



## ANALYTICS INVESTMENT ADVISORS, LLC

### Failure of Economics

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#### What?

- *“Human conditions and the radical uncertainty of our world renders the standard economic model – and the theory behind it – useless for dealing with financial crises”.*<sup>1</sup>

#### Why?

- *Emergent Phenomena*; the sum of human interaction can produce unexpected results that are not related to the intentions of individual investors.<sup>2</sup>
- *Non-Ergodicity*; human connections and probabilities are constantly changing.<sup>3</sup>
- *Radical Uncertainty*; the absence of the range or probability of future outcomes.<sup>4</sup>
- *Computational Irreducibility*; the nature of human interaction is so unfathomable and complex it is impossible to create models to anticipate future events and outcomes.<sup>5</sup>
- *Reflexivity*; observations of the economy lead to ideas that modify behavior, which in turn, changes the economy.<sup>6</sup>

#### How?

- Embrace the complexity of our economic system and understand as much as possible the way our financial system operates (for example Charts 1 & 2).
- Invest using a handful of Exchange Traded Funds (ETFs) concentrating on a limited number of themes. Sprawling portfolios obfuscate risk and prevent the necessary understanding and flexibility to make adjustments warranted by changing market conditions.<sup>7</sup>

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<sup>1</sup> Bookstaber, Richard; *The End of Theory – Financial Crises, the Failure of Economics, and the Sweep of Human Interaction*, Princeton University Press, Princeton and Oxford, 2017, inside cover.

<sup>2</sup> *Ibid.*, 17.

<sup>3</sup> *Ibid.*, 48.

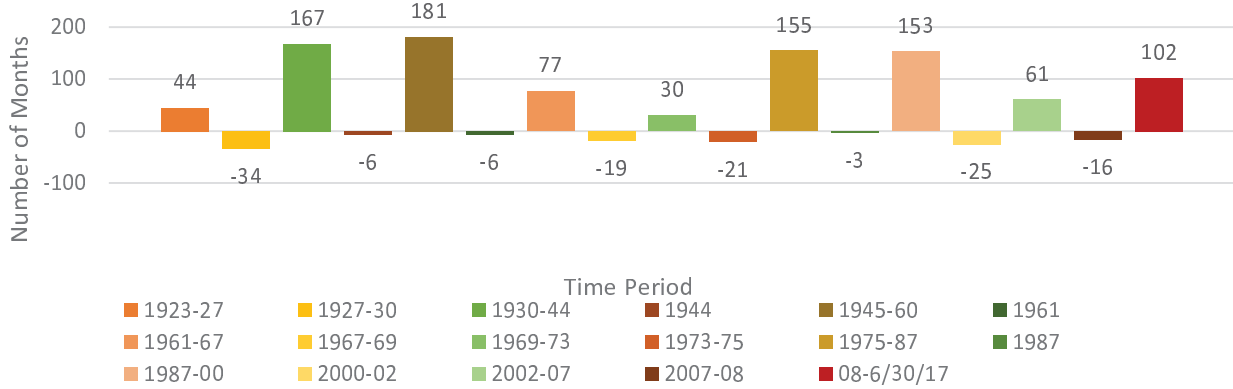
<sup>4</sup> *Ibid.*, 50-51.

<sup>5</sup> *Ibid.*, 12.

<sup>6</sup> *Ibid.*, 50.

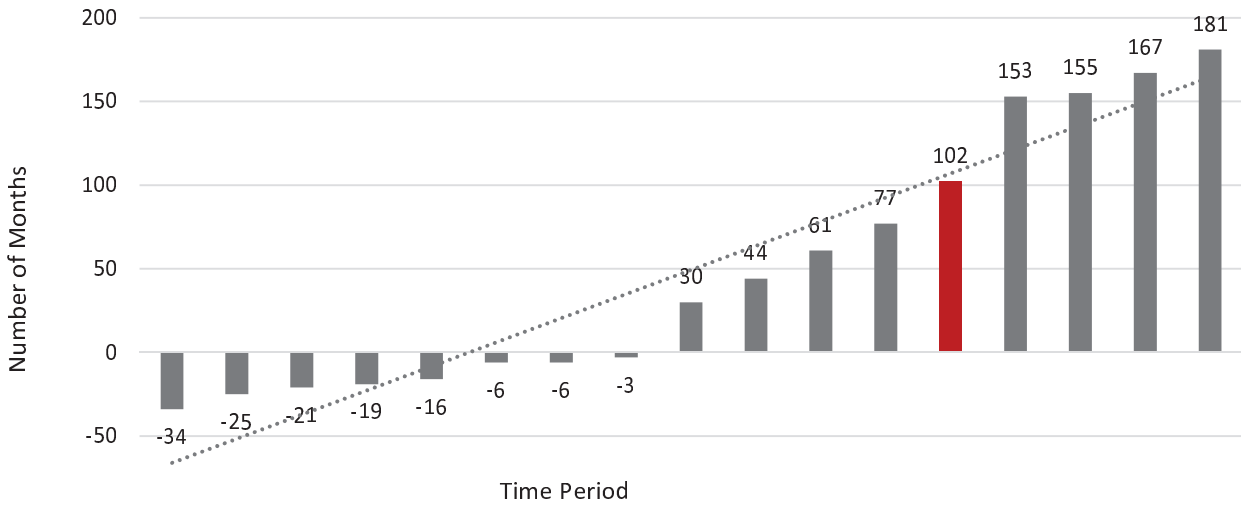
<sup>7</sup> Masonson, Leslie N., *Buy, Don't Hold – Investing with ETFs Using Relative Strength to Increase Returns With Less Risk*, FT Press, 2010.

**Chart 1**  
**Historical Bull & Bear Markets**  
 Chronological  
 Jan 1, 1923 - July 1, 2017\*



\*Source: 1923-2015, Jerry Kerns, Morningstar; 2016-Present, Analytics Investment Advisors, LLC.

**Chart 2**  
**Bull and Bear Markets**  
 Ascending  
 Jan 1, 1923 to June 30, 2017



| Time Period | 1927-30 | 2000-02 | 1973-75 | 1967-69 | 2007-08 | 1944 | 1961 | 1987 | 1969-73 | 1923-27 | 2002-07 | 1961-67 | 2008-17 | 1987-00 | 1975-87 | 1930-44 | 1945-60 |
|-------------|---------|---------|---------|---------|---------|------|------|------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Months      | -34     | -25     | -21     | -19     | -16     | -6   | -6   | -3   | 30      | 44      | 61      | 77      | 102     | 153     | 155     | 167     | 181     |

## Performance Summary

**Cautious Strategy:** Cautious investors seeking better than nominal returns, but with low risk and emphasis on preservation of wealth (Risk Score: 111-200).

**Moderate Strategy:** Prudent investors desiring a portfolio designed to accomplish medium to long term financial goals and an investment strategy which accounts for taxes and inflation. Calculated risk is acceptable to achieve good returns (Risk Score: 201-290).

**Assertive Strategies 1 & 2:** Assertive investors with sufficient income to invest mostly for capital growth. Higher volatility, moderate risk, and more aggressive investments are acceptable to accumulate wealth over time (Risk Score: 291-390).

**Aggressive Strategy:** Aggressive investors intending to compromise portfolio balance in pursuit of higher long term returns. Security of capital is secondary to potential wealth accumulation (Risk Score: 391-450).

|               | 5 Year<br>Average* | YTD*<br>06/30/2017 |      |         |        |      |      |
|---------------|--------------------|--------------------|------|---------|--------|------|------|
| S&P 500       | 12.90%             | 7.92%              |      |         |        |      |      |
| Barclay US TR | 2.23%              | 2.27%              |      |         |        |      |      |
|               |                    |                    | %AUM | Alpha** | Beta** | R2** | SD** |
| Cautious      | 8.30%              | 7.85%              | < 1% | -2.01   | 1.38   | 0.72 | 4.91 |
| Moderate      | 11.29%             | 8.80%              | 30%  | -0.01   | 1.21   | 0.80 | 4.21 |
| Assertive 1   | 13.92%             | 9.69%              | 32%  | 0.09    | 1.13   | 0.75 | 4.87 |
| Assertive 2   | 17.68%             | 15.66%             | 26%  | 0.78    | 1.40   | 0.76 | 5.57 |
| Aggressive    | 17.56%             | 21.67%             | 11%  | 0.54    | 2.51   | 0.65 | 9.40 |

\* Net Size Weighted Returns, PortfolioCenter, Schwab Portfolio Technologies. Returns are net of fees, which are negotiable and range between 50 and 125 basis points.

\*\*Risk Return Statistics, Analytics Investment Advisors, LLC; most recent 24 months.

