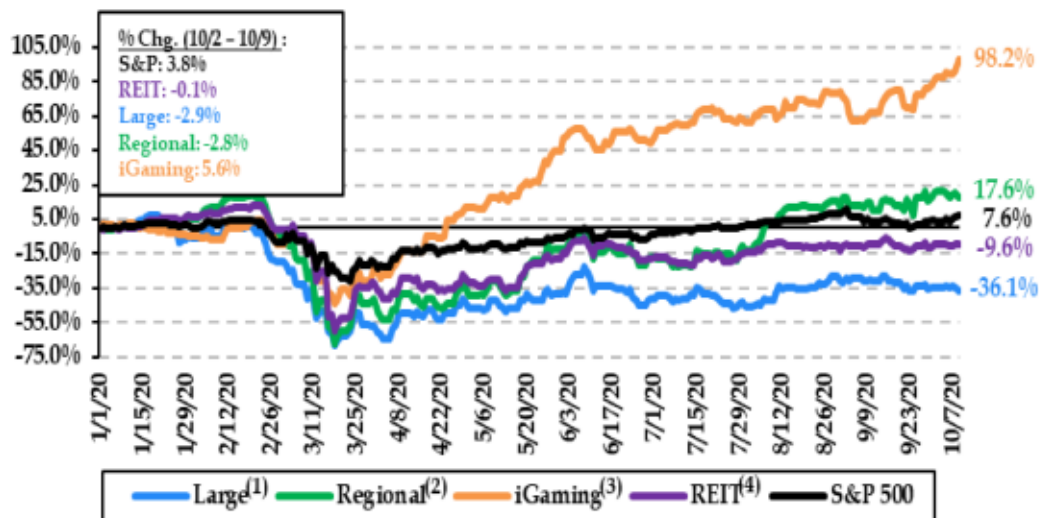


Online Casino Gaming Industry Trends During COVID-19 Recovery Period

As the gaming industry continues to emerge from the enduring impacts of COVID-19 there are several notable trends and market dynamics. Some trends are specific to certain regions based on differential recovery rates or regulatory measures. However, one prevalent theme is an increase in online gaming activity.

The public markets serve as one indicator of this theme. As evidenced in the following chart, the iGaming index is handily outperforming all other gaming indices. While stock trends do not necessarily reflect market realities, investment decisions are led by research. The Innovation Group has received requests for information on iGaming potential from a handful of investment banks and private wealth managers to this end.

Public Gaming Large-Cap, Regional, iGaming & REIT Gaming Indices vs. S&P 500

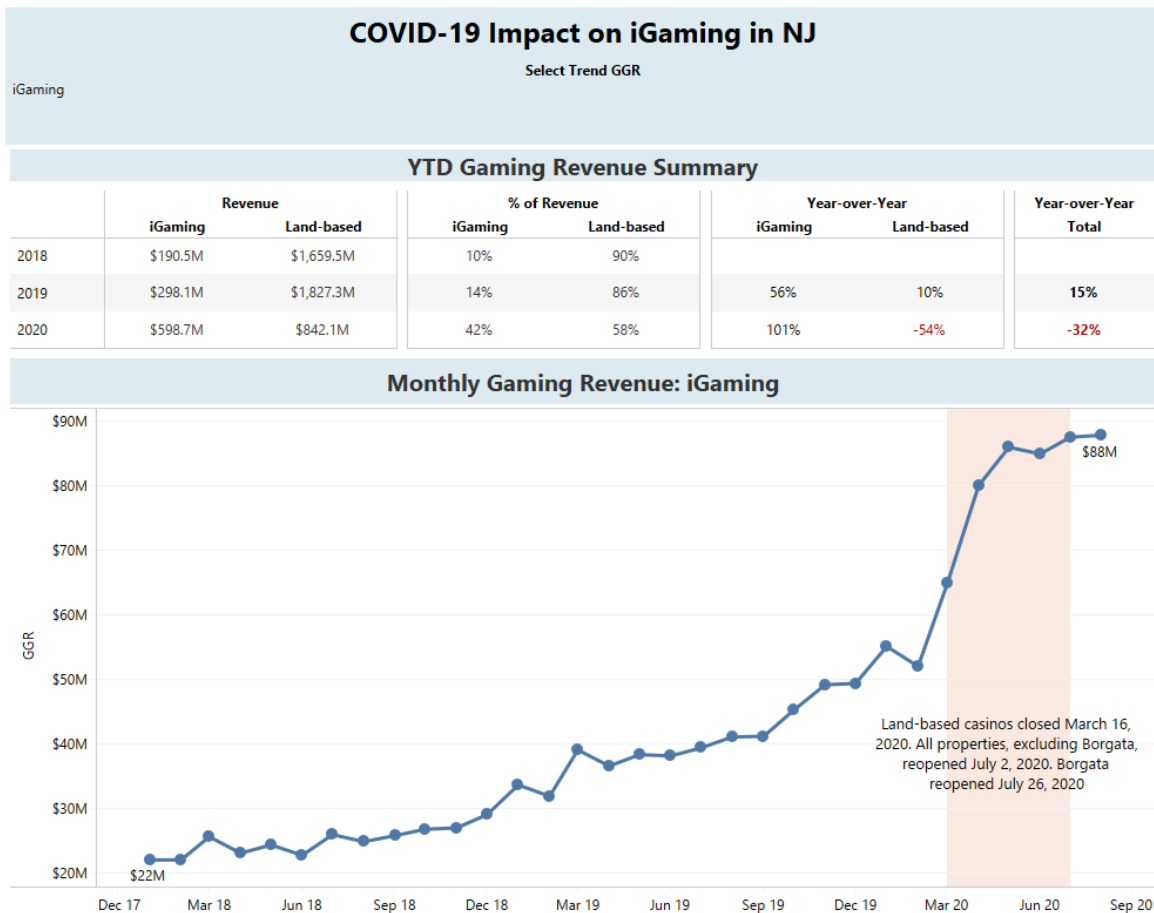


Source: Cap IQ as of 10/9/2020.

- (1) Large-cap gaming index composed of LVS, MGM, CZR and WYNN.
- (2) Regional gaming index composed of PENN, BYD, CHDN, RRR, GDEN, TRWH, MCRI, CNTY and FLL.
- (3) iGaming index composed of FLTR, EVO, DKNK, KIND SDB, KAMBI, LEO, ASPIRE, BRAG, GVC, OPAP, WMH, PTEC, 888, NET B, BETS B, GIG, WEB, GAN and SPO.
- (4) Gaming REIT index composed of GLPI, VICI and MGP.

In addition to stock trends, The Innovation Group is following online gaming revenue trends, comparing online revenue production in pre-COVID months, during bricks and mortar closures, and within the (recent) re-opening period. Academic research from Europe, Canada and the United States examining online gambling behavior changes due to COVID-19 shows a notable increase in iGaming since the onset of the pandemic and through subsequent casino closures.¹ In some cases, up to two-thirds of the current online player base *never* played online before the pandemic.

While we have not yet ascertained the “staying power” of these new online gamers, early data out of the U.S. does not indicate a mass exodus of new online gamers following casino re-openings. As the charts for New Jersey and Pennsylvania below illustrate, there was a rapid increase in iGaming activity at the onset of COVID-19 and a greater increase as casinos closed. Despite a minor decrease in online play when casinos re-opened, iGaming revenues seem to have stabilized at a run rate consistent with the highest levels achieved thus far.



¹ Håkansson, A. Changes in Gambling Behavior during the COVID-19 Pandemic—A Web Survey Study in Sweden. *Int. J. Environ. Res. Public Health* **2020**, *17*, 4013; Lindner P, Forsström D, Jonsson J, Berman AH and Carlbring P (2020) Transitioning Between Online Gambling Modalities and Decrease in Total Gambling Activity, but No Indication of Increase in Problematic Online Gambling Intensity During the First Phase of the COVID-19 Outbreak in Sweden: A Time Series Forecast Study. *Front. Public Health* 8:554542. doi: 10.3389/fpubh.2020.554542; Auer, M., Malischinig, D. & Griffiths, M.D. Gambling Before and During the COVID-19 Pandemic Among European Regular Sports Bettors: An Empirical Study Using Behavioral Tracking Data. *Int J Ment Health Addiction* (2020). <https://doi-org.ezproxy.library.unlv.edu/10.1007/s11469-020-00327-8>; Price, A. Online Gambling in the Midst of COVID-19: A Nexus of Mental Health Concerns, Substance Use and Financial Stress. *Int J Ment Health Addiction* (2020). <https://doi-org.ezproxy.library.unlv.edu/10.1007/s11469-020-00366-1>; Xuereb, S., Kim, H. S., Clark, L., & Wohl, M. J. A. (2020, June 24). Substitution behaviors among casino gamblers during COVID-19 precipitated casino closures. <https://doi.org/10.31234/osf.io/fvnmf>

COVID-19 Impact on iGaming in PA

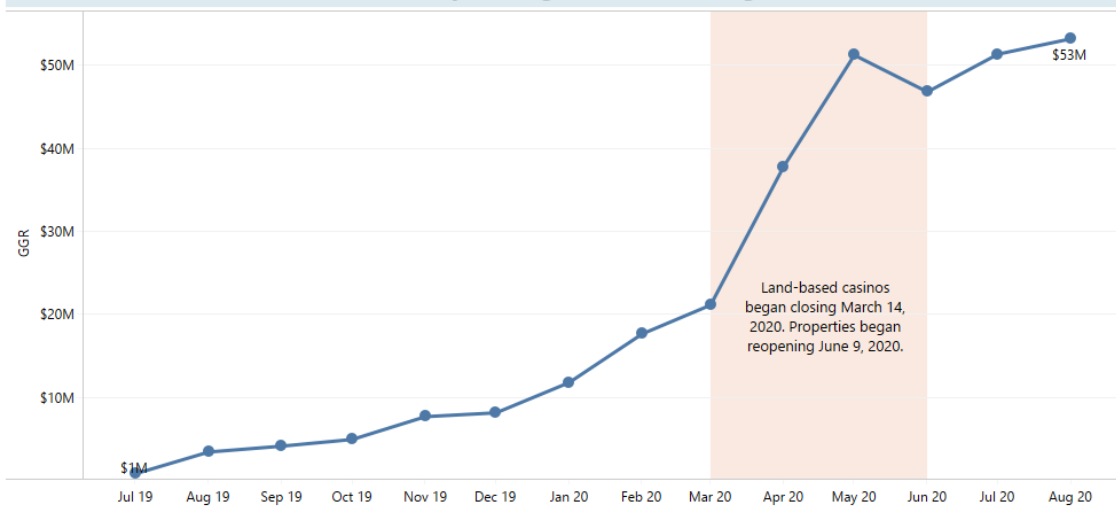
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iGaming

YTD Gaming Revenue Summary

	Revenue		% of Revenue		Year-over-Year		Year-over-Year
	iGaming	Land-based	iGaming	Land-based	iGaming	Land-based	Total
2018		\$2,195.7M		100%			
2019	\$4.2M	\$2,218.0M	0%	100%		1%	1%
2020	\$291.0M	\$1,184.4M	20%	80%	6763%	-47%	-34%

Monthly Gaming Revenue: iGaming



It remains to be seen if these new online gamers will remain long-term and whether there is a substitution factor where online gaming revenue replaces traditional casino revenue. While bricks and mortar casino revenue continues to lag, this could still be tied substantially to capacity restrictions and health concerns related to COVID-19. Given these two uncertainties we must reserve judgment on whether there will ultimately be a larger base of combined gaming activity, and how the shares of online versus bricks and mortar revenue will play out.