



*The Best Times To Invest*

# Stock Market Seasonality: A Global Phenomenon

*Is yearly seasonality something that is particular to the US stock market, or does it extend to other countries in the same way? Here's some research you can use to your advantage.*



The concept of “sell in May and go away” was first introduced by Yale Hirsch, founder of *The Stock Trader's Almanac*, back in the early 1970s. The underlying theory is that the stock market performs better from early winter into late spring than from late spring into early winter. Lots of studies have been done that seek to validate the reality of this theory and a whole other batch of studies have been done to try to debunk this theory.

In short—and painting with the broadest stroke possible—the good news is that US stocks do in fact tend to perform better during late winter into early spring. The bad news is that year-to-year results can vary greatly. An investor who sold all of their stocks every year at, say, the end of April and bought them back at the end of October may well outperform the overall market averages over time. However, during a certain number of years, those investors may vastly underperform a buy-and-hold approach if stocks happen to rally that year between May and October.

This can mess with an investor's psyche, as many investors are focused on comparing their annual calendar results to those of a benchmark such as the S&P 500 index. In their minds, a calendar year where their results trail the S&P 500 index is catalogued in their head as an “off year.” This mentality is unfortunate, as it ignores long-term results and focuses instead on performance during arbitrary measures of time. This is especially unfortunate, because over longer periods of time, the “sell in May” theory seems to hold water here in the US.

**EXPANDING TO A GLOBAL HORIZON**

As it turns out, annual seasonality is not just some random quirk of the US stock market. It is, in fact, a *worldwide* phenomenon. To illustrate the persistency of this tendency, I will look at the real-time performance of 17 single-country ETFs that were launched by iShares in 1996. This gives us more than two decades of real-time data to analyze and from which to draw conclusions. For our purposes, we will break the calendar year into two periods:

- **The “international power zone” (IPZ):** Extends from the close on October 31 through the close on April 30 of the following calendar year
- **The “international dead zone” (IDZ):** Extends from the close on April 30 each year through the close on October 31 that same year.

In a nutshell, we have six months of what I like to call the “power zone” and six months of what I'll call the “dead zone.” If the market was truly random, we would expect some countries to show gains during one period and a loss during the other, while other countries would show either the opposite or at least a roughly similar performance across the two periods. How did it work out in reality? Let's take a closer look.

**THE DATA**

We will use 17 iShares ETFs, each tracking a stock index for a specific country, beginning with March 1996, with the first full calendar month of data coming in April 1996. For our purposes we will:

- Use monthly total return data from the PEP Database from Callan Associates
- Start our testing on 4/30/1996 and extend through

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4/30/2019. This gives us 23 completed “international dead zone/international power zone” cycles to analyze.

## THE TESTS

- The first test we will conduct will involve calculating the cumulative gain or loss achieved for each individual single-country ETF during the “international power zone” months.
- The first test will also involve calculating the cumulative gain or loss achieved for each individual single-country ETF during the “international dead zone” months.

We can then compare the difference between IPZ performance and IDZ performance to see if there are any discernible trends.

- The next test will involve calculating the percentage of years in which each single-country ETF achieved a gain during the IPZ months.
- The test following that one will involve calculating the percentage of years in which each single-country ETF achieved a gain during the IDZ months.

Finally, we can compare the percentage of times each ETF registered a gain during the IPZ versus the percentage of time a gain was registered during the IDZ to once again observe whether there are any significant or persistent differences in performance.

Country	ETF	International Power Zone % +(-)	International Dead Zone % +(-)
Australia	EWA	+549%	(-31%)
Canada	EWC	+388%	+10%
Sweden	EWD	+1,079%	(-66%)
Germany	EWG	+515%	(-54%)
Hong Kong	EWH	+291%	(-41%)
Italy	EWI	+402%	(-64%)
Japan	EWJ	+94%	(-35%)
Belgium	EWK	+299%	(-36%)
Switzerland	EWL	+380%	(-25%)
Malaysia	EWM	+676%	(-83%)
Netherlands	EWN	+398%	(-45%)
Austria	EWO	+737%	(-71%)
Spain	EWP	+414%	(-28%)
France	EWQ	+421%	(-35%)
Singapore	EWS	+416%	(-76%)
United Kingdom	EWU	+258%	(-34%)
Mexico	EWV	+910%	(-53%)

**FIGURE 1: CUMULATIVE INTERNATIONAL POWER ZONE AND INTERNATIONAL DEAD ZONE RETURNS, 1996–2019.** All 17 single-country ETFs registered a cumulative gain during the “power zone” months (November–April).

## THE RESULTS

The table in Figure 1 displays the 17 single-country iShares ETFs in the left-hand column. The cumulative gain or loss for each ETF achieved *only* during the international power zone months appears in the middle column and the cumulative gain or loss for each ETF achieved *only* during the international dead zone months is in the right-hand column.

Here are a few things to note from Figure 1:

- All 17 ETFs registered a cumulative gain during the IPZ months
- Only one ETF (Canada) registered a cumulative gain during the IDZ months
- The average IPZ cumulative return across all 17 ETFs was +484%
- The average IDZ cumulative return across all 17 ETFs was -45%.

The bottom line regarding the results displayed in Figure 1 is that every single ETF registered a cumulative gain during the IPZ and those returns in every case were vastly superior to the returns registered for each ETF during the IDZ months.

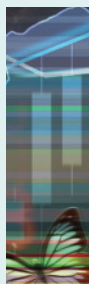
The table in Figure 2 displays the percentage of years in which each ETF achieved a gain during the international power zone months in the middle column and the percentage of years in which each ETF achieved a gain during the international dead zone months in the right-hand column.

Here are a few things to note from Figure 2:

- 16 ETFs showed a gain during the IPZ at least 70% of

Country	ETF	% of time UP during International Power Zone	% of time UP during International Dead Zone
Australia	EWA	87%	48%
Canada	EWC	83%	65%
Sweden	EWD	83%	52%
Germany	EWG	78%	61%
Hong Kong	EWH	74%	65%
Italy	EWI	74%	43%
Japan	EWJ	61%	35%
Belgium	EWK	74%	65%
Switzerland	EWL	78%	52%
Malaysia	EWM	70%	52%
Netherlands	EWN	70%	57%
Austria	EWO	78%	52%
Spain	EWP	78%	52%
France	EWQ	74%	61%
Singapore	EWS	74%	43%
United Kingdom	EWU	78%	52%
Mexico	EWV	78%	43%

**FIGURE 2: GAINS IN THE POWER ZONE.** Every single-country ETF on the list registered a higher percentage of winning periods during the “international power zone” (November–April) than during the “international dead zone” (May–October).



## The tendency for stocks from countries all around the world to perform better from November through April than from May through October appears to be one of the most surprisingly persistent trends recognizable in the financial markets.

the time (Japan showed a gain during the IPZ 61% of the time)

- Only five ETFs showed a gain during the dead zone at least 60% of the time
- The average power zone % of UP years was 76% across all 17 ETFs
- The average dead zone % of UP years was 53% across all 17 ETFs
- All 17 ETFs showed a higher winning percentage during the IPZ than during the IDZ.

The bottom line regarding the results displayed in Figure 2 is that every single-country ETF on our list registered a higher percentage of winning periods during the IPZ than during the IDZ.

### ONE LAST TEST USING ALL 17 ETFs

In our final test we take the average monthly total return for all 17 ETFs in our dataset, and accumulate the monthly gain or loss during the IPZ versus the IDZ. This test starts April 30, 1996 and extends 23 years through April 30, 2019. You can observe the following in Figure 3:

- During the IPZ, the cumulative gain was +698%
- During the IDZ, the cumulative loss was (-46%).

### SUMMARY

The tendency for stocks from countries all around the world to perform better from November through April than from May

through October appears to be one of the most surprisingly persistent trends recognizable in the financial markets.

While it can be argued that there is such a thing as a “global economy,” at the same time it is hard to make a direct connection between the economies of, say, Canada and Singapore or between Hong Kong and Mexico. One would logically expect that different countries would experience different patterns of economic activity and, as a result, different patterns of stock market performance. But that does not appear to be the case.

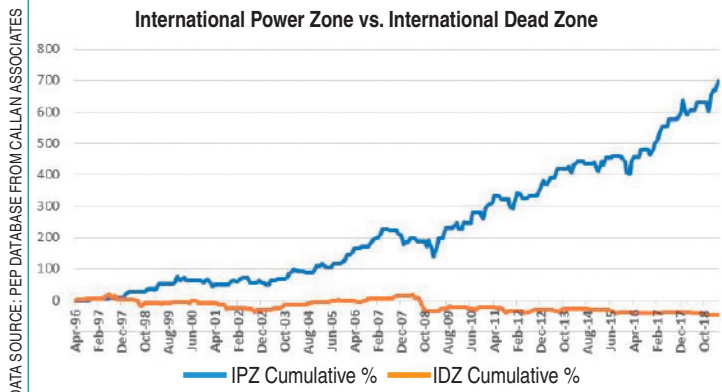
Despite the fact that each country has its own economic ups and downs, single-country ETFs performed essentially in lockstep in terms of *when* gains and losses were accumulated. This argues for more of an overarching driving force. It also suggests that this is an inherent structural “edge” that long-term investors may be able to exploit to their benefit.

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### FURTHER READING

- Kaepfel, Jay [2009]. *Seasonal Stock Market Trends: The Definitive Guide To Calendar-Based Stock Market Trading*, Wiley.
- [2006]. *The Four Biggest Mistakes In Option Trading*, Wiley.
- [2000]. *The Four Biggest Mistakes in Futures Trading*, Wiley.
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**FIGURE 3: CUMULATIVE EAFE INDEX % +(-) DURING IPZ VERSUS CUMULATIVE EAFE INDEX % +(-) DURING IDZ, 1996–2019.** During the “international power zone” (November–April), the cumulative gain was +698%. During the “international dead zone” (May–October), the cumulative loss was -46%.