



**THE  
INNOVATION  
GROUP**

# **Coronavirus Recovery Analysis**

A Gaming Industry White Paper

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# Gaming Industry Recovery Analysis

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# INTRODUCTION

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The Innovation Group's *Coronavirus Recovery Analysis, A Gaming Industry White Paper* is a review of our preliminary analysis of the potential recovery patterns of the gaming industry from COVID-19. Despite wide variation in potential outcomes and differing epidemiological views on the extent and duration of containment of the coronavirus, knowing the baseline prospects for recovery in your market can assist in making the right decisions at the right time. Although though the results we are sharing here are at the national and regional level, baseline property-specific forecasts can be generated within the model, taking local market assumptions and emerging data on customer sentiment into account.

The Innovation Group used US Commercial casino revenue for 2019 as the baseline test case in the recovery model forecast, and we also present regional percentage recovery estimates (relative to 2019) that apply to commercial and tribal casinos. The forecasts include revenue from traditional slots and tables, historical horse racing (HHR) machines, and sports betting when reported with casino revenue by a jurisdiction (principally Mississippi). Online and other non-casino gaming revenue are addressed separately.

Though our quantitative forecast tool is unique to the US regional markets, we are also tracking and positioned to provide recovery guidance for specific destination and international markets. In addition, we have tracked online gaming trends separately in the wake of the coronavirus. The future of the online business will undoubtedly be influenced by COVID-19; however, taking permanent impacts on casino gaming into account will require at least some data from the period immediately following reopening in a handful of sample markets.

There are many caveats to this analysis, as this is an unprecedented situation and conditions are still in great flux. However, the recovery model is a useful tool to begin to quantify what business volumes will likely look like in a post-lockdown world. As conditions become more settled, we will provide updates and refinements including updated regional recovery estimates. Individual property estimates are likely to vary, in some cases significantly, from those based on national or regional averages, depending upon the level of virus caseload and unemployment experienced, and customer responses to new regulations.

Several key demand and supply factors are important in making strategic operating or capital expense decisions:

## Demand Considerations

**Employment and Income:** Do people have jobs and money to spend? Although there is no precedent of the magnitude of COVID-19, this factor is quantifiable to a degree based on recovery trends from the Great Recession.

**Consumer Sentiment:** Will consumers be more cautious in their spending even if they have the means? This factor is more subjective although quantifiable to a degree through consumer confidence measurements.

**Customer Perception of Safety:** Will previous gamers continue to avoid public spaces like casinos, and for how long? Again, there is no modern precedent to COVID-19. But air passenger trends following 9/11 can inform to some degree. Additionally, there is a narrow window (first two weeks of March) in states with weekly reporting statistics that provides insight into gaming behavior immediately preceding industry closure.

## Supply Considerations

**Social Distancing Constraints:** In advance of full containment of COVID-19, casinos are likely to institute social distancing measures that will limit the number of gaming positions available. This would result in capacity constraints, especially in high-volume casino markets like the northern suburbs of Chicago or in semi-monopolistic Native American markets. Thus, we assume spacing adjustments in casinos result in capacity constraints on top of the demand response.

However, the impact of new spacing policies is not ubiquitous. In a casino where historically only one out of every three slot machines was occupied at peak, there would be less sensitivity to an effective supply cap than a casino fully occupied during peak periods. Therefore, we assess five levels of supply constraint in the model using pre-coronavirus win per position (WPP) as a proxy for baseline customer volume.

**New Development and Maintenance CAPEX:** In our model, we have not included the potential impact of tight credit markets constraining greenfield development or planned property expansions. Nor have we considered the possible impact of lapsed facility upkeep which may result in players shifting their property of preference, though not reducing their baseline level of play.

**Potential Closures:** We recognize that COVID-19 may result in a limited number of permanent casino closures. This could result from insufficient liquidity in poor locations where reopening under current or new ownership does not pencil. Our model does not account for potential closures until and unless they are publicly announced. However, this should have a somewhat neutral effect on the forecast results assuming reduced supply will generally occur in more markets where lost revenue would likely be absorbed in the remaining facilities.

## US MARKETS

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The Innovation Group used US Commercial casino revenue 2019 as the test case in the recovery model forecast, and we also present regional percentage recovery estimates (relative to 2019) that apply equally to commercial and tribal casinos. The forecasts include revenue from traditional slots and tables, historical horse racing (HHR) machines, and sports betting when reported with casino revenue by a jurisdiction (principally Mississippi). Online and other non-casino gaming revenue are addressed separately.

Prior to the virus outbreak, US commercial and tribal casinos had enjoyed steady growth in recent years. Commercial casinos were on an upward trajectory all the way through February 2020, but by mid-March the entire industry had shut down except for online wagering. Outside of Las Vegas, the US gaming industry is primarily a domestic industry, so the challenges for recovery differ significantly from most Asian markets which depend heavily on international visitation. Therefore, in this section we focus primarily on domestic market conditions including COVID-19 caseloads and economic trends.

### *Pre-Corona Landscape*

#### **Commercial Gaming Revenue Trends**

Commercial states (plus Connecticut slot revenue) enjoyed steady gaming revenue growth in the past five years. Total gaming revenue in commercial states exceeded \$43 billion in 2019. A new casino in Massachusetts, expansions and ramp up in Kentucky, and a mild winter fueled strong growth in the first two months of 2020 in every jurisdiction except Rhode Island (impact of Encore Massachusetts).

**Table 1: Percent Change and 2019 Gaming Revenue for Commercial States (CYs)**

	2015	2016	2017	2018	2019	Jan-Feb 2020	2019 Revenue (MMs)
Arkansas	26.5%	9.2%	8.3%	6.0%	7.8%	17.2%	\$400
Colorado	5.9%	2.6%	2.1%	1.7%	-1.0%	4.8%	\$834
Connecticut	-2.2%	0.9%	2.0%	-1.9%	-6.9%	4.7%	\$982
Delaware	0.2%	-1.5%	2.7%	-0.4%	3.4%	6.9%	\$421
Florida	4.6%	2.9%	0.1%	4.2%	0.9%	4.0%	\$574
Iowa	2.0%	1.5%	1.1%	0.3%	0.0%	16.9%	\$1,468
Illinois	10.9%	-5.3%	-5.7%	-1.7%	-1.7%	10.1%	\$1,413
Indiana	-1.2%	-1.2%	1.3%	-0.1%	-1.7%	16.7%	\$2,060
Kansas	4.0%	-0.9%	7.0%	4.9%	1.8%	10.1%	\$416
Kentucky	28.7%	74.9%	24.3%	42.8%	98.5%	43.5%	\$221
Louisiana	7.1%	-4.2%	0.9%	0.0%	-5.0%	4.9%	\$2,432
Maryland	18.0%	9.5%	34.2%	8.2%	0.5%	9.9%	\$1,757
Maine	-0.2%	4.8%	-7.2%	16.4%	1.0%	12.3%	\$145
Massachusetts		75.7%	6.3%	65.7%	163.1%	62.3%	\$719
Michigan	3.3%	0.7%	1.1%	3.1%	0.7%	6.7%	\$1,454
Missouri	2.5%	0.8%	1.3%	1.0%	-1.4%	7.2%	\$1,729
Mississippi	1.4%	1.2%	-2.0%	2.2%	3.5%	1.8%	\$2,201
New Jersey	-8.5%	-7.8%	-0.4%	0.3%	4.0%	9.7%	\$2,510
Nevada	0.9%	1.3%	2.8%	3.0%	0.9%	4.2%	\$12,031
New York	2.8%	3.6%	19.1%	8.7%	4.4%	10.6%	\$2,731
Ohio	12.8%	2.9%	5.0%	4.6%	4.5%	14.6%	\$1,941
Pennsylvania	3.4%	1.2%	0.4%	0.7%	0.6%	4.2%	\$3,267
Rhode Island	0.5%	0.0%	0.7%	3.9%	-3.0%	-5.0%	\$605
South Dakota	0.9%	-0.8%	0.5%	-1.0%	2.9%	19.0%	\$103
West Virginia	18.7%	11.9%	6.6%	4.2%	-3.8%	17.8%	\$934
<b>Total</b>	<b>3.0%</b>	<b>0.8%</b>	<b>3.4%</b>	<b>2.8%</b>	<b>1.8%</b>	<b>7.7%</b>	<b>\$43,349</b>
<b>Vegas Strip</b>	<b>-1.0%</b>	<b>1.2%</b>	<b>2.1%</b>	<b>0.8%</b>	<b>2.1%</b>	<b>4.9%</b>	<b>\$6,135</b>

Source: State Gaming Commissions; The Innovation Group

As concern over the virus began to take hold in March, the strong growth streak ended. In states that report weekly (New York and West Virginia) or daily (Missouri), we can see that gaming revenue had declined even before casino closures. Revenue at casinos in the NYC area began declining in the first week of March, and by week two all markets show double-digit declines. It is worth noting that West Virginia, for example, did not report its first case of COVID-19 until March 17, while gaming revenue in the week ending March 14 had already dropped by 23%.

**Table 2: Early March Trends (YoY)**

	Yonkers VLT	Aqueduct VLT	Upstate NY VLTs	NY Casinos	Missouri	WV*
Week One	-4.9%	-5.9%	1.3%	19.0%	6.2%	3.7%
Week Two	-42.5%	-30.8%	-20.1%	-31.8%	-15.7%	-23.2%
Total	-21.8%	-18.5%	-9.4%	-8.4%	-5.0%	-10.5%

Source: The Innovation Group. Notes: \*Machines only; Yonkers reflects 13 days of operation, comparison is on average daily win.

## Tribal Gaming Revenue Trends

Gaming revenue growth at tribal casinos has been even stronger, according to fiscal year data from the National Indian Gaming Commission (NIGC; 2018 is the last year available). The NIGC reports tribal revenue by regional office. Total tribal gaming revenue exceeded \$33.7 billion in FY 2018.

Table 3: Tribal Gaming Revenue by NIGC Region (FYs)

	2014	2015	2016	2017	2018	2018 Revenue (MMs)
Portland	0.83%	3.25%	5.14%	6.50%	8.25%	\$3,663
Sacramento	4.37%	7.99%	6.34%	7.34%	3.15%	\$9,279
Phoenix	-1.14%	3.70%	4.43%	3.61%	3.41%	\$3,141
St. Paul	-1.47%	3.29%	1.14%	1.34%	4.33%	\$5,164
Tulsa	1.84%	6.54%	4.02%	4.19%	3.14%	\$2,466
OK City	7.54%	6.69%	5.75%	2.07%	7.28%	\$2,480
Washington DC	0.31%	3.26%	3.82%	1.00%	2.62%	\$7,525
<b>Total</b>	<b>1.53%</b>	<b>5.00%</b>	<b>4.40%</b>	<b>3.87%</b>	<b>4.06%</b>	<b>\$33,720</b>

Source: NIGC; The Innovation Group

**Portland:** Alaska, Idaho, Oregon, Washington

**Sacramento:** California, Northern Nevada

**Phoenix:** Arizona, Colorado, New Mexico, Southern Nevada

**St. Paul:** Iowa, Michigan, Minnesota, Montana, North Dakota, Nebraska, South Dakota, Wisconsin, Wyoming

**Tulsa:** Kansas, East OK

**OK City:** West OK, Texas

**DC:** Alabama, Connecticut, Florida, Louisiana, Mississippi, North Carolina, New York

## Employment, Income and GDP Trends

The following three tables show employment, income and GDP trends by state. Median income data by state is only available through 2018.

Employment has generally shown steady growth, although among gaming states Louisiana, Maine, Mississippi and Wisconsin have experienced slight declines in the last year or two. Real median household income change has been highly variable among states, with some states showing a decline in real income from 2015. GDP growth has also been variable, but all states had real growth in 2018 and 2019. In general, income growth has not kept pace with GDP growth; for example, nationally real income only grew 1.8% annually from 2015 to 2018, while GDP increased 2.4% in 2017 and 2.7% in 2018.

**Table 4: Employment Trends and 2019 Employment**

	2016	2017	2018	2019	2019 Employment
Alabama	1.2%	1.7%	1.9%	2.0%	2,174,483
Alaska	-0.8%	-0.8%	-1.4%	-1.1%	326,430
Arizona	3.1%	3.2%	3.2%	3.8%	3,384,504
Arkansas	1.7%	0.8%	0.5%	0.8%	1,314,290
California	1.8%	1.5%	1.1%	0.9%	18,627,378
Colorado	3.0%	3.8%	2.8%	2.6%	3,062,098
Connecticut	0.8%	0.8%	0.8%	1.1%	1,842,164
D.C.	2.4%	1.6%	1.3%	1.5%	387,482
Delaware	1.7%	1.0%	1.9%	1.1%	468,844
Florida	2.9%	3.3%	1.8%	2.1%	10,016,060
Georgia	3.7%	3.5%	1.4%	1.1%	4,935,310
Hawaii	2.0%	0.6%	-1.3%	-1.7%	646,973
Idaho	2.9%	3.0%	3.1%	2.9%	856,245
Illinois	0.7%	0.0%	0.4%	0.1%	6,190,757
Indiana	2.3%	1.1%	1.5%	0.3%	3,275,056
Iowa	-0.3%	-0.5%	1.6%	2.7%	1,691,016
Kansas	-0.3%	-0.1%	0.5%	0.7%	1,439,563
Kentucky	1.9%	2.1%	0.8%	0.8%	1,983,577
Louisiana	-1.4%	0.2%	0.3%	-0.4%	1,994,285
Maine	1.8%	1.4%	-0.1%	-0.2%	671,759
Maryland	1.5%	1.4%	0.8%	1.6%	3,143,967
Massachusetts	1.8%	2.1%	3.0%	1.3%	3,706,556
Michigan	2.3%	1.1%	1.0%	0.6%	4,735,826
Minnesota	1.0%	1.2%	0.9%	0.9%	3,009,156
Mississippi	1.7%	0.7%	-0.4%	-0.1%	1,206,892
Missouri	0.7%	0.3%	0.3%	0.8%	2,981,688
Montana	1.0%	0.8%	0.9%	1.0%	514,917
Nebraska	0.2%	0.4%	1.1%	1.0%	1,003,680
Nevada	2.4%	3.2%	3.6%	3.2%	1,482,476
New Hampshire	1.3%	0.6%	1.2%	1.5%	754,054
New Jersey	0.6%	-0.1%	0.0%	1.9%	4,333,333
New Mexico	0.1%	0.6%	1.4%	1.8%	908,166
New York	0.4%	0.1%	0.3%	0.1%	9,137,551
North Carolina	2.6%	2.2%	1.5%	2.0%	4,883,875
North Dakota	-0.4%	-0.2%	-1.4%	0.2%	394,024
Ohio	0.7%	0.7%	0.5%	0.8%	5,563,572
Oklahoma	-0.4%	0.8%	1.1%	0.2%	1,780,551
Oregon	4.4%	2.8%	0.5%	0.6%	2,025,300
Pennsylvania	0.5%	0.2%	0.6%	0.9%	6,207,627
Rhode Island	0.6%	0.8%	0.7%	0.6%	535,768
South Carolina	2.1%	1.4%	2.1%	2.2%	2,308,362
South Dakota	0.8%	0.5%	0.9%	0.7%	448,713
Tennessee	3.2%	3.0%	2.4%	2.9%	3,231,501
Texas	1.7%	2.1%	2.3%	2.0%	13,551,791
Utah	3.3%	3.0%	1.7%	2.9%	1,565,782
Vermont	0.4%	0.6%	0.3%	-0.7%	334,070
Virginia	1.0%	2.0%	1.4%	1.9%	4,289,132
Washington	3.1%	2.8%	2.4%	3.0%	3,747,713
West Virginia	0.8%	0.5%	0.8%	1.8%	757,852
Wisconsin	1.6%	1.1%	-0.2%	-0.8%	3,001,215
Wyoming	-2.3%	-1.2%	-0.3%	0.6%	281,730
<b>National</b>	<b>1.7%</b>	<b>1.3%</b>	<b>1.6%</b>	<b>1.1%</b>	<b>157,538,000</b>

Source: U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics (LAUS); TIG



Table 5: Real Median Income (2018 dollars)

	2015	2016	2017	2018	CAGR
Alabama	\$47,175	\$49,412	\$52,105	\$49,936	1.9%
Alaska	\$79,611	\$79,237	\$79,888	\$68,734	-4.8%
Arizona	\$55,378	\$59,750	\$61,155	\$62,283	4.0%
Arkansas	\$45,362	\$48,037	\$50,964	\$49,781	3.1%
California	\$67,448	\$69,729	\$71,745	\$70,489	1.5%
Colorado	\$70,585	\$73,841	\$76,812	\$73,034	1.1%
Connecticut	\$77,255	\$79,446	\$76,115	\$72,812	-2.0%
D.C.	\$61,216	\$60,740	\$66,545	\$65,012	2.0%
Delaware	\$74,268	\$74,276	\$83,263	\$85,750	4.9%
Florida	\$51,750	\$53,551	\$54,380	\$54,644	1.8%
Georgia	\$53,809	\$56,011	\$59,398	\$55,821	1.2%
Hawaii	\$68,379	\$75,480	\$75,393	\$80,108	5.4%
Idaho	\$54,716	\$59,189	\$60,947	\$58,728	2.4%
Illinois	\$64,032	\$64,235	\$67,577	\$70,145	3.1%
Indiana	\$55,097	\$58,697	\$60,200	\$59,892	2.8%
Iowa	\$64,500	\$61,836	\$65,014	\$68,718	2.1%
Kansas	\$58,152	\$59,446	\$58,287	\$63,938	3.2%
Kentucky	\$44,926	\$47,474	\$50,883	\$54,555	6.7%
Louisiana	\$48,673	\$44,154	\$44,627	\$49,973	0.9%
Maine	\$53,796	\$53,216	\$54,616	\$58,663	2.9%
Maryland	\$78,002	\$77,183	\$84,094	\$86,223	3.4%
Massachusetts	\$71,926	\$75,620	\$78,102	\$86,345	6.3%
Michigan	\$57,450	\$59,740	\$57,780	\$60,449	1.7%
Minnesota	\$72,847	\$73,477	\$71,681	\$71,817	-0.5%
Mississippi	\$42,435	\$43,006	\$44,336	\$42,781	0.3%
Missouri	\$62,742	\$57,569	\$57,908	\$61,726	-0.5%
Montana	\$54,474	\$59,724	\$58,806	\$57,679	1.9%
Nebraska	\$64,097	\$62,129	\$61,035	\$67,575	1.8%
Nevada	\$55,123	\$58,003	\$59,456	\$61,864	3.9%
New Hampshire	\$80,208	\$79,799	\$77,474	\$81,346	0.5%
New Jersey	\$72,452	\$71,645	\$72,977	\$74,176	0.8%
New Mexico	\$47,822	\$50,699	\$46,713	\$48,283	0.3%
New York	\$61,480	\$64,288	\$63,043	\$67,274	3.0%
North Carolina	\$53,840	\$56,259	\$50,755	\$53,369	-0.3%
North Dakota	\$60,854	\$62,977	\$61,634	\$66,505	3.0%
Ohio	\$56,494	\$56,490	\$62,167	\$61,633	2.9%
Oklahoma	\$49,897	\$53,307	\$53,147	\$54,434	2.9%
Oregon	\$64,478	\$61,879	\$64,021	\$69,165	2.4%
Pennsylvania	\$64,006	\$63,809	\$62,779	\$64,524	0.3%
Rhode Island	\$59,038	\$64,383	\$66,995	\$62,266	1.8%
South Carolina	\$49,137	\$56,858	\$55,866	\$57,444	5.3%
South Dakota	\$58,364	\$60,116	\$58,301	\$59,463	0.6%
Tennessee	\$50,165	\$53,727	\$56,654	\$56,060	3.8%
Texas	\$59,856	\$60,844	\$61,557	\$59,785	0.0%
Utah	\$70,227	\$70,613	\$71,490	\$77,067	3.1%
Vermont	\$63,058	\$63,660	\$65,234	\$70,066	3.6%
Virginia	\$65,169	\$69,535	\$72,537	\$77,151	5.8%
Washington	\$71,271	\$73,573	\$73,284	\$79,726	3.8%
West Virginia	\$45,389	\$46,412	\$48,102	\$50,573	3.7%
Wisconsin	\$58,745	\$62,593	\$65,029	\$62,629	2.2%
Wyoming	\$64,575	\$60,513	\$60,987	\$62,539	-1.1%
<b>National</b>	<b>\$59,901</b>	<b>\$61,779</b>	<b>\$62,626</b>	<b>\$63,179</b>	<b>1.8%</b>

Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplements: TIG.

**Table 6: Percent Change in Real Gross Domestic Product (GDP) by State**

	2016	2017	2018	2019
Alabama	0.7	1.2	2.8	2.3
Alaska	-2.0	0.0	0.7	2.5
Arizona	3.2	3.5	4.1	3.1
Arkansas	0.6	0.7	1.7	1.8
California	3.0	4.4	4.3	2.6
Colorado	2.4	4.0	3.5	3.5
Connecticut	0.0	0.4	0.5	1.6
D.C.	2.0	1.2	2.5	1.6
Delaware	-4.2	-0.6	0.0	0.8
Florida	3.3	3.4	3.2	2.8
Georgia	3.5	3.7	2.4	2.0
Hawaii	2.2	2.3	2.4	1.0
Idaho	3.9	3.5	4.0	2.8
Illinois	0.4	0.9	2.1	1.6
Indiana	1.6	1.9	2.0	0.8
Iowa	-0.3	-0.3	2.2	0.9
Kansas	2.6	1.0	2.1	0.9
Kentucky	0.7	1.1	1.4	1.1
Louisiana	-1.8	1.4	2.6	1.3
Maine	2.2	2.2	2.2	1.9
Maryland	3.4	0.9	2.5	1.5
Massachusetts	1.7	2.5	3.1	2.5
Michigan	2.2	1.5	2.5	0.7
Minnesota	1.9	1.9	2.6	1.4
Mississippi	0.4	0.9	1.3	1.3
Missouri	-0.4	1.0	2.4	2.1
Montana	-1.4	1.7	2.6	2.1
Nebraska	0.4	2.1	0.9	0.6
Nevada	2.9	3.2	4.2	2.9
New Hampshire	1.8	1.8	2.3	2.7
New Jersey	0.9	0.7	2.2	1.5
New Mexico	0.1	0.1	2.5	3.7
New York	1.3	2.1	1.2	1.8
North Carolina	1.2	2.1	2.4	2.3
North Dakota	-7.0	0.0	3.6	2.3
Ohio	0.8	1.6	1.9	1.7
Oklahoma	-3.0	0.8	2.6	2.4
Oregon	4.7	3.8	3.8	2.7
Pennsylvania	1.3	0.6	2.6	2.3
Rhode Island	0.0	-0.2	1.2	2.7
South Carolina	2.9	3.3	2.6	3.0
South Dakota	0.5	-0.1	1.9	0.7
Tennessee	2.1	1.9	3.1	2.2
Texas	0.2	2.9	4.0	4.4
Utah	4.0	3.9	3.7	3.8
Vermont	1.6	0.1	1.2	2.5
Virginia	0.4	1.8	2.6	1.9
Washington	3.5	5.2	5.8	3.8
West Virginia	-1.2	1.5	2.3	1.0
Wisconsin	1.2	1.3	2.4	1.4
Wyoming	-4.2	-0.1	0.1	3.3
<b>National</b>	<b>1.6</b>	<b>2.4</b>	<b>2.9</b>	<b>2.3</b>

Source: U.S. Bureau of Economic Analysis, Department of Commerce; TIG.

## *Current Conditions*

### **Coronavirus Case Trends and Unemployment Claims by State**

In assessing recovery prospects by state, it is useful to examine current virus caseloads and trends as well as claims for unemployment insurance.

Table 7 show the virus caseload and testing performed per 1,000 people as of April 21, ranked by per capita caseload, along with daily average growth for the past week. There are several caveats to interpreting the data. First, conditions are changing rapidly. Several states that currently have lower per capita caseloads are experiencing high growth rates in recent days, such as Ohio, Iowa, Nebraska and North Dakota, and states hit early such as New York and Louisiana have declining growth rates. Furthermore, per capita testing ratios are highly variable. Lastly, the virus does not know state borders.

Table 8 shows unemployment insurance claims through April 11, ranked by the percentage of claims relative to the covered employment workforce in each state. Michigan and Rhode Island show the highest percentage of the covered workforce applying for unemployment, at 24%. New Hampshire has the largest increase relative to the pre-virus weekly average; weekly unemployment claims have averaged 53 times higher than the pre-virus average. Nationally, the average is 20 times higher. Florida's inefficient claims system has caused a backlog of processing and their relatively low percentage does not reflect actual unemployment conditions in the state.

The advance report for the week of April 18 shows an additional 4.3 million new claims nationally, which means that approximately 17% or one out of six workers is unemployed. Although the Department of Labor notes that the advance report is not directly comparable to claims made in prior weeks, on an order-of-magnitude basis the new claims made for the week ending April 18 would add approximately 3.0 percentage points to the unemployment percentages in Table 8, meaning that in many states one out of four workers or more have filed for unemployment.

Table 9 summarizes in alphabetical order three significant variables: per capita caseload, recent daily growth trend, and percentage of workforce filing unemployment insurance during the first four weeks of the crisis.

**Table 7: Coronavirus Case and Testing Ratios per 1,000 People**

	Total Pop 2020	Cases	Case ratio*	Tested ratio*	Daily Growth**
New York	19,519,266	250,800	12.8	33.3	3.2%
New Jersey	8,926,519	92,387	10.3	20.7	4.3%
Massachusetts	6,958,327	41,199	5.9	25.2	5.6%
Connecticut	3,567,092	20,360	5.7	18.0	5.5%
Rhode Island	1,057,759	5,716	5.4	37.2	7.8%
Louisiana	4,663,846	24,854	5.3	30.5	2.1%
District of Columbia	717,189	3,098	4.3	20.8	6.0%
Michigan	10,020,118	32,967	3.3	11.7	2.9%
Delaware	980,164	3,200	3.3	17.0	7.5%
Pennsylvania	12,817,939	34,528	2.7	13.0	4.5%
Illinois	12,690,998	33,059	2.6	12.2	5.2%
Maryland	6,076,498	14,775	2.4	12.1	5.7%
South Dakota	894,964	1,754	2.0	14.3	6.0%
Georgia	10,677,163	20,607	1.9	8.3	4.9%
Indiana	6,730,415	12,097	1.8	10.0	5.1%
Colorado	5,817,059	10,368	1.8	8.2	3.9%
Washington	7,702,023	12,282	1.6	18.3	2.0%
Mississippi	2,985,372	4,716	1.6	17.5	5.0%
Vermont	626,847	818	1.3	20.9	1.2%
Nevada	3,111,372	3,937	1.3	10.6	3.5%
Florida	21,794,397	27,127	1.2	13.0	3.7%
Ohio	11,721,003	13,725	1.2	8.0	9.5%
Alabama	4,904,805	5,668	1.2	9.9	5.3%
Iowa	3,174,127	3,641	1.1	8.7	9.7%
Virginia	8,597,973	9,630	1.1	6.8	5.8%
New Hampshire	1,365,076	1,491	1.1	11.0	4.6%
Tennessee	6,853,435	7,394	1.1	15.8	3.5%
Utah	3,241,760	3,369	1.0	22.3	4.6%
New Mexico	2,097,688	2,072	1.0	19.5	5.7%
Idaho	1,798,355	1,766	1.0	9.9	2.5%
Missouri	6,151,379	5,941	1.0	9.3	3.4%
South Carolina	5,175,593	4,608	0.9	8.2	3.8%
Nebraska	1,947,357	1,722	0.9	8.6	9.7%
North Dakota	768,860	644	0.8	19.5	9.5%
California	39,892,126	33,261	0.8	7.3	5.2%
Wisconsin	5,837,751	4,620	0.8	9.0	3.8%
Wyoming	576,531	441	0.8	12.8	6.6%
Arkansas	3,029,832	2,262	0.7	9.6	6.1%
Arizona	7,331,521	5,251	0.7	7.5	4.7%
Kentucky	4,488,567	3,192	0.7	7.4	5.4%
Oklahoma	3,966,480	2,807	0.7	11.2	3.5%
Kansas	2,915,538	2,025	0.7	6.6	4.6%
Texas	29,321,473	20,196	0.7	7.0	4.7%
Maine	1,341,555	888	0.7	11.2	2.8%
North Carolina	10,545,270	6,951	0.7	7.9	4.7%
West Virginia	1,790,813	914	0.5	14.2	4.0%
Minnesota	5,670,431	2,721	0.5	8.4	6.0%
Oregon	4,264,603	2,002	0.5	9.6	3.0%
Alaska	737,745	329	0.4	15.1	2.1%
Montana	1,076,710	439	0.4	10.4	1.2%
Hawaii	1,422,609	547	0.4	17.8	0.8%
<b>Total US</b>	<b>330,342,293</b>	<b>801,166</b>	<b>2.4</b>	<b>12.6</b>	<b>4.1%</b>

Source: CDC; iExpress; TIG. Notes: \*per 1,000 pop as of April 21; \*\*daily case growth April 14-21

**Table 8: New Unemployment Insurance Claims, Not Seasonally Adjusted**

	Avg. weekly pre-virus	Total post*	Increase factor**	% of Covered Emp.
Michigan	7,851	1,043,102	33	24%
Rhode Island	1,233	114,399	23	24%
Hawaii	1,300	145,231	28	23%
Pennsylvania	16,316	1,294,636	20	22%
New York	2,752	302,166	27	22%
Kentucky	3,014	396,024	33	21%
Georgia	7,825	855,673	27	20%
New Hampshire	588	125,232	53	19%
Washington	8,050	628,465	20	19%
Louisiana	1,902	350,112	46	18%
New Jersey	9,875	678,324	17	17%
California	45,828	2,818,944	15	16%
Massachusetts	6,754	573,335	21	16%
Ohio	7,915	856,105	27	16%
Montana	1,022	71,631	18	16%
Alaska	1,012	48,218	12	16%
Minnesota	4,320	428,261	25	15%
Maine	950	89,627	24	15%
Vermont	607	44,553	18	15%
Indiana	3,127	439,694	35	14%
Alabama	2,358	276,130	29	14%
Delaware	679	62,022	23	14%
Iowa	3,014	205,001	17	13%
South Carolina	2,863	274,021	24	13%
Idaho	1,582	95,962	15	13%
North Carolina	20,050	1,185,746	15	13%
Missouri	4,858	340,121	18	12%
Arkansas	3,621	349,247	24	12%
Wisconsin	6,754	336,788	12	12%
Oklahoma	1,844	184,685	25	12%
Maryland	3,356	300,698	22	12%
Mississippi	1,019	129,134	32	12%
Kansas	1,948	157,072	20	12%
New Mexico	824	91,129	28	11%
Arizona	1,758	134,746	19	11%
Virginia	2,879	410,762	36	11%
Illinois	10,602	634,736	15	11%
Nebraska	615	42,107	17	10%
Oregon	4,673	194,921	10	10%
North Dakota	2,965	543,805	46	10%
Tennessee	2,513	314,650	31	10%
District of Columbia	581	55,634	24	10%
Colorado	2,235	232,510	26	9%
Nevada	778	83,758	27	9%
Texas	14,443	1,021,035	18	8%
Wyoming	571	22,386	10	8%
Connecticut	3,661	125,841	9	8%
Florida	5,506	653,101	30	8%
Utah	1,271	105,777	21	7%
West Virginia	1,395	47,497	9	7%
South Dakota	259	23,059	22	6%
<b>National</b>	<b>244,288</b>	<b>20,112,435</b>	<b>21</b>	<b>14%</b>

Source: US Dept. of Labor; TIG. Notes: \*4 weeks thru April 11; \*\*Average weekly factor increase post/pre-virus

**Table 9: Coronavirus Case Ratios per 1,000 People and Unemployment Percentages**

	Case ratio*	Daily Growth**	% of Covered Emp.
Alabama	1.2	5.3%	14%
Alaska	0.4	2.1%	16%
Arizona	0.7	4.7%	11%
Arkansas	0.7	6.1%	12%
California	0.8	5.2%	16%
Colorado	1.8	3.9%	9%
Connecticut	5.7	5.5%	8%
Delaware	3.3	7.5%	14%
District of Columbia	4.3	6.0%	10%
Florida	1.2	3.7%	8%
Georgia	1.9	4.9%	20%
Hawaii	0.4	0.8%	23%
Idaho	1.0	2.5%	13%
Illinois	2.6	5.2%	11%
Indiana	1.8	5.1%	14%
Iowa	1.1	9.7%	13%
Kansas	0.7	4.6%	12%
Kentucky	0.7	5.4%	21%
Louisiana	5.3	2.1%	18%
Maine	0.7	2.8%	15%
Maryland	2.4	5.7%	12%
Massachusetts	5.9	5.6%	16%
Michigan	3.3	2.9%	24%
Minnesota	0.5	6.0%	15%
Mississippi	1.6	5.0%	12%
Missouri	1.0	3.4%	12%
Montana	0.4	1.2%	16%
Nebraska	0.9	9.7%	10%
Nevada	1.3	3.5%	9%
New Hampshire	1.1	4.6%	19%
New Jersey	10.3	4.3%	17%
New Mexico	1.0	5.7%	11%
New York	12.8	3.2%	22%
North Carolina	0.7	4.7%	13%
North Dakota	0.8	9.5%	10%
Ohio	1.2	9.5%	16%
Oklahoma	0.7	3.5%	12%
Oregon	0.5	3.0%	10%
Pennsylvania	2.7	4.5%	22%
Rhode Island	5.4	7.8%	24%
South Carolina	0.9	3.8%	13%
South Dakota	2.0	6.0%	6%
Tennessee	1.1	3.5%	10%
Texas	0.7	4.7%	8%
Utah	1.0	4.6%	7%
Vermont	1.3	1.2%	15%
Virginia	1.1	5.8%	11%
Washington	1.6	2.0%	19%
West Virginia	0.5	4.0%	7%
Wisconsin	0.8	3.8%	12%
Wyoming	0.8	6.6%	8%
<b>National</b>	<b>2.4</b>	<b>4.1%</b>	<b>14%</b>

Source: US Dept. of Labor; CDC; TIG. Notes: \*per 1,000 pop as of April 21; \*\*daily case growth April 14-21

## *Recovery Analysis*

### **Methodology and Scenarios**

Our recovery forecasts are expressed as a percentage relative to 2019 gaming revenue. We start with a Month One forecast using assumed declines in employment and income relative to 2019, as well as assumed consumer sensitivities to spending levels and lingering safety concerns. Monthly ramp ups are then applied for the first twelve months of reopening.

We apply different recovery rates and different weightings to the demand responses to the following four factors. Because of the federal relief package, income is not expected to be as heavily impacted as employment, particularly given the \$600 weekly federal boost to unemployment payments.

**Table 10: Demand Response Factors**

Employment
Income
Consumer Sentiment
Perception of Safety

We also assess a range of demand recovery scenarios, based on different assumptions for 1) the level of declines in the economy (measured as employment and income) and consumer security (based primarily on performance in the first two weeks of March as discussed in Table 2) that will have taken place by the time casinos reopen; 2) ramp up of economic recovery, and; 3) ramp up of consumer acceptance for spending and public spaces. Ramp up of economic recovery has been estimated based on an April 24 Congressional Budget Office projection that shows employment recovering to 91% of pre-virus levels by the end of 2021 (mid-range estimate).

**Table 11: Demand Response Scenarios**

	1) Baseline Decline	2) Economic Recovery	3) Consumer Acceptance Recovery
Best Case	Current Level	Quick	Quick
Mixed Ramp Up 1	Current Level	Quick	Slow
Mixed Ramp Up 2	Current Level	Slow	Quick
Worst Case	Allowance for further Decline	Slow	Slow

For the supply-side modeling, we apply different constraint sensitivities based on the following current capacity levels as expressed in win per position for 2019.

**Table 12: Social Distancing Capacity Scenarios**

Constraint Level	WPP 2019
Extreme	Above \$500
Heavy	\$350-\$500
Moderate	\$250-\$350
Low	\$150-\$250
Minimal	<\$150

## Results

In the baseline scenario (assuming current economic conditions), we estimate that on a demand basis, revenue for the **first 12 months following reopening** will decline by 17%-19% over 2019, depending upon speed of economic and consumer recovery. If employment declines by a further 10 percentage points and consumer reluctance is deepened, we estimate demand will decline by 33.5%. By Month Twelve, demand recovery is estimated at between 69% and 87% of pre-virus levels.

Table 13 shows the demand recovery estimates for national commercial revenue, which was \$43 billion in 2019.

**Table 13: UNCONSTRAINED Annualized National Commercial Casinos: Demand Recovery**

	Q1	Q2	Q3	Q4	Total	% of 2019	By Month 12
Best	\$8,320	\$9,099	\$9,238	\$9,381	\$36,038	83.1%	87.0%
Mixed 1	\$8,231	\$8,820	\$8,954	\$9,093	\$35,098	81.0%	84.3%
Mixed 2	\$8,221	\$8,789	\$8,923	\$9,061	\$34,993	80.7%	84.0%
Worst	\$6,882	\$7,202	\$7,311	\$7,424	\$28,819	66.5%	68.9%

Source: TIG

**Revenue recovery would be significantly lower than the demand potential as long as social distancing measures are in effect on the casino floor.** We estimate a casino with extremely high utilization pre-virus would reach pre-virus levels of only 33%, while a casino with minimal utilization would reach 73%, or an additional drop of approximately ten percentage points off the demand potential. These estimates are based on closing three of every five gaming positions, effectively. If wider spacing is required, the recovery would naturally be lower.

On a national basis, given the mixture of capacity levels, we would estimate that results would fall in the Moderate range as shown in Table 14.



**Table 14: CONSTRAINED Annualized National Commercial Casinos: Supply Constraints**

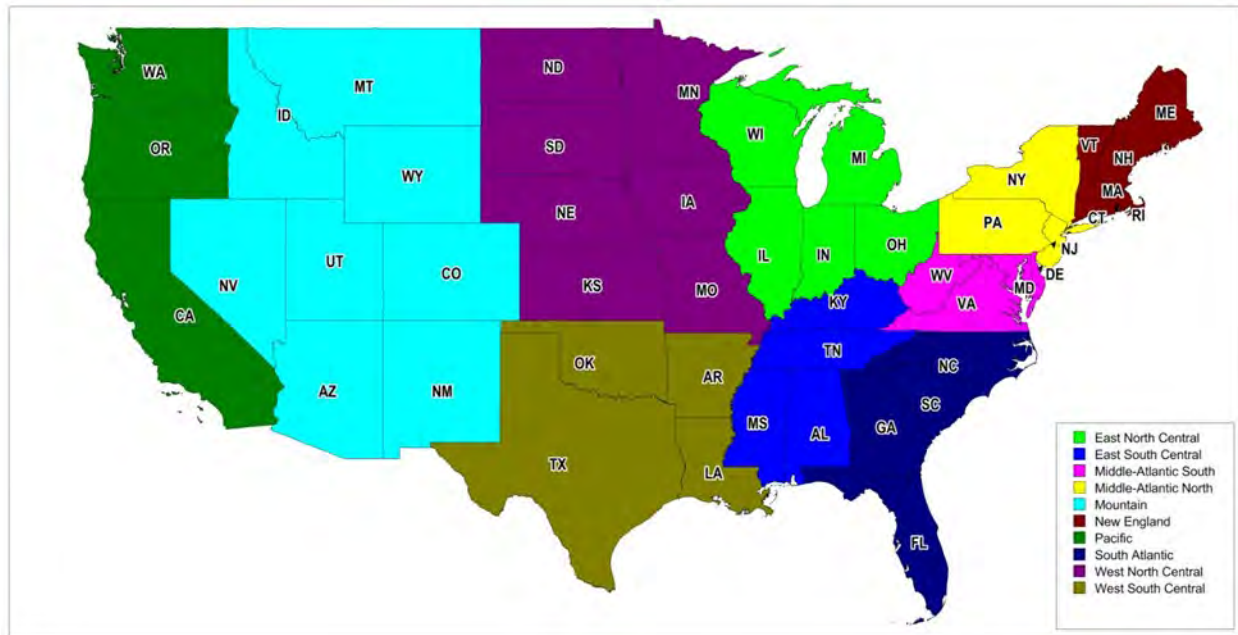
	Q1	Q2	Q3	Q4	Total	% of 2019	By Month 12
Minimal	\$7,322	\$8,008	\$8,129	\$8,255	\$31,714	73.2%	76.6%
Low	\$6,323	\$6,916	\$7,021	\$7,129	\$27,389	63.2%	66.1%
Moderate	\$5,325	\$5,824	\$5,912	\$6,004	\$23,065	53.2%	55.7%
Heavy	\$4,326	\$4,732	\$4,804	\$4,878	\$18,740	43.2%	45.2%
Extreme	\$3,328	\$3,640	\$3,695	\$3,752	\$14,415	33.3%	34.8%

Source: TIG

## Results by Region

We also present percentage recovery estimates by US Census regions, which are depicted in the following map.

**Figure 1: US Census Regions**



Variations among regions result from differences in unemployment claims and virus caseload. The estimates apply equally to commercial and tribal casinos.

**Table 15: Annualized Regional Recovery Estimates (Relative to 2019)**

	East-North Central	East-South Central	Mid-Atlantic North	Mid-Atlantic South	Mountain	New England	Pacific	South Atlantic	West-North Central	West-South Central
<b>Unconstrained Demand</b>										
Best	80.4%	82.0%	74.9%	83.2%	85.1%	79.4%	82.9%	83.0%	82.5%	83.3%
Mixed 1	77.6%	79.4%	71.8%	81.1%	83.3%	76.6%	80.5%	80.6%	80.1%	81.1%
Mixed 2	77.5%	79.2%	71.6%	80.8%	83.1%	76.5%	80.3%	80.4%	79.9%	80.8%
Worst	62.7%	64.2%	59.8%	66.9%	68.8%	62.5%	65.0%	65.5%	65.0%	66.4%
<b>Constrained: Social Distancing</b>										
Minimal	70.7%	72.1%	65.9%	73.2%	74.9%	69.9%	73.0%	73.0%	72.6%	73.3%
Low	61.1%	62.3%	56.9%	63.2%	64.7%	60.4%	63.0%	63.0%	62.7%	63.3%
Moderate	51.4%	52.5%	47.9%	53.2%	54.5%	50.8%	53.1%	53.1%	52.8%	53.3%
Heavy	41.8%	42.6%	38.9%	43.3%	44.3%	41.3%	43.1%	43.1%	42.9%	43.3%
Extreme	32.2%	32.8%	29.9%	33.3%	34.0%	31.8%	33.2%	33.2%	33.0%	33.3%

Source: TIG

## Las Vegas International Visitation

The analyses above cover domestic markets. Las Vegas, particularly the Strip, is also sensitive to international visitation, which pre-virus accounted for 14% of total visitation. Overseas countries accounted for more than half of international visitation, with 47% coming from Canada and Mexico.

With the US currently being the epicenter of the pandemic, there are likely to be international consumer concerns for traveling to Las Vegas even after travel restrictions are lifted. However, the industry has been consistent in its messaging about safety, sanitation, and science, which should set a solid foundation for reassuring international markets once Las Vegas reopens.

Another variable for international recovery to Las Vegas is the status of the virus in the home countries. Some of the more significant LV markets such as China, Germany and South Korea are reporting very promising trends, while others such as the United Kingdom (the number one overseas market by visitor volume) are still trending upward.

# INTERNATIONAL MARKETS

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## Canada

Casinos (and land-based lottery and VLT's operations) in Canada were generally shut down due to the coronavirus by mid-March, with most provinces and First Nations aligned in halting operations the week of March 16. This pattern was consistent with many casino closures in the United States and coincided with tighter controls at the US-Canada border, further limiting the ability for players to migrate between cross-border markets such as Windsor and Detroit or Niagara Falls and Buffalo.

The reporting of gaming revenue across Canada tends to lag United States reporting, with a myriad of government and private operations, and inconsistent formats for jurisdictional control. Casino gaming revenue did exceed CA\$7.5 billion in 2017, with more than double that amount when taking lotteries, VLT's and pari-mutuel racing into consideration, but excluding online gaming. Traditional casino revenue for Canada as a whole has shown a year-over-year decline in some recent some years as additional forms of gaming have gained favor. However, in Ontario, where over half of Canadian casino gaming revenue is generated, revenue increased from approximately CA\$3.8 billion to CA\$3.9 billion between fiscal years 2017/18 and 2018/19.

Although the per-capita virus caseload in Canada is less than half that of the United States (1.4 per thousand versus 3.2), the rise in unemployment is highly consistent with the US. Furthermore, while public reporting of gaming revenue in Canada is very limited, data from OpenTable shows that declining restaurant trends during the first two weeks of March were nearly identical between the two countries.

Given the relatively consistent response between US States and Canadian Provinces in their response to COVID-19, we would expect similar reopening patterns and regulatory criteria for social distancing and related measures. Thus, we would also anticipate a similar trajectory for recovery, within the ranges forecast for the United States in this analysis. More detailed projections for Canada will be possible with 2019 data as available and more information on specific reopening criteria.

## Asia and Oceania

Unlike the domestic US market, most markets in the Asia Pacific region rely on international visitation and therefore, recovery of those markets can be highly variable depending upon entry/immigration requirements (including mandatory health quarantine), travel/visa restrictions, and transportation logistics/capacity, in addition to the similar demand and supply factors that were discussed earlier regarding the domestic US market. What we have observed in some Asian markets suggests that a stronger recovery is likely to be led by the VIP segment due to factors such as higher gaming budgets, smaller number of travelers, and more flexible itineraries and arrangements. Nevertheless, the potential possibility of new outbreaks, especially by "imported" cases of infection, as well as the associated precautionary measures and public concerns, may hinder or slow down the recovery process.

Macau confirmed its first case of COVID-19 on January 22, 2020. Two weeks later, on February 4, the government issued a mandatory 15-day closure of all 41 casinos in the territory to further prevent its spread. After the closure, casinos were permitted to reopen with new, stricter safety measures in place. These precautions, which can be good exemplary measures for casinos in other jurisdictions around the world, included body temperature checks for all visitors and workers, a requirement that all guests and staff wear safety masks, and new casino floor operations restrictions – including a certain minimum space between tables in use, safe density of seating for players at gaming tables, and a cap on the number of operating tables in a given gaming area.

Reopening the casinos, however, did not result in a significant rebound, although data from the first few weeks in March did illustrate that the VIP segment had been stronger than Mass with high hold. Later in the month, Macau further tightened its entry controls due to an increased number of imported cases of infection. The new measure, effective on March 25, imposes a ban on entry for all international visitors, except those from Hong Kong, Taiwan, and Mainland China who have not travelled to any foreign country in the past 14 days. Residents of these three locations are allowed to enter Macau, but will still need to go into a compulsory 14-day quarantine in a designated hotel. As a result, with more than 90% of its guest base coming from overseas, visitation to Macau had a year-over-year slump of 93.7% for the month.

On the bright side, it is worth noting that market intelligence suggests the restrictions may begin to be gradually eased over the following few weeks and hopefully to be lifted at some point in June. So far, Macau has not had any new infected case for more than three weeks in a row. The neighboring provinces in Southeastern China that are among the key feeders to Macau, such as Guangdong and Fujian, have been recovering from the COVID-19 lockdown at a much higher pace than the average in Mainland China, boding well for Macau’s gaming industry. In 2019, approximately 45% of all visits to Macau by mainland Chinese were by people residing in Guangdong, and it is estimated that as much as 30% of Macau’s Mass GGR and about 15% of VIP GGR came from Guangdong players. Furthermore, the Macau government has been asking the Central Government to restart and to expand the Individual Visit Scheme (IVS) program for mainland visitors to cover new feeder cities there.

The following table illustrates Macau’s monthly gross gaming revenue (GGR) in the 1<sup>st</sup> quarter of 2020 and 2019, according to the Macau Gaming Inspection and Coordination Bureau (DICJ). The quarterly GGR in 2020 stood at only US\$3.8 billion versus US\$9.5 billion in 2019, representing a YoY 60% contraction that can arguably be attributed entirely to the impact of COVID-19.

**Table 16: Monthly GGR 1st Quarter 2020 v. 2019 (\$US Mil.)**

	2020	2019	YoY Change
January	\$2,760.8	\$3,112.2	-11.3%
February	\$387.3	\$3,165.6	-87.8%
March	\$656.0	\$3,224.2	-79.7%
<b>Q1 Total</b>	<b>\$3,804.1</b>	<b>\$9,502.0</b>	<b>-60.0%</b>

Source: Macau Gaming Inspection Coordination Bureau (DICJ), 1 MOP = 0.12 USD

More broadly, from prominent large-scale integrated resorts in top destinations to regional gaming properties in emerging markets, casinos across the Asia Pacific region have been substantially impacted by COVID-19.

Gaming operations at both Marina Bay Sands and Resorts World Sentosa in Singapore were suspended on April 7, in line with a government order, and the suspension since then has been extended through May to curb the recent rise in infected cases. The Philippine Amusement and Gaming Corporation (PAGCOR) has suspended all gaming operations nationwide since March, including the Philippine Offshore Gaming Operators (POGO) online gaming activities. The suspension remains effective until at least mid-May. Relatively high incidence in South Korea has also driven an extended closure of Kangwon Land Casino, the only Korean casino where locals are permitted to gamble. All other major casinos in South Korea also suspended operations, at least for some period of time if not still effective, as a measure to combat the spread of virus. In line with government orders, the various casino operators in other emerging gaming markets, such as Cambodia, Vietnam, and Nepal, have all adopted similar precautionary measures. In Oceania, gaming operations at venues in both Australia and New Zealand have been suspended since late March, but the New Zealand government adjusted the control status to a lower level on April 27, although its tourism, hospitality and aviation industries are still facing some grim issues.

While it remains unclear when the challenging environment will ease so that business volume will get back to pre-pandemic levels, operators in each jurisdiction in the Asia Pacific region will need to respond to distinct circumstances including, but not limited to, demand and supply factors, immigration requirements, travel restrictions, and transportation capacity that comprise a much-changed operating landscape. The Innovation Group has been closely monitoring the dynamics, developing a variety of models and tools, and is ready to assist in the industry's comeback process.

## Europe

As of April 28th, Europe represented the hardest hit continent in terms of the total number of COVID-19 cases with roughly 1.25 million. The spread and corresponding response to COVID-19 among European nations has been mixed. The outbreak in Italy and resulting lockdown has been widely publicized. On the opposite end of the spectrum and less reported on, Denmark was the second European nation to announce a lockdown, after Italy, and did so before reporting any COVID-19 related deaths. As a result of this early action, Denmark became one of the first European countries to slowly reopen its economy, with childcare centers and primary schools opening on April 14th and other small businesses opening on April 20th.

The reopening of land-based European casinos remains unclear as some countries have yet to even release official countrywide economic reopening plans. An additional challenge for the land-based casino recovery will be border entry and movement between European nations—with some reports suggesting that Europe's Schengen Zone may keep its external borders shut until September. While this may permit travel between European nations, international travel to the European nations will be non-existent if this occurs.

## Latin America and the Caribbean

The economic downturn caused by COVID-19 in Latin America and the Caribbean is expected to result in one of the worst regional declines in the world. The United Nation's Economic Commission for Latin America and the Caribbean (ECLAC) projects the GDP of Latin America and the Caribbean to decline by roughly 5.3% in 2020, this represents the largest annual GDP contraction for the region since the Great Depression, when GDP declined by 5.0%.

As these nations begin to rebuild their economies and workforces after the pandemic, we believe countries that have previously or are currently considering gaming legalization—such as Brazil—will be incentivized to accelerate legislation in order to further take advantage of tourism recovery trends and create much needed employment opportunities for local populations. Similarly, we believe other countries that have yet to explore gaming legalization—such as smaller island nations—will explore the possibility of gaming for the same reasons.

## ONLINE GAMING AND SPORTS BETTING

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While brick-and-mortar gaming has been the focal point of the US gaming industry, online gaming and sports betting have become more prominent over the last decade and are a main source of gaming revenue in other regions such as Europe. With the suspension of all major worldwide sports, sports betting revenues are at or near zero. Some US sports betting operators have begun offering lines on Nicaraguan soccer, Japanese sumo wrestling, and Russian table tennis to provide at least some options to bettors. Forecasting recovery in the sports betting realm is uncertain due to the impact that the coronavirus is having on sports itself. If leagues come roaring back to life, business-as-usual, we expect brick-and-mortar impacts to be lower than overall brick-and-mortar casino impacts, as sports betting by its nature is more transactional. And we expect latent online sports betting demand to fully recover, even gaining some share from the declining brick-and-mortar segment. Overall, we expect a full and generally speedy recovery for sports betting, with some mild changes to the sports betting experience due to social distancing, e.g., increased space between seating, self-service terminals, and ticket counters.

Online casino, on the other hand, has experienced an uptick. In operator interviews, one international operator indicated that there has been growth in both desktop and mobile channels, with considerable decreases in cost per acquisition. Another has seen considerable increases in both social and real-money platforms, with real-money gains coming from bricks-and-mortar customers and the (real-money) gains from social gaming increases coming from established customers making purchases for the first time. We expect to see iGaming growth from a mix of latent brick-and-mortar demand converting to online coupled with new demand from an audience that is now incredibly captive, many of their former entertainment options currently closed. With this more engaged audience, social distancing either by choice or by mandate, and with the virus squeezing state budgets in ways that far exceed the loss of gaming tax revenue, expanded iGaming may become an attractive possibility in new jurisdictions. Already, Connecticut tribes, mayors, and local governments have petitioned the governor to sign an executive order allowing temporary online gambling. While these efforts were denied, this may be indicative of broader trends.

Currently in the US, the only states to have operational online casinos are Pennsylvania, New Jersey, and Delaware. Those states all reported gains in iGaming revenue in March. To normalize calendar and market effects, we developed and compared actuals to an expected iGaming revenue forecast for each market absent a coronavirus impact by applying a 6-month average year-over-year growth rate to March 2019 total gaming revenues and applying the Feb 2020 iGaming percent of total revenue for each market. This yields an average iGaming incremental revenue of 15-16%. While this is strong growth within the sector and provides reasons for optimism, these gains account for only 2%-3% of the bricks-and-mortar losses versus our March 2020 forecasted casino revenues.

**Table 17: March 2020 Incremental iGaming Revenue**

	Estimated Incremental Revenue (\$)	Estimated Incremental Revenue (%)	Percent of B&M Casino Declines Displaced
Delaware	\$72,402	16.4%	0.4%
New Jersey	\$9,838,253	17.9%	6.7%
Pennsylvania	\$2,280,737	10.4%	1.2%
<b>Average</b>		<b>14.9%</b>	<b>2.8%</b>
<b>Weighted Average</b>		<b>15.7%</b>	<b>2.1%</b>

Source: DE Lottery, State of NJ Division of Gaming Enforcement, PA Gaming Control Board, TIG

This phenomenon is worldwide. Weekly Google searches for ‘online slots’ across the globe have grown by more than 300% from the beginning of March to the end. Regulators in Europe are working through problem gaming concerns due to online gaming growth: Sweden’s gaming regulator, Spelinspektionen, reported that the first two weeks of the pandemic yielded a 33% uptick in online casino registrations, and Spain has limited iGaming companies’ ability to advertise during the country’s lockdown. Operators are reporting the same trends in their financials: multinational iGaming corporation The Stars Group issued a 1Q 2020 revenue report showing vastly higher earnings in their gaming (iPoker and iCasino) business, more than offsetting declines in their significant global sports wagering business. Net growth was 27% in Q1, and daily revenues were up 33% year-over-year in the first two weeks of Q2.

While a portion of the online casino revenue growth is likely temporary, we - along with the operators we surveyed - believe that the increased trial of iGaming platforms during this time will provide sustained growth in customer bases and usage. This, in turn, may help bolster the case in jurisdictions still reluctant to adopt interactive casino gaming.



## DISCLAIMER

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Certain information included in this report contains forward-looking estimates, projections and/or statements. The Innovation Group has based these projections, estimates and/or statements on our current expectations about future events. These forward-looking items include statements that reflect our existing beliefs and knowledge regarding the operating environment, existing trends, existing plans, objectives, goals, expectations, anticipations, results of operations, future performance and business plans.

Further, statements that include the words "may," "could," "should," "would," "believe," "expect," "anticipate," "estimate," "intend," "plan," "project," or other words or expressions of similar meaning have been utilized. These statements reflect our judgment on the date they are made and we undertake no duty to update such statements in the future.

Although we believe that the expectations in these reports are reasonable, any or all of the estimates or projections in this report may prove to be incorrect. To the extent possible, we have attempted to verify and confirm estimates and assumptions used in this analysis. However, some assumptions inevitably will not materialize as a result of inaccurate assumptions or as a consequence of known or unknown risks and uncertainties and unanticipated events and circumstances, which may occur. Consequently, actual results achieved during the period covered by our analysis will vary from our estimates and the variations may be material. As such, The Innovation Group accepts no liability in relation to the estimates provided herein.