column points to what the next decade may hold in store given our estimates of cyclically adjusted earnings.

ACR EQR and S&P 500 Total Annualized Real Return (after subtracting inflation) Gross of Fees							
Since Inception'00s – 1st Decade'10s – 2nd Decade'20s – 3rd Decade?Real Total ReturnReal Total ReturnReal Total ReturnReal Total ReturnCurrent2000* – 20192000* – 20092010 – 2019Earnings Yield**							
ACR EQR ('Pure Gross')	9.3%	9.4%	9.1%	9.1%			
S&P 500 Total Return	3.8%	-3.5%	11.6%	2.9%			

Table 2. All figures are total returns (TR) which includes unrealized gains, realized gains, dividends, interest, and the re-investment of all income. Figures are inflation adjusted by reducing nominal returns by the BLS's CPI-U. EQR 'Pure Gross' returns are gross of all fees including brokerage commissions and are supplemental information. *Year 2000 begins at EQR inception date of April 3, 2000. See EQR's full composite presentation at <u>https://www.acr-invest.com/strategies/eqr-advised-sma-composite/94</u>. **Current Earnings Yield is fully explained in Appendix A. Sources: S&P Dow Jones Indices; BLS-CPI Data; ACR Alpine Capital Research. *Past performance is not indicative of future results.*

We believe that the earnings yield in the last column implies that the '20s will not roar. Rather, they will be more like the '00s than the '10s for EQR and the market. The earnings yield is an excellent stock return forecasting tool. The reason is that a properly calculated earnings yield – free of major accounting abnormalities and adjusted for the economic cycle – is technically equivalent to a stock return not including inflation (which is the reason we calculate stock returns after subtracting inflation;

further technical details can be found in Appendix A). The following table shows the correlation between implied stock returns and actual stock returns using cyclically adjusted earnings yields and P/Es.

S&P 500 Cyc	clically Adjuste	ed Ear	rnings Yield	and Real	Total Re	turn (after Subtra	cting Inflation)
	Earnings		Beginning	Ending	P/E		Implied	Annualized
	Yield	+	P/E	P/E	Return	=	Return	Actual Return
1970-79	5.3%	_	18.9	8.9	-7.2%	_	-1.9%	-1.4%
1980-89	11.2%		8.9	14.2	4.8%		16.0%	11.9%
1990-99	7.0%		14.2	35.5	9.6%		16.6%	14.8%
2000-10	2.8%		35.5	17.5	-6.8%		-4.0%	-3.5%
2010-19	5.7%		17.5	34.6	7.0%		12.7%	11.6%
2020-29	2.9%		34.6	?	?		?	?

Table 3. All figures are inflation adjusted using the BLS's CPI-U. The ACR S&P 500 Cyclically Adjusted Earnings Per Share Earnings Yield (EY) calculation is described in the Appendix A. The EY is as of the start of the ten-year period. The Beginning and Ending P/E ratios use the ACR S&P 500 Cyclically Adjusted P/E ("CAPE") defined in Appendix A. The P/E return is the ten-year annualized change in PE ratios; it is calculated as: (Ending PE / Beginning PE) $^{(1/10)} - 1$. The Annualized Implied Return sums the Beginning EY and the P/E Return. The Annualized Actual Return represents the historical gross real S&P 500 Total Return (TR) including dividends and capital gains for the periods described adjusted by reducing nominal returns by the BLS's CPI-U. The 2020 Beginning EY for the S&P 500 is based on EPS data as of 9/30/2019 and Price data as of 12/31/2019. Sources: S&P Dow Jones Indices; Robert Shiller; BLS-CPI Data; ACR Alpine Capital Research. *Past performance is not indicative of future results.*

Considering that the current P/E is near an all-time high, the elephant in the room is the potential change in P/E. Oddly, the elephant is invisible to most. Rather than seeing this enormous risk, they blindly assume the status quo. The current cyclically adjusted P/E is 34.6 – alarmingly near the 1999 high of 35.5. What are the chances it rises significantly higher? The historical average is 14.3. We have repeatedly cautioned that there is no economic law stating the current P/E must converge to its historical average. However, an intelligent investor will forecast future returns with this potential risk in mind. The following table provides a series of forecasted returns based on the risk of declining future P/Es.

S&P 500 Estimated Returns 2020-29					
Earnings Yield After Inflation	+	Change in P/E	=	Annualized Forecast Return	
2.9%		34.6 to 34.6 = 0.0%		2.9% plus inflation	
2.9%		34.6 to 30.0 = -1.4%		1.5% plus inflation	
2.9%		34.6 to 25.0 = -3.2%		-0.3% plus inflation	
2.9%		34.6 to 20.0 = -5.3%		-2.4% plus inflation	
2.9%		34.6 to 14.1 = -8.6%		-5.7% plus inflation	
2.9%		34.6 to 10.0 = -11.7%	, D	-8.8% plus inflation	

Table 4. The S&P 500 Earnings Yield (EY) is the ACR S&P 500 Cyclically Adjusted Earnings Per Share defined in the Appendix A below. The EY is the most current figure based on EPS data as of 9/30/2019 and Price data as of 12/31/2019. The EY is inflation adjusted using the BLS's CPI-U. The Change in P/E demonstrates the hypothetical annualized return for a move in PE ratios over the next ten years; it is calculated as: (*Ending PE / Beginning PE*) ^ (1 / 10) - 1. The Annualized Forecast Return sums EY and the P/E Return. Sources: S&P Dow Jones Indices; Robert Shiller; BLS-CPI Data; ACR Alpine Capital Research. *Past performance is not indicative of future results.*

The ACR investment team seeks to protect our clients' capital from the risk of high prices by structuring portfolios which are very different from the market. The current EQR estimated normalized earnings yield is 9.1% (P/E of 10.9). We sleep well at night with a sufficiently high estimated earnings yield and do not have concerns about long-term EQR strategy P/E multiple contraction. Additionally, we have plentiful cash reserves should markets turn less sanguine and bargains become more abundant.

The end of the decade is a good time to reflect. In the remainder of this commentary, we will assess the economics of the past decade, discuss "destabilizing stability" and its potential ramifications, and summarize our strategy and positioning.

The past decade was peculiar in that it did not include a bear market or recession but comprised an expansion which was both historically long and weak. The following table compares economic growth (GDP per capita adjusted for inflation) in each expansion over the past 50 years.

US GDP Per Capita - Historical Economic Expansions							
	GDP Per Capita						
		GDP Per Capita	Previous Peak		Previous Peak		
		Trough to Peak	to Peak	Trough to	to Peak		
Trough	Peak	Annualized	Annualized	Peak (Years)	(Years)		
1960 Q4	1969 Q3	3.7%	3.1%	8.75	9.50		
1970 Q4	1973 Q2	4.8%	2.6%	2.50	3.75		
1975 Q1	1979 Q3	3.5%	1.8%	4.50	6.25		
1980 Q3	1981 Q1	6.9%	0.3%	0.50	1.50		
1982 Q4	1990 Q2	3.4%	2.4%	7.50	9.25		
1991 Q1	2000 Q4	2.5%	2.1%	9.75	10.50		
2001 Q3	2007 Q4	1.9%	1.5%	6.25	7.00		
2009 Q2	2019 Q3*	1.6%	0. 9 %	10.25	11.75		

 Table 5.
 Peak and Trough dates were modified by ACR from the original NBER nominal peak and troughs dates to be correct for

 inflation adjusted data using BLS CPI-U.
 Sources: NBER; BEA (A939RX) retrieved from FRED; BLS-CPI Data; ACR Alpine Capital Research.

Despite weak GDP per capita growth, corporate earnings growth in the current expansion was very close to its historical average since 1926. In other words, earnings rose at a faster rate than GDP.

S&P 500 Real Earnings Per Share Growth (Inflation Adjusted)				
Current	Historical			
2007*-2019	1926-2019			
1.9%	2.1%			

Table 6. EPS Growth has been adjusted for inflation using the BLS's CPI-U. The Current period Inflation Adjusted S&P 500 Earnings PerShare growth is calculated using simple compound annual growth rate (CAGR) from *June 30, 2007 EPS peak to December 31, 2019.The long-term Historical period uses Ordinary Least Squares (OLS) trendline of Inflation Adjusted S&P 500 Earnings Per Share fromDecember 31, 1925 to December 31, 2019. Sources: S&P Dow Jones Indices; Robert Shiller; BLS-CPI Data; ACR Alpine Capital Research.

Corporate earnings cannot rise faster than GDP forever. If they did, wages would eventually decline to zero. The question is whether GDP per capita growth will rise to its historical average or corporate earnings growth will slow. While the macroeconomic dynamics are complex, investors ought to be fine under slowing earnings growth, *if* firms allocate capital efficiently by returning more of their profit to investors via interest, dividends, and share retirements. ACR seeks management teams who understand the importance of capital allocation and return profits to shareholders when they do not have better uses for it.

The most notable economic dynamic of both this expansion and over the past 40 years is how prices have risen faster than income. We will examine this phenomenon first in the stock market. The following chart shows the change in earnings, prices, and price/earnings from the peak of the previous expansion in earnings through 2019.



Chart 1. S&P 500 Earnings per Share (EPS) and Price per Share (PPS) growth adjusted for inflation using the BLS's CPI-U. Data from June 30, 2007 to December 31, 2019. P/E formula = (1+PPS%) / (1+EPS%) -1. Sources: S&P Dow Jones Indices; Robert Shiller; BLS-CPI Data; ACR Alpine Capital Research.

Remarkably, stock prices were not cheap in June of 2007 during the peak of the US housing bubble, yet they expanded another 35.6% above earnings through 2019.

Stock prices were closer to their historical average P/E at the peak of the earnings expansion prior to the 1990 recession. The following chart shows the full expansion of prices relative to earnings from these more normalized levels.



Chart 2. S&P 500 Earnings per Share (EPS) and Price per Share (PPS) growth adjusted for inflation using the BLS's CPI-U. Data from March 31, 1989 to December 31, 2019. P/E formula = (1+PPS%) / (1+EPS%) -1. Sources: S&P Dow Jones Indices; Robert Shiller; BLS-CPI Data; ACR Alpine Capital Research.

The long-term increase in prices above income is not unique to the US stock market. This dynamic has played out in many markets across the globe. The Jerome Levy Forecasting Center published an excellent piece entitled *Bubble or Nothing* (www.levyforecast.com/bubble-or-nothing) which expands on this theme. The Jerome Levy Forecasting Center and ACR have no affiliation, although we share Academic Advisor in macroeconomics Professor Steve Fazzari and a deep interest in the theories of macroeconomist Hyman Minsky.

Minsky is credited with coining the phrase "stability is destabilizing". His financial instability hypothesis defines the basic dynamics as follows:

The first theorem of the financial instability hypothesis is that the economy has financing regimes under which it is stable, and financing regimes in which it is unstable. The second theorem of the financial instability hypothesis is that over periods of prolonged prosperity, the economy transits from financial relations that make for a stable system to financial relations that make for an unstable system¹.

Minsky puts a lot more meat on these ideas in various academic papers. Most importantly to note here, there are innumerable permutations on the theme of how economies become unstable. The US housing bubble, for example, resulted in an explosive increase in both unsustainably financed housing activity and rising housing prices. The destabilizing stability of the past decade seems to be mostly a function of asset prices. The problem is that real economic activity has not risen commensurately with asset prices.

¹ Hyman P. Minsky, "The Financial Instability Hypothesis", Working Paper No. 74 The Jerome Levy Economics Institute of Bard College.

One must think broadly about liabilities in the Minsky model to fully appreciate the present situation. Investors assume a certain return on their assets for the purpose of funding a liability: future spending. Pension plans are the best example. Pension liabilities are specific legal claims by pensioners on plan assets. Individual investors have a similar post retirement liability, even if it is not calculated with the precision of a defined benefit pension plan. They save today (assets) to spend tomorrow (liabilities) in retirement. Endowments have unending liabilities as they expect to spend in perpetuity.

The problem is that most investors have far higher return expectations than is warranted given the level of asset prices in relation to underlying income. Studies show expected returns of approximately 7-10% nominal for portfolios including equity and debt assets across investor types (see Appendix B). Today's low-single digit bond and equity market yields and investor return expectations are clearly mismatched. Future asset values will be insufficient to satisfy anticipated liabilities, and many investors are oblivious to the shortfall. The extent to which investment returns fail to satisfy these liabilities could have two negative economic consequences: reduced spending and asset sales. The former puts downward pressure on demand and the latter on asset prices.

Despite these headwinds, the ACR investment team remains largely optimistic about the long, long-term health of the global economy. By "long, long-term", we mean a period canvassing over 50 years. Our optimism rests on two observations. First, the economy has steadily grown in the long-term despite economic imbalances which have been a regular fixture of free enterprise systems since their earliest days (see Appendix C). Second, the primary driver of economic success, a well-functioning free enterprise system, remains firmly in place. While optimistic, we remain keenly aware of the imbalances which inevitably develop in free enterprise systems. We endeavor to protect capital from high prices and unsustainable profits and attempt to profit from these dynamics.

Indeed, today is a time to profit as well as to protect. Current market imbalances have created opportunities in a narrow group of companies which are attractively priced. Unlike the general stock market, the prices of these companies have not performed well, while their underlying cash flows continue to create and compound value. As demonstrated by the current estimated EQR earnings yield and the price/value metrics shared in recent commentaries, we believe our strategies are poised to generate sound future profits for investors.

The ACR investment team tracks each portfolio holding closely to assure that our investment performance is supported by continued intrinsic value growth. Intrinsic value is the cash generated by a business over its business life. In present terms, it is an estimate. Over time, intrinsic value reveals itself in the form of cash generated by a business. The following table shows the annual total return and estimated change in intrinsic value for the EQR strategy since we began keeping time stamped records for this data on March 31, 2003.

ACR EQR Change in Intrinsic Value						
	ACR EQR					
	Pure Gross	Price/	Value			
	Total Return	Value	Change			
2003	28.5%	0.95	3.9%			
2004	9.3%	0.90	16.2%			
2005	-0.2%	0.83	4.1%			
2006	17.9%	0.99	-1.4%			
2007	4.3%	0.88	14.7%			
2008	-13.9%	0.64	12.8%			
2009	29.1%	0.89	-10.4%			
2010	20.0%	0.86	26.7%			
2011	5.1%	0.77	14.9%			
2012	12.3%	0.79	9.3%			
2013	25.0%	0.92	14.5%			
2014	12.7%	0.93	16.2%			
2015	0.9%	0.87	5.0%			
2016	9.6%	0.88	9.4%			
2017	16.6%	0.91	19.4%			
2018	-3.3%	0.72	13.1%			
2019	15.1%	0.84	1.1%			
Inception	10.7%		9.8%			
Standard Dev	11.2%		8.6%			

Table 7. ACR EQR 'Pure Gross' Total Returns are gross of all fees including brokerage commissions and are supplemental information. Total Return performance includes unrealized gains, realized gains, dividends, interest, and the re-investment of all income. See EQR's full composite presentation at https://www.acr-invest.com/strategies/eqr-advised-sma-composite/94. Price/Value is the ratio of EQR's full composite presentation at https://www.acr-invest.com/strategies/eqr-advised-sma-composite/94. Price/Value is the ratio of EQR strategy prices to ACR's estimate of EQR strategy intrinsic values. Intrinsic Value is ACR's estimate of what a company is worth based upon our estimate of its future cash flows and their riskiness. The Intrinsic Value Change is the change in the intrinsic value of the stock portfolio for the period. Intrinsic Value represents the portfolio manager's subjective estimate of business value. ACR began recording this data starting March 31, 2003, and this dataset is presented in its entirety. Source: ACR Alpine Capital Research. *Past performance is not indicative of future results.*

The EQR composite total return last year was above our long-term return expectations, while the intrinsic value of our strategy holdings increased slightly after two strong years of intrinsic value increases. Intrinsic value in this table represents the investment team's estimates of the future cash flows of the companies we hold. In the long-term, realized changes in intrinsic value "true up" with prices and are reflected in EQR strategy investment performance.

Note that the ACR EQR Total Return includes dividends and cash, whereas the Intrinsic Value Change only captures the change in intrinsic value for the period, exclusive of dividends and cash. Yearly increases (decreases) in intrinsic value encompass the following elements: increases (decreases) in retained free cash flows, decreases (increases) in shares outstanding, increases (decreases) in lower price/value holdings, decreases (increases) in estimated risks, and increases (decreases) in estimated growth rates.

The accumulation of cash earnings drives long-term corporate success; properly pricing those cash earnings drives long-term investment success. Since 2012 ACR has sold 23 and purchased 18 companies in our EQR strategy – a deficit of five companies. Our pruning of speculatively priced holdings has resulted in a significant cash balance from 2014 forward. The below chart shows our cash balance since inception and average cash balance by decade.



Chart 3. Monthly average of cash allocation across all EQR accounts. *Inception 3/31/00. Source: ACR Alpine Capital Research.

ACR will always measure investment performance by comparing strategy returns *including cash* to market returns, so our cash balance does not really matter in the end. All that matters are bottom-line account investment returns. Yet investors should rightly want to know "how the sausage is made", and our historical cash allocation chart helps in this regard.

The past decade of economic stability and expansion was marked by a commensurate level of growing instability in the form of historically high prices. With these dynamics in mind, the ACR investment team believes that the coming decade will present opportunities to reduce our average cash balance to far lower levels. While we cannot forecast with any precision how the future decade will unfold, we remain confident about the implications of today's prices for ACR's strategies in comparison with the market.

The ACR investment team thanks you for your continued confidence and looks forward to another profitable decade together, despite prevailing market conditions.

Nick Tompras January 2020

As of November 4, 2022, we have provided this supplement to accompany the commentary and satisfy changing regulations: https://acr-invest.com/commentary-supplement/

Appendix

Appendix A

The earnings yield ("EY") is the inverse of the price-to-earnings ratio (i.e. earnings/price). The EY represents estimated earnings that could be paid out in dividends as a percentage of current price assuming depreciation is equivalent to the level of capital expenditures required to maintain current unit production. Yields (income/price) are the most fundamental metric to compare investments and to help forecast future returns (e.g. earnings yield for equities, yield-to-maturity for bonds).

ACR's cyclically adjusted earnings per share ("EPS") for the S&P 500 is based on the ordinary least squares (OLS) trendline of inflation adjusted S&P 500 EPS from 1926-Present. The chart below shows the importance of adjusting current earnings to account for the long-term trend. Current earnings have varied widely from their long-term trend. Proper forecasting and corporate earnings analysis require coupling trend earnings, rather than current earnings, with long-term trend growth rates.



Chart 4. Sources: S&P Statistical Service; S&P Index Services; Robert Shiller's CAPE Ratio data; ACR Alpine Capital Research

The ACR Cyclically Adjusted P/E ("CAPE") for the S&P 500 is calculated as the inflation adjusted S&P 500 price per share ("PPS") divided by the S&P 500 cyclically adjusted EPS. The EQR estimated earnings yield is the weighted average estimated normalized cash earnings yield for investment holdings in ACR's EQR strategy. EQR normalized cash earnings are estimates of the ACR investment team and could vary widely from actual cash earnings.

Cyclically adjusted EY's and P/Es work well as a stock return forecasting tool for portfolios with moderate returns on capital and growth prospects. EY's can understate expected stock returns for

companies and portfolios with significant growth opportunities, high returns on capital, and therefore high growth rates.

Appendix B

The following studies represent investor return expectations for pension plans, individual investors, and endowments. Pension plans - <u>https://www.nasra.org/latestreturnassumptions</u>; individual investors - <u>https://www.schroders.com/en/insights/global-investor-study/investors-forecast-returns-of-10.7--millennials-expect-more/; endowments - <u>https://www.nacubo.org/Press-Releases/2019/US-Educational-Endowments-Report-8-2-Percent-Return-in-FY18</u>.</u>

Appendix C

Real GDP per capita measures the value of goods and services produced per person yearly adjusted for inflation. Real GDP per capita growth is a measure of increasing prosperity. Corporate earnings and GDP are inextricably linked – earnings are a GDP component and interact with other GDP components. Earnings are more volatile than GDP due to their inherent operating leverage. The following three charts show the historical stability of GDP per capita in the long-term.



Chart 5. Sources: The Conference Board Total Economy Database™, Angus Maddison, International Monetary Fund, ACR Alpine Capital Research



Chart 6. Sources: The Conference Board Total Economy Database™, Angus Maddison, International Monetary Fund, ACR Alpine Capital Research



Chart 7. Sources: The Conference Board Total Economy Database™, Angus Maddison, International Monetary Fund, ACR Alpine Capital Research

IMPORTANT DISCLOSURES

ACR Alpine Capital Research LLC is an SEC registered investment adviser. For more information please refer to Form ADV on file with the SEC at <u>www.adviserinfo.sec.gov</u>. Registration with the SEC does not imply any particular level of skill or training.

All statistics highlighted in this research note are sourced from ACR's analysis unless otherwise noted.

It should not be assumed that recommendations made in the future will be profitable or will equal the performance of the examples discussed. You should consider any strategy's investment objectives, risks, and charges and expenses carefully before you invest.

This information should not be used as a general guide to investing or as a source of any specific investment recommendations, and makes no implied or expressed recommendations concerning the manner in which an account should or would be handled, as appropriate investment strategies depend upon specific investment guidelines and objectives. This is not an offer to sell or a solicitation to invest.

This information is intended solely to report on investment strategies implemented by Alpine Capital Research ("ACR"). Opinions and estimates offered constitute our judgment as of the date set forth above and are subject to change without notice, as are statements of financial market trends, which are based on current market conditions. There are risks associated with purchasing and selling securities and options thereon, including the risk that you could lose money. All material presented is compiled from sources believed to be reliable, but no guarantee is given as to its accuracy.

The Equity Quality Return (EQR) Advised / SMA Composite consists of equity portfolios managed for non-wrap fee and wrap fee clients according to the Firm's published investment policy. The composite investment policy includes the objective of providing satisfactory absolute and relative results in the long run, and to preserve capital from permanent loss during periods of economic decline. EQR invests only in publicly traded marketable common stocks. Total Return performance includes unrealized gains, realized gains, dividends, interest, and the re-investment of all income. Pure Gross returns are gross of all fees and do not reflect the deduction of transaction costs in wrap portfolios. Pure Gross returns are supplemental information. Net of ACR Fee returns are Pure Gross returns reduced by 1.0% per annum, which is the standard management fee for the Equity Quality Return strategy. Please refer to our full composite performance presentation with disclosures published under the Strategies section of our web site at www.acr-invest.com/strategies/eqr-advised-sma-composite.

The S&P 500 TR Index is a broad-based stock index including reinvestment of dividends and has been presented as an indication of domestic stock market performance. The S&P 500 TR index is unmanaged and cannot be purchased by investors.