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# Ninety Days Post-PASPA: The Near-Term Financial Economic Impacts on Gaming and Casino Stocks

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The U.S. Supreme Court ruled the 1992 Professional and Amateur Sports Protection Act (PASPA) unconstitutional on Monday, May 14, 2018 in a 6-3 decision. In general under PASPA individuals could only bet on sporting events in the state of Nevada though wagering on horse races was permitted at the state level. Post-PASPA, betting on individual sporting events could become a substitute for wagering on horse races, or it could become a complement to it if general gamblers pursue horse racing. Over time the availability of racetrack-level and related sports betting data will enable researchers to quantify these effects on the evolution of the equine industry. In the meantime, the message in the stock market was quite clear on May 14th and the subsequent 10 days of trading – returns to gaming and casino shares increased sharply and those increases were statistically significant.

Data collected on investors betting on publicly-held gaming and casino stocks have provided some initial insights to the recent deregulation of the market. These data are publicly available on sites such as Yahoo Finance, which is the source of data for this study. Using a year's worth of daily trading data through Friday May 11, 2018 for eleven relevant publicly-held companies, daily returns were calculated and then correlated individually with the daily returns of the S&P 500 index. Given these stocks are 'positive beta' securities (i.e., their daily returns rise as daily returns to the broader market index rise), it was no surprise that they individually exhibited positive returns on May 14th as the broader market returns had increased slightly that day. The question to ask from an analytics perspective is *by how much more* did the returns increase beyond what was expected? This concept is called abnormal returns (AR) in financial economics parlance. Table 1 catalogues not only the AR calculated on May 14th, but also the cumulative abnormal returns (CAR) five and then ten trading days after the May 14th event.

Table 1. Summary of Actual, Expected, and Abnormal Returns

| | On May 14th | | | Cumulative Abnormal Returns | |
|---|---|---|---|---|---|
| Company | Actual Returns | Expected Returns | Abnormal Returns | +5 Days | +10 Days |
| Boyd Gaming Corporation (BYD) | 3.01% | 0.19% | 2.83% | 4.90% | 7.25% |
| Caesars Entertainment Corp (CZR) | 5.32% | 0.07% | 5.24% | 7.65% | 5.38% |
| Churchill Downs Inc (CHDN) | 4.76% | 0.23% | 4.52% | 9.55% | 8.20% |
| Eldorado Resorts Inc (ERI) | 2.34% | 0.33% | 2.01% | 1.92% | 5.53% |
| International Game Technology PLC (IGT) | 3.08% | 0.15% | 2.93% | 3.95% | -10.27% |
| Las Vegas Sands Corp (LVS) | -0.84% | 0.17% | -1.01% | 0.69% | 2.06% |
| MGM Resorts International (MGM) | 1.62% | 0.06% | 1.56% | 0.70% | 0.54% |
| Paddy Power Betfair PLC (PDYPY) | 11.83% | 0.03% | 11.81% | 19.91% | 22.85% |
| Penn National Gaming Inc (PENN) | 4.58% | 0.27% | 4.31% | 7.50% | 5.93% |
| Scientific Games Corporation (SGMS) | 10.57% | 0.38% | 10.19% | 13.29% | 10.34% |
| William Hill PLC (WIMHY) | 13.44% | 0.05% | 13.39% | 15.21% | 13.00% |

For most of the firms, the AR metrics were positive and statistically significant on the day PASPA was struck down as expected. The largest gainers in win-place-show positioning were England-based sports bookmaker William Hill PLC, Ireland-based Paddy Power Betfair PLC, and Scientific Games Corporation (SGMS). The latter two have a growing presence in the recently deregulated U.S. market. In the subsequent ten trading days, most firms continued to see an increase in their CAR metrics as well. As each firm differs with its portfolio of businesses, product mix within those businesses, and geographic footprint, one would anticipate differential impacts as is observed here. Taken collectively however, it is not unreasonable to surmise the investing public has initially perceived the ruling as good for growth in the gaming and casino industry. A Technical Appendix is also available which provides detailed analytics and references underlying the results summarized in Table 1.

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