Here’s an investing approach that seeks to take advantage of seasonality in the stock market.

by Jay A. Kaeppel

The concept of “sell in May and go away” was first popularized by Yale Hirsch, founder of the Stock Trader’s Almanac, back in the early 1970s and has been analyzed six ways to Sunday and been deemed “valid,” “false,” and everything in between depending on how you look at it. Here is one point of view.

Since roughly 1949, yes, the US stock market has performed vastly better during the months of November through May than during the months of June through October. For our purposes here, I will refer to the months of November through May as the “power zone” and the months of June through October as the “dead zone.”

THE POWER ZONE VS. THE DEAD ZONE
If we look at the price-only action of the Dow Jones Industrial Average (DJIA) 10/31/1949 through 10/31/2018, we find that during the power zone period, the DJIA gained 10,965% (Figure 1). During the dead zone period, the DJIA gained a grand total of 20%.

So there really is no debating the fact that over the past roughly seven decades, the stock market has performed better during the power zone than during the dead zone. Nevertheless, from a real-world investing point of view, a close perusal of Figure 2 reveals that while the net gain for stocks during the dead zone was very low, the reality is that on a year-to-year basis, dead
zone performance is fairly random. In fact, within every decade there were multiyear periods where the stock market gained ground between the end of May and the end of October. Investors should note that this can be a source of frustration. Still, it does not materially alter the approach I will describe here.

**The Power Zone/Dead Zone Approach**

The power zone/dead zone approach (hereafter PZDZ) was devised by Jerry Minton, President of Alpha Investment Management, Inc. (where I am director of research) during in-house data testing. He originally tested this hypothetical approach while doing research into ways to take advantage of the unique difference in market performance between the power zone and dead zone. The PZDZ approach simply involves holding the S&P MidCap 400 index during the power zone and holding intermediate-term (that is, three- to seven-year) treasury bonds during the dead zone.

The theory underlying holding the midcap index is that the midcap space is where a great deal of growth takes place. In essence, you can think of the midcap space as containing formerly small-cap stocks on their way to becoming large-cap stocks. While this generalization certainly does not apply to every mid-cap stock, in general, we are talking about companies that are more well-established than small-caps but with potentially more room to grow than large-caps.

The S&P MidCap 400 index was calculated starting in 1981. All results presented in this article are hypothetical returns generated using month-end index total return data. No fees are deducted and the results do not represent the return of any real-time strategy. Figure 3 displays the percentage gain for this index during the power zone months only, from 1981 through May 2019.

As you can see, the growth of equity for the midcap index during the power zone has been remarkably consistent. In addition, the midcap index grew 2.9 times as much as the S&P 500 stock index.

During the “dead zone” months of June through October, the power zone/dead zone approach holds intermediate-term treasuries. As a benchmark, we will use the Bloomberg Barclays US Intermediate Treasury TR Index. Figure 4 displays the hypothetical

![Figure 1: DJIA % Gain During “Power Zone.”](image1)

*Here we see the cumulative percentage price gain in the Dow Jones Industrial Average (DJIA) during the period of November 1 through May 31, 1949–2018 (that is, during the “power zone” period).*

![Figure 2: DJIA % Gain During “Dead Zone.”](image2)

*Here we see the cumulative percentage price gain for the Dow Jones Industrial Average (DJIA) during the period of June 1 through October 31, 1950–2018 (that is, during the “dead zone” period).*

![Figure 3: Midcap 400 Index vs. S&P 500 Index, “Power Zone.”](image3)

*Here you see the cumulative total return for the S&P MidCap 400 index held November 1 through May 31, 1981–2019 (blue line) versus those for the S&P 500 index for the same period (red line).*

![Figure 4: Midcap 400 Index vs. S&P 500 Index, “Power Zone.”](image4)

*Here you see the hypothetical total return for the S&P MidCap 400 index held November 1 through May 31, 1981–2019 (blue line) versus those for the S&P 500 index for the same period (red line).*
Since roughly 1949, the US stock market has performed vastly better during the months of November through May than during the months of June through October.

The growth of equity achieved by holding this index during the dead zone versus buying and holding the S&P 500 index during the same period each year.

As you can see, the growth of equity for intermediate-term treasuries during the dead zone has been remarkably consistent. Also, treasuries grew 2.3 times as much as the S&P 500 index, without the swift and severe declines that the S&P 500 index experienced along the way. As I mentioned earlier, however, during those years when the stock market does perform well during June through October, if bonds don’t generate as much return, an investor may feel like they “missed out.” In essence, that is the price one pays for avoiding the regular downdrafts that occur during the dead zone.

**Putting the Two Zones Together**

For the purposes of this article, the hypothetical power zone/dead zone approach involves:

- Holding the S&P MidCap 400 index from November 1 through May 31 every year
- Holding the Bloomberg Barclays US Intermediate Treasury TR Index from June 1 through October 31 every year.

Figure 5 displays the cumulative hypothetical growth achieved by following the power zone/dead zone approach versus that generated by buying and holding the S&P 500 index from October 31, 1981 through July 31, 2019.

Over 37.75 years, the PZDZ approach outgained the S&P 500 index by a factor of 4.8 to 1.

**Measuring Performance**

While the equity curves displayed in Figure 5 are quite compelling, a few relevant statistics are helpful in illustrating the consistency of the performance of the PZDZ approach. As you can see in Figure 6, the PZDZ approach outperformed buying and holding the S&P 500 index in every category. Note the last line in Figure 6, which tells us that every rolling five-year lookback period witnessed the PZDZ approach showing a gain. The

**FIGURE 4: INTERMEDIATE-TERM TREASURIES VS. S&P 500 INDEX, “DEAD ZONE.”** Here you see the cumulative total return for the Bloomberg Barclays US Intermediate Treasury TR Index held June 1 through October 31, 1981–2018 (blue line) versus the S&P 500 index (red line) over the same period.

**FIGURE 5: POWER ZONE/DEAD ZONE APPROACH VS. S&P 500 INDEX.** This demonstrates the cumulative total return for the power zone/dead zone approach (blue line) versus buying and holding the S&P 500 index (red line) for the period 1981–2019.

**FIGURE 6: POWER ZONE/DEAD ZONE APPROACH VS. S&P 500 INDEX.** Some performance metrics are shown for the period 1981–2019.

<table>
<thead>
<tr>
<th>Measure</th>
<th>PZDZ</th>
<th>S&amp;P 500 Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. % during power zone</td>
<td>+13.2%</td>
<td>+10.0%</td>
</tr>
<tr>
<td>Avg. % during dead zone</td>
<td>+3.6%</td>
<td>+2.4%</td>
</tr>
<tr>
<td>12-mo. average %</td>
<td>+17.3%</td>
<td>+12.7%</td>
</tr>
<tr>
<td>% of times 12-mo. % &gt; 0</td>
<td>97%</td>
<td>89%</td>
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<tr>
<td>Cumulative % gain</td>
<td>+30,443%</td>
<td>+6,310%</td>
</tr>
<tr>
<td>Average 5-yr % (+)</td>
<td>+125%</td>
<td>+81%</td>
</tr>
<tr>
<td>Worst 5-yr % (+)</td>
<td>+53%</td>
<td>(-11%)</td>
</tr>
<tr>
<td>% of times 5-yr % &gt; 0</td>
<td>100%</td>
<td>94%</td>
</tr>
</tbody>
</table>
worst five-year gain for the PZDZ approach was +53%, versus a loss of -11% for the S&P 500 index.

ANOTHER WAY TO MEASURE PERFORMANCE
This is more of an author’s personal preference, but for any long-term strategy (particularly a mechanical strategy such as this one, with specific entry and exit criteria) I claim that the proper way to measure performance versus a benchmark index is from bull market high to bull market high and from bear market low to bear market low—that is, across complete bull/bear cycles. Figure 7 displays performance from bull market high to bull market high for the PZDZ approach and the S&P 500 index.

Figure 8 displays performance from bear market low to bear market low for the PZDZ approach and the S&P 500 index.

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Jay Kaeppel writes the monthly Explore Your Options column for this magazine. He is the editor of www.JayOntheMarkets.com, the author of four books on trading, including Seasonal Stock Market Trends (Wiley), and is the director of research at Alpha Investment Management, Inc. (www.alphaim.net). He may be reached at jaykaeppel@gmail.com.

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FURTHER READING
_____ [2006]. The Four Biggest Mistakes In Optioning, Wiley.
_____ [2000]. The Four Biggest Mistakes in Futures Trading, Wiley.