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SCOPE OF STUDY

Christiansen Capital Advisors, LLC ("CCA") has been retained by the Illinois Gaming Board ("IGB" or "the Board") to review, analyze, and develop a comprehensive methodology for calculating undue economic concentration within the video gaming industry as referenced in 230 ILCS 40/25. Furthermore, the IGB requires assistance to review the internal IGB methodology regarding economic concentration, market share, and competition and use that information to develop a replicable comprehensive methodology for measuring undue economic concentration as defined in the Video Gaming Act ("VGA") 230 ILCS 40/25, IGB rules Section 1800.440, and Section 1800.340 (a)(6) and (d)(1).

Specifically, CCA received information from the IGB Audit unit regarding market share and economic concentration in video gaming going back to 2018. CCA evaluated and analyzed the IGB's Audit team's work on market share, competition, and undue economic concentration in video gaming. Upon completion of this evaluation CCA determined that a wider historical perspective on the evolution of the market share of video gaming in Illinois would be valuable context, although it was outside the original scope requested by IGB. CCA reconstructed the database of video gaming data regarding market share, competition, and undue economic concentration going back to the inception of video gaming in 2012.

Using this reconstructed database CCA produced the following report, which addresses the specific IGB requests enumerated below:

- 1. CCA reviewed, assessed, and validated IGB data compilation and reporting methodology for the criteria outlined in Rule 1800.440 (c) (1). When reviewing the IGB methodology, CCA considered the following:
 - i. IGB's interpretation of the "share of the market presently owned or controlled" per Section 1800.440 (c) (1) as a valid reporting structure to use and/or recommend a more effective criteria or calculation.
 - ii. IGB's interpretation of "defined geographic radius" in the compilation and reporting of undue economic concentration data as a valid framework and/or recommend a more effective criteria or calculation.
- 2. CCA reviewed and validated of the Herfindahl-Hirschman Index ("HHI") and compared it with other known analyses.
- 3. CCA identified and recommended a specific hierarchy of the 11 criteria listed in Rule 1800.440 under (c) (1) through (11), ordered from most influential to least to assist the Board in evaluating undue economic concentration impacts for video gaming transactions, licensure/renewal, and transfers of ownership.

- 4. CCA considered whether there should be a specific threshold or maximum percentage of the market, either across the State, or within defined geographic regions, a Terminal Operator would potentially own or control to constitute undue economic concentration.
- 5. CCA evaluated the effect sales transactions involving large groups of establishments (i.e., video café groups/chains) could have on economic concentration and considered whether such factors should be integrated into a methodology for determining undue economic concentration.
- 6. CCA evaluated how casino owner licensees and/or sports wagering licensees that also hold video gaming Terminal Operator licenses may impact the economic concentration analysis described above and propose a methodology and criteria for measuring and addressing such impacts on undue economic concentration within the video gaming market.
- 7. CCA reviewed the current undue economic concentration rules and in the last section of this report CCA recommends several methodological and procedural improvements and we opine on whether the Board should promulgate additional rules.

ILLINOIS VGT MARKET OVERVIEW

VGT Rules and Regulations

Video Gaming in Illinois was legalized by Public Act 96-0034, which was signed into law by Governor Pat Quinn on July 13, 2009. The purpose of Public Act 96-0034 was to increase State revenue to complete new planned capital projects. Tax revenue derived from VGTs are contributed to the State's Capital Projects Fund. Pursuant to this law video gaming in Illinois is governed by the following provisions:

Licensing

- Each Video Gaming Terminal Manufacturer, Distributor, Supplier, Terminal Operator, Technician, Handler, and Establishment must be licensed by the Illinois Gaming Board.
- Terminal Operators may not be licensed as a Video Gaming Terminal Manufacturer or Distributor or own, manage or control a licensed establishment, licensed truck-stop establishment, licensed fraternal establishment, or licensed veterans' establishment.
- Terminal Operators are restricted to contracting with Video Gaming Terminal Distributors and licensed establishment, licensed truck-stop establishment, licensed fraternal establishment, or licensed veterans' establishment.
- No person may be granted a license as a Manufacturer, Distributor, Supplier, Terminal Operator, Handler, or Establishment if the Board concludes:
 - Person's background (criminal record, reputation, business association, etc.) poses a threat to the public interest or to the integrity of video gaming;
 - Person creates or enhances the danger of unsuitable, unfair, or illegal practices in the conduct of video gaming;
 - Person presents questionable business practices and financial arrangements incidental to the conduct of video gaming.
- Each license applicant must demonstrate their suitability for licensure, submit to a background investigation, and disclose the identity of each person, association, trust, or corporation which has a pecuniary stake of greater than 1% in the operation for which the license is sought.
- Each Distributor and Terminal Operator (or person with a substantial interest therein) must be an Illinois resident, or have conducted business in the state for at least 48 months prior to July 13, 2009.
- Each establishment seeking a license must possess a liquor license at the time of application and all times thereafter.
- Establishments are ineligible for licensing if they are located within:
 - (i) 1,000 feet of a facility operated by an organizational licensee, an intertrack wagering location licensee under the Illinois Horse Racing Act of 1975 or a home dock of a riverboat licensed under the Riverboat Gambling Act,¹
 - (ii) or within 100 feet of a school or place of worship; provided, however, these
 restrictions do not apply if a facility operated by an organization licensee, a school or
 a place or worship moves to or is established within the restricted area after the

¹ Off Track Betting facilities (OTBs), however, are eligible for licensing.

Establishment becomes licensed under the Act or a school or place of worship moves to or is established after the Establishment obtained its original liquor license.

• Licenses may not be assigned or transferred.

Application and Renewal Fees

- A non-refundable application fee is due at the time the application is filed with the Board according to the following schedule:
 - \$5,000 for a Manufacturer, Distributor, or Terminal Operator
 - \$2,500 for a Supplier
 - \$100 for a Technician or Establishment
 - \$50 for a Terminal Handler

Requirements of Licensed Establishments

- Six types of Establishments are allowed to house VGTs:
 - Licensed Establishments: a licensed retail establishment where alcoholic liquor is served for consumption on the premises.
 - Licensed Fraternal Establishment: a qualified fraternal organization that derives its charter from a national fraternal organization.
 - Licensed Veterans Establishment: a qualified veterans' organization that derives its charter from a national veterans' organization.
 - Licensed Truck Stop Establishment: a facility that is at least 3 acres with a convenience store and with separate diesel islands for fueling, that sells more than 10,000 gallons of diesel or biodiesel fuel per month and with parking for commercial motor vehicles.
 - Large Truck Stop Establishments: a facility that meets all the requirements for a regular truck stop, plus it must be within three road miles of a freeway interchange and sell an average of 50,000 gallons or more of diesel or biodiesel fuel a month. Large truck stops can have up to ten VGTs.
 - The Illinois State Fair is allowed 50 VGTs and the DuQuoin State Fair can have 30.
- Prior to a VGT being placed in an Establishment, the Establishment must enter into a written Use Agreement with a Terminal Operator.
- An Establishment other than a Large Truck Stop or State Fairs may operate up to 6 VGTs at any one time on its premises.
- VGTs must be placed in an area that is restricted to persons over 21 years of age.
- VGTs may only be operated during an Establishment's legal hours for serving alcohol.

Requirements of Terminal Operators

- A Terminal Operator may not give anything of value, including but not limited to a loan or financing arrangement to a Licensed Establishment to incentivize or induce the Establishment to locate a Terminal in that Establishment.
- A Terminal Operator must maintain insurance on any VGT it places in an Establishment in an amount set by the Board.

Video Gaming Terminals

- Each VGT must be licensed prior to placement in an Establishment. Once licensed, an annual renewal fee must be paid in an amount to be established by the Board but not more than \$100 per VGT. Possession of an unlicensed video gaming terminal is a felony.
 - Municipalities with a population under 25,000 (thus not qualifying for Home Rule) may impose an additional fee of up to \$25 per VGT per year.
- Every VGT must be tested and approved. The Act enumerates sixteen (16) criteria that each VGT must meet, subject to increase by the Board.
- VGTs may not directly dispense coins, cash, or tokens. VGTs may only dispense receipt tickets. Each ticket must indicate (i) the total amount of credits, (ii) the cash award, (iii) the time of day, in a 24-hour format, (iv) the date, (v) the VGT serial number, (vi) the sequential number of the ticket and (vii) an encrypted validation number from which the validity of the prize can be determined.
- The maximum wager played per hand may not exceed \$4, and no cash award for the maximum wager may exceed \$1,199. Upon approval of IGB, video gaming sites can implement "In-location Bonus Jackpots." These are cumulative, or progressive, jackpots which can build to prizes as high as \$10,000.
- The odds of winning each video game must be posted on or near each VGT.
- VGTs must theoretically pay out not less than 80% of amounts played over the expected life of the VGT.
- A Licensed Technician may service, maintain, or repair a VGT but only a Licensed Terminal Handler may possess or control a VGT or have access to the inner workings of a VGT.
- VGTs must be linked to a central communications system that allows the Board to audit and deactivate the VGTs.

Net Terminal Income

- Net Terminal Income ("NTI") equals all monies put into a Terminal minus credits paid out to players
- A 34% gaming tax is imposed on NTI, and the Establishment and Terminal Operator must split the remaining NTI, after sharing certain costs and expenses, 50/50.
 - Of the tax collected, one-sixth (or 5.67% of NTI) goes to the unit of local government where the machine is located. The remaining five sixths (or 28.33% of NTI) is paid into the Capital Projects Fund.
 - Terminal Operator and Establishment are both required to share cost of the 0.8513% Central Communication System Fee, any fee for the operating of a VGT imposed by a municipality, and the annual license fee for a VGT.
- The revenues generated from the play of VGTs must be deposited into a specially created separate bank account by the Terminal Operator who is responsible for tax payments.
- The Terminal Operator must report and remit the gaming tax to the Board within 15 days after both (i) the 15th of the month and (ii) the end of each month. All payments not remitted when due will incur a penalty assessment on the unpaid balance at a rate of 1.5% per month. A Terminal Operator who falsely reports or fails to report the amount due is guilty of a Class 4 felony and is subject to termination of its license.

Additional Illegal Acts

Any licensee who knowingly permits a person under the age of 21 to use or play a VGT is guilty of a business offense and will be fined an amount not to exceed \$5,000.

Prohibition of Video Gaming by Political Subdivision

A municipality or county (or any unincorporated area within that county) may pass an ordinance prohibiting video gaming. Video gaming may also be prohibited in any municipality or county by a referendum if approved by a majority of voters in such municipality or county.

Brief Historical Overview of VGTs in Illinois 2012-2021

Video gaming in Illinois is a highly regulated business. As the following section of this report explains, some necessary elements of gambling regulation and control and specific Illinois regulations may conflict with or run counter to the Illinois legislature's stated desire to maintain a competitive market for video gaming in Illinois.

Since the first VGT machine was deployed in September of 2012, the Illinois VGT market has exhibited tremendous growth. There were 1,299 municipalities in the State of Illinois and at the end of 2021, 899 of those municipalities offered Video Gaming.² In 2021 there were in 8,273 establishments operating a total of 44,034 VGT machines.³ These establishments generated nearly \$2.5 billion of NTI in 2021 from wagering (Amount Played) of \$29.8 billion. (Exhibits 1 and 2)

Exhibit 1 presents the growth in the number of VGT machines and Licensed Establishments over the past ten calendar years (2012-2021).

² https://www.igb.illinois.gov/VideoProhibit.aspx

³ The figures for establishments and machines may be slightly larger than data published on the IGB website. CCA has utilized data from the Central Control System (CCS) from Scientific Games which includes establishments that may have ceased operations during the year. In other words, CCA counts every establishment (and VGT) that generated revenue during a year, for two reasons: first, it is how the CCS database is constructed and that source was the only way CCA could construct a new complete database going back to 2012, and second, CCA believes it is a more accurate representation of the number of machines and establishments in the market during the year and is consistent with reported Net Terminal Income (NTI) and Amount Played (Handle).

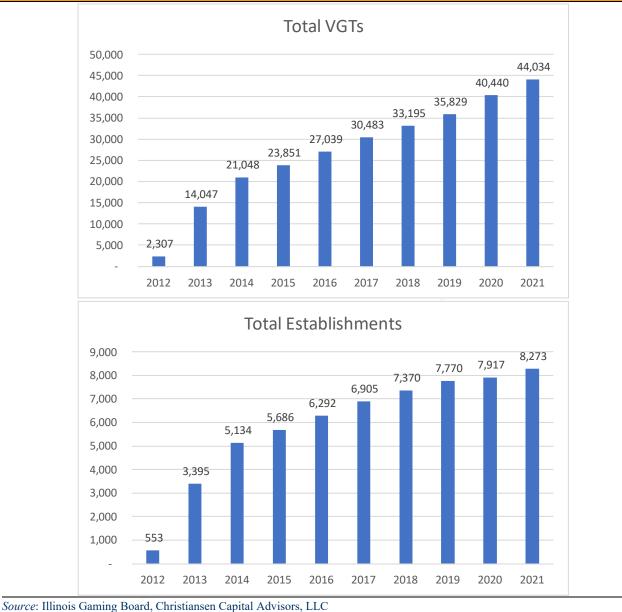
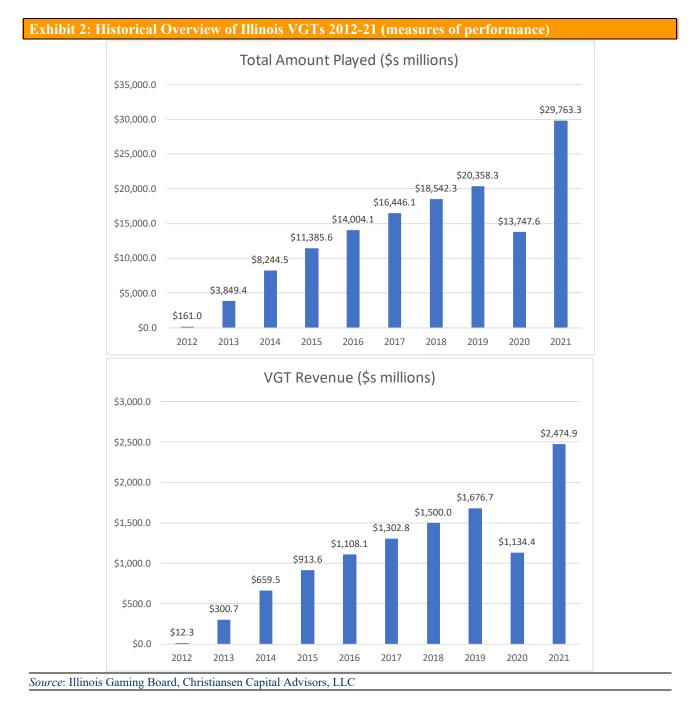


Exhibit 1: Historical Overview of Illinois VGTs 2012-21 (measures of capacity/supply)

Apart from the pandemic-affected year of 2020 (and part of 2021) the amount wagered (Amount Played) and retained (NTI) by Illinois VGTs has also shown dramatic growth between 2012 and 2021 (Exhibit 2).



Contrarily, the number of Terminal Operators providing and servicing the still-increasing number of VGTs in a still-increasing number of licensed retail establishments has remined largely static peaking at 62 TOs in 2014 and currently sitting at 57 (Exhibit 3).



Exhibit 3: Terminal Operators in Illinois 2012-2021

Illinois VGT Market Structure

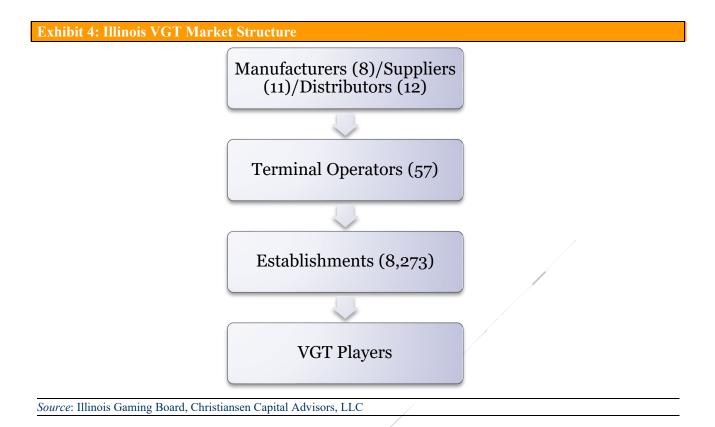
Exhibit 4 summarizes the structure of the VGT market in Illinois. Manufacturers, suppliers, and distributors provide the VGTs as well as components or parts to Terminal Operators.

230 ILCS 40/5 defines "Distributor" as an individual, partnership, corporation, or limited liability company licensed under the Video Gaming Act to buy, sell, lease, or distribute video gaming terminals or major components or parts of video gaming terminals to or from Terminal Operators.

230 ILCS 40/5 defines "Manufacturer" as an individual, partnership, corporation, or limited liability company licensed under the Act which manufactures or assembles video gaming terminals.

230 ILCS 40/5 defines "Supplier" as an individual, partnership, corporation, or limited liability company licensed under the Act to supply major components or parts for video gaming terminals to licensed Terminal Operators. There were eight licensed manufacturers, eleven suppliers, and twelve distributors in 2021 (Exhibit 4).

230 ILCS 40/5 defines a "Terminal Operator" as an individual, partnership, corporation, or limited liability company licensed under the Video Gaming Act which owns, services, and maintains video gaming terminals in licensed establishments, licensed truck stop establishments, licensed large truck stop establishments, licensed fraternal establishments, or licensed veterans establishments. There were 57 Terminal Operators providing these services to 8,273 licensed establishments in 2021 (Exhibit 4).



VGT Manufacturers, Distributors and Suppliers

Exhibit 5 presents licensed manufacturers, suppliers, and distributors of VGTs in Illinois. As shown in Exhibit 5, all manufacturers of VGT machines also hold a distributor license; a few hold supplier licenses as well.

Manufacturer	Supplier	Distributor
AGS, LLC	AGS, LLC	AGS, LLC
Aristocrat Technologies, Inc.	CountR GmbH	American Vending Sales, Inc.
Entropy Cabinet Solutions Inc., USA	Curo Group, LLC	Aristocrat Technologies, Inc.
IGT	Illinois Rewards, Inc.	Entropy Cabinet Solutions Inc., USA
Inspired Gaming (UK) Limited	JCM American Corporation	H. Betti Industries, Inc.
Konami Gaming, Inc.	M3 Technology Solutions, LLC	IGT
Novomatic Americas Sales LLC	MobileMoney, Inc.	Inspired Gaming (USA) Inc.
SG Gaming Inc.	Novomatic Americas Sales LLC	Konami Gaming, Inc.
	NRT Technology Corp.	Novomatic Americas Sales LLC
	Patriot Gaming & Electronics, Inc.	Patriot Gaming & Electronics, Inc.
	SG Gaming, Inc.	SG Gaming, Inc.
		SUZOHAPP Gaming Solutions, LLC

In 2022, the licensed manufacturers of VGTs in Illinois were as follows:

AGS, LLC., also known as PlayAGS, Inc. began supplying slot machines, video bingo machines, and other electronic gaming devices, primarily to the Class II Native American gaming market. In 2014, the company expanded its product line-up to include Class III machines for commercial and Native American casinos, VGTs, table games and interactive products.

Aristocrat Technologies' parent company, Aristocrat Leisure Limited, is an Australian based company that offers electronic gaming machines, casino management systems; digital social games; and web and mobile gaming services.

Entropy Cabinet Solutions is a designer, manufacturer and integrator of Class II and III gaming cabinets and supplies slot machines to game software companies. ECS has been involved in the coin-operated entertainment industries, OEM/ODM manufacturing, and exporting since founded in 1981.

International Game Technology ("IGT") provides a variety of technology products and services across lotteries, electronic gaming machines, sports betting, and interactive gaming markets worldwide. The company also provides video lottery terminals, central systems, and VGT games; and amusement with prize machines ("AWP") and games to licensed operators. The company was merged with GTECH S.A. and changed its name to International Game Technology PLC in April 2015.

Inspired Entertainment, Inc. is a gaming technology company supplying server-based gaming ("SBG") products to lottery, betting and gaming operators worldwide. On October 1, 2019, the company acquired several entities from Novomatic which supply various categories of gaming terminals as well as other coin operated products to pubs, arcades, motorway service areas and holiday resorts in the UK. The company started shipping its Valor terminal to Terminal Operators in the Illinois market in late 2019.

SG Gaming, Inc. better known as Scientific Games Corporation, develops technology-based products and services, and related content for the gaming, lottery, and digital gaming industries worldwide. In Illinois, SGMS is also the current provider of the "central communications system" to which all VGTs are connected and monitored by the Illinois Gaming Board. The company was founded in 1984 and is headquartered in Las Vegas, Nevada. In March 2022 Scientific Games changed its name to Light & Wonder Inc. and sold many of its manufacturing units.

Konami Gaming is involved in a variety of businesses including digital entertainment, health & fitness, gaming & systems, and pachislot & pachinko machines. Its Nevada-based gaming division designs and manufactures slot machines and casino management systems.

Novomatic Americas Sales, LLC, also known as Novomatic AG, develops, manufactures, and sells gaming products, lottery technologies, and networked system solutions for gaming and betting markets worldwide. The company was founded in 1980 and is headquartered in Gumpoldskirchen, Austria. Novomatic AG is a subsidiary of NOVO Invest GmbH.

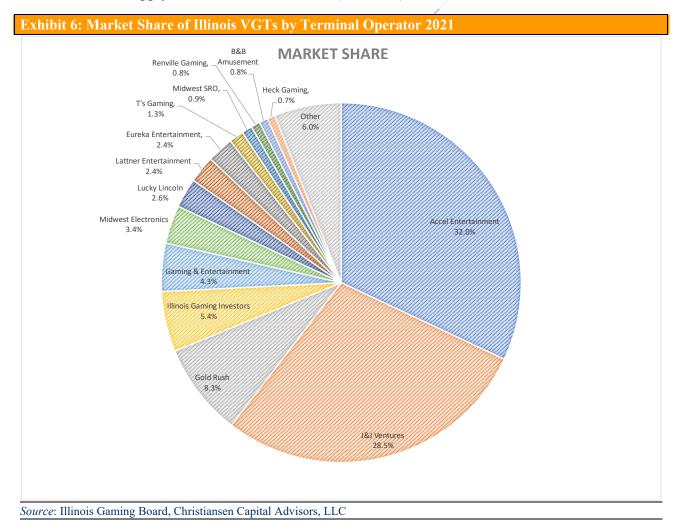
VGT Terminal Operators

Licensed establishments must outsource to a third-party Terminal Operator for the setup, maintenance, and reporting of VGT activity. The Terminal Operator's share of gaming revenue is set by the Video Gaming Act as follows:

Net Terminal Income ("NTI") -34% Tax (28.33% State; 5.67% Local) -0.8513% Administration Fee to SGMS After Tax NTI ⇒50% to the Establishment ⇒50% to the Terminal Operator

As shown in Exhibit 4, there are currently 57 Terminal Operators, or TOs, operating VGTs in the State of Illinois.

Exhibit 6 presents the market share (by number of VGTs) of these Terminal Operators in calendar 2021. The two largest Terminal Operators, Accel Entertainment and J&J Ventures controlled just over 60% of the supply of Illinois VGTs in 2021 (Exhibit 6).



Top 5 Terminal Operators

The Top 5 Terminal Operators in Illinois supplied 78.5% of VGT machines to licensed Illinois establishments in 2021 (Exhibit 6). A brief description of these five Terminal Operators follows below:

Accel Entertainment Gaming, LLC ("Accel") is the largest Terminal Operator in Illinois by number of machines deployed and trades on the NYSE under the symbol "ACEL." Accel acquired American Video Gaming and Illinois Operators, Inc. in 2020, and Fair Share Gaming in 2021.

J&J Ventures Gaming, LLC ("J&J"). The J&J family of companies started in 1929 as a coin operated amusement company. Today, J&J Ventures Amusements, a related company, provides dart machines, pool tables, jukeboxes, and ATMs. J&J Ventures Gaming is headquartered in Effingham, Illinois. J&J acquired Tap Room Gaming in December 2019, Awesome Hand Gaming in 2020, and Illinois Gaming Systems in 2021. Although slightly behind Accel in terms of number of VGTs deployed, generated more Net Terminal Income in 2021 (Appendix A).

Gold Rush Amusements, Inc. ("Gold Rush") is the third largest Terminal Operator in Illinois. The founders of Gold Rush have been involved in the amusement and cash handling industries for over 30 years.

Illinois Gaming Investors LLC (dba Prairie State Gaming) is the fourth largest Terminal Operator in Illinois. Illinois Gaming Investors LLC was acquired by Penn Entertainment in July 2015 for an undisclosed sum. Since Penn's acquisition, the company has acquired at least four other smaller Terminal Operators.

Gaming & Entertainment Management – Illinois LLC ("GEM") is the fifth largest Terminal Operator in Illinois, with 4.3% market share of VGTs in 2021. Delaware North acquired GEM in May 2016. Delaware North is one of the largest privately held hospitality and food service companies in the world. Founded in 1915, Delaware North has global operations at sports and entertainment venues, national and state parks, destination resorts and restaurants, airports, and regional casinos.

SECTION 230 ILCS 40/25(I), UNDUE CONCENTRATION AND RULE 1800.440

The Illinois legislature was interested in maintaining a vibrant competitive market for Terminal Operators in Illinois. Section 230 ILCS 40/25(i) of the Video Gaming Act (VGA) defines undue economic concentration as follows: "In addition to considering all other requirements under this Act, in deciding whether to approve the operation of video gaming terminals by a Terminal Operator in a location, the Board shall consider the impact of any economic concentration of such operation of video gaming terminals. The Board shall not allow a Terminal Operator to operate video gaming terminals if the Board determines such operation will result in undue economic concentration. For purposes of this Section, "undue economic concentration" means that a Terminal Operator would have such actual or potential influence over video gaming terminals in Illinois as to:

- (1) substantially impede or suppress competition among Terminal Operators;
- (2) adversely impact the economic stability of the video gaming industry in Illinois; or
- (3) negatively impact the purposes of the Video Gaming Act.

The Board shall adopt rules concerning undue economic concentration with respect to the operation of video gaming terminals in Illinois. The rules shall include, but not be limited to, (i) limitations on the number of video gaming terminals operated by any Terminal Operator within a defined geographic radius and (ii) guidelines on the discontinuation of operation of any such video gaming terminals the Board determines will cause undue economic concentration."

The VGA further states that regarding undue economic concentration: "The provisions of the Illinois Antitrust Act are fully and equally applicable to the activities of any licensee under this Act."

The Board adopted rules concerning undue economic concentration, which are enumerated in Section $1800.440.^4$

⁴ Section 1800.440 Undue Economic Concentration

a) In addition to considering all other requirements under the Act and this Part, the Board shall consider, in deciding whether to issue or renew a Terminal Operator license, whether the issuance or renewal will result in undue economic concentration. No Terminal Operator license shall be issued or renewed if the Board determines that the issuance or renewal will result in undue economic concentration in the direct or indirect ownership, control or operation of video gaming terminals in Illinois.

b) For purposes of this Section, "undue economic concentration" means that an individual or entity, independently or in coordination or aligned combination with one or more individuals or entities, would have such actual or potential domination of video gaming in Illinois as to:

¹⁾ substantially impede or suppress competition among holders of Terminal Operator licenses;

²⁾ adversely impact the economic stability of the video gaming industry in Illinois; or

³⁾ negatively impact the purposes of the Act, including collection of State and local government revenues and development of the video gaming industry in Illinois.

c) In determining whether the issuance or renewal of a Terminal Operator license will result in undue economic concentration, the Board shall consider the following criteria:

¹⁾ The percentage share of the market presently owned or controlled by the applicant or licensee in each of the following categories:

A) number of licensed video gaming locations in Illinois;

Section 230 ILCS 40/25(i) of the VGA directly addresses undue concentration among Terminal Operators. Section 230 ILCS 40/25(i) is not the only provision of the VGA that seeks to maintain a competitive market for Terminal Operators. Section 230 ILCS 40/25(c)⁵ of the Video Gaming Act (VGA) essentially makes Terminal Operators joint venture partners with Licensed Establishments, which must share profits 50/50, thereby seeking to prevent Terminal Operators from exercising pricing power in the video gaming market. In addition, the VGA prevents Terminal Operators from offering any economic "inducements" to licensed establishments in an attempt to secure a use agreement with such establishments.⁶

- B) number of video gaming terminals in Illinois;
- C) total net terminal income; and
- D) total amount wagered.

2) The relative position of other individuals or entities that own or control Terminal Operator licenses in Illinois, as evidenced by the market shares of each Terminal Operator license in the categories in subsection (c)(1).

3) The current and projected financial condition of the video gaming industry.

4) Current market conditions, including proximity and level of competition, consumer demand, market concentration, and any other relevant characteristics of the market.

5) Whether the Terminal Operator licensee or applicant has a common or related organizational or financial structure, or common or related assets, obligations, or ownership with other licensees.

6) The potential impact on the projected future growth and development of the video gaming industry, the local communities in which licenses are located, and the State of Illinois.

7) The barriers to entry into the video gaming industry, including the licensure requirements of the Act and this Part, and whether the issuance or renewal of a Terminal Operator license will operate as a barrier to new entities and individuals desiring to enter the market as Terminal Operators or in any of the other licensed categories under the Act.

8) Whether the issuance or renewal of the Terminal Operator license will adversely affect consumer interests, or whether that issuance or renewal is likely to result in enhancing the quality and customer appeal of products and services offered by Terminal Operators and other licensees under the Act in order to maintain or increase their respective market shares.

9) Whether a restriction or denial of the issuance or renewal of a Terminal Operator license is necessary in order to encourage and preserve competition in video gaming operations.

10) The current and projected financial condition of the Terminal Operator.

11) Any other information deemed relevant by the Board.

d) The Board has authority to place any restrictions or qualifications on the terms of a Terminal Operator license that it deems necessary to prevent or eliminate undue economic concentration, including, but not limited to, setting a limit on the maximum amount of use agreements a Terminal Operator may have. Any Terminal Operator licensee shall have the ability to contest a Board order under this subsection in accordance with Subpart G. Any hearing concerning such an order shall be limited to the reasonableness of the restrictions or qualifications placed on the Terminal Operator license to avert undue economic concentration.

⁵ 230 ILCS 40/25(c) Terminal Operator. A person may not own, maintain, or place a video gaming terminal unless he has a valid Terminal Operator's license issued under this Act. A Terminal Operator may only place video gaming terminals for use in Illinois in licensed establishments, licensed truck stop establishments, licensed large truck stop establishments, licensed fraternal establishments, and licensed veterans establishment, licensed truck stop establishment, licensed large truck stop establishment, licensed fraternal establishment, licensed truck stop establishment, licensed large truck stop establishment, licensed fraternal establishment, licensed truck stop establishment, licensed large truck stop establishment, licensed fraternal establishment, or licensed veterans establishment as any incentive or inducement to locate video terminals in that establishment. Of the after-tax profits from a video gaming terminal, 50% shall be paid to the Terminal Operator and 50% shall be paid to the licensed establishment, licensed truck stop establishment, licensed fraternal establishment, notwithstanding any agreement to the contrary. A video Terminal Operator that violates one or more requirements of this subsection is guilty of a Class 4 felony and is subject to termination of his or her license by the Board.
⁶ *Ibid.* See also IGB Rules Section 1800.250(L):" Offer or provide nothing of value to any licensed video gaming location or any agent or representative of any licensed video gaming location as an incentive or inducement to locate, keep or maintain video gaming terminals

Finally, the VGA prohibits vertical mergers within the Illinois VGT industry. Specifically, Terminal Operators may not be licensed as a Video Gaming Terminal Manufacturer or Distributor or own, manage or control a licensed establishment, licensed truck-stop establishment, licensed fraternal establishment, or licensed veterans' establishment.⁷

at the licensed video gaming location." IGB Rules Section 1800.350(b) defines good and services that do not constitute a prohibited incentive or inducement under Section 25(c) of the Act

⁷ Section 230 ILCS 40/30.

VIDEO GAMING ACT 230 ILCS 40/25 AND COMPETITION LAW

Competition law, or antitrust law, is the field of law that promotes or seeks to maintain market competition by regulating anti-competitive conduct by market participants. In general, competition law consists of three main elements:

- 1. prohibiting agreements or practices that restrict free trading and competition between businesses;
- 2. banning abusive behavior by a firm dominating a market, or anti-competitive practices that may lead to a dominant position; and
- 3. supervising mergers and acquisitions within the industry. Transactions that are considered to threaten competition can be prohibited altogether, or approved subject to remedies such as an obligation to divest part of the merged business or to offer licenses or access to facilities to enable other businesses to continue competing.

While the substance and practice of competition law varies from jurisdiction to jurisdiction, the guiding principle of most competition law is to protect the interests of consumers (consumer welfare) and ensure that entrepreneurs have an opportunity to compete.⁸

In the United States, the Antitrust Division of the Department of Justice (DOJ) and the Federal Trade Commission (FTC) periodically provide updated merger guidelines which specify methods for analyzing and defining markets and market concentration.⁹ The merger guidelines govern the process by which the DOJ and FTC evaluate and/or challenge potential mergers. Since 1982, these guidelines have emphasized an explicitly economic approach to antitrust policy.¹⁰

Specific Harms of Undue Concentration

A common core concern of anti-trust law and merger regulation is the potential for control or influence on the price of a given good or service. Given that the VGA carved out a specific segment of the VGT industry in Illinois, the commercial relationship between Terminal Operators and Establishments, and that the *price* charged by Terminal Operators to Establishments is set by statute at 50% of video gambling NTI after the discount of shared expenses¹¹ Terminal Operators are statutorily prohibited from exercising pricing power over *their* customers (Licensed Establishments).

But pricing power is not the only potential harm of undue market concentration. A merger can enhance market power simply by eliminating competition between the merging parties. This harm can arise even if the merger causes no changes in the way other firms behave. Adverse competitive effects arising in this manner are "unilateral effects." A merger also can enhance market power by increasing the risk of coordinated, accommodating, or interdependent behavior among rivals.

⁸ https://en.wikipedia.org/wiki/Competition_law#cite_note-Taylor_2006_1-2

⁹ U.S. Department of Justice & FTC, Horizontal Merger Guidelines, August 19, 2010.

https://www.ftc.gov/sites/default/files/attachments/merger-review/100819hmg.pdf

¹⁰ J. Gregory Sidak & David J. Teece. Dynamic Competition in Antitrust Law. https://www.criterioneconomics.com/dynamic-competition-in-antitrust-law.html

¹¹ And Terminal Operators are prohibited from giving anything of value, including but not limited to a loan or financing arrangement to an Establishment to incent or induce the Establishment to locate a Terminal in that Establishment.

Adverse competitive effects arising in this manner are "coordinated effects." Enhanced market power can also be manifested in non-price terms and conditions that adversely affect customers, including reduced product quality, reduced product variety, reduced service, or diminished innovation. Enhanced market power may also make it more likely that the merged entity can profitably and effectively engage in exclusionary conduct. Furthermore, enhanced market power in a highly concentrated market can both discourage and impede the ability of an entrepreneur to successfully enter the market.

When the DOJ and the FTC investigate whether a merger may lead to a substantial lessening of non-price competition, they employ an approach analogous to that used to evaluate price competition. The DOJ and the FTC normally evaluate mergers based on their impact on customers. The DOJ and the FTC examine effects on either or both direct customers and final consumers. The DOJ and the FTC presume, absent convincing evidence to the contrary, that adverse effects on direct customers also cause adverse effects on final consumers.¹²

Measures of Economic Concentration

The most fundamental measure of economic concentration is *market share*. Market share is a company's proportion or percentage of total sales in an industry, or locations as a percentage of total industry locations, or any other metric which measures the size and dominance of a company relative to its competitors. A related metric is the *concentration ratio*. Concentration ratio (CR) is the sum of the percentage market shares of a pre-specified number of companies in an industry. An *n-firm concentration ratio* is a common measure of market structure which shows the combined market share of the *n* number of firms in the market. For example, where n = 5, CR₅ defines the combined market share of the five largest firms in an industry. However, concentration ratios (such as a CR₅) do not distinguish between markets in which there are only five firms and markets where there is a long tail of firms with smaller market shares.

The VGT market in Illinois consists of 57 Terminal Operators (Exhibits 1.4 and 1.6), a small proportion of which have significant market share and, as described above, a long tail of Terminal Operators with smaller shares. This makes CR a poor measure of economic concentration in the Illinois VGT market.

The Herfindahl-Hirschman index (HHI) solves this problem by calculating the square of the market share of each firm in the market and summing the resulting numbers.¹³ The HHI considers the *relative size distribution* of the firms in a market. It approaches zero when a market is occupied by many firms of relatively equal size and reaches its maximum of 10,000 points when a market is controlled by a single firm. The HHI increases both as the number of firms in the market decreases and as the disparity in size between those firms increases, thus giving proportionately greater weight to larger market shares. For example, for a market consisting of four firms with shares of 30%, 35%, 15%, and 20%, the HHI is 2,600 (900 + 1,225 + 225 + 400 = 2,750).

The DOJ and FTC generally consider markets in which the HHI is between 1,500 and 2,500 points to be moderately concentrated and consider markets in which the HHI is more than 2,500 points to

¹² Horizontal Merger Guidelines of the U.S. Department of Justice and Federal Trade Commission, August 19, 2010, at §1.

¹³ The Herfindahl-Hirschman index was first included in the 1982 update of the Horizontal Merger Guidelines.

be highly concentrated.¹⁴ Additionally, transactions that increase the HHI by more than 200 points in highly concentrated markets are presumed likely to enhance market power under the Horizontal Merger Guidelines issued by the Department of Justice and the Federal Trade Commission.¹⁵

While generally accepted as a preferred measure of market concentration, the HHI calculation does have some limitations; not the least which being that it is a "one size fits all" calculation. HHI does not account for the nuances and complexities of certain markets, such as the interplay between the necessary barriers of gambling regulation and control and the desire to maintain a vibrant competitive market. Additionally, the standard HHI calculation assumes ownership is binary, and so minority shareholdings in rivals and common shareholdings by institutional investors in rival firms are not reflected. *To the extent that common ownership is not disclosed, or ownership information is unavailable, HHI measures are likely to underestimate the true degree to which ownership is concentrated.*

Another problem in defining a market and considering market share can arise from geographic factors. This can occur when there are companies within an industry that have roughly equal market share, but they each operate only in specific areas, so that each firm, in effect, has a monopoly within the specific marketplace in which it does business.

There are other measures of concentration, including the Lorenz Curve and the Gini Coefficient. These measures are primarily used to measure income and wealth inequality among individuals or household and are infrequently employed in industrial organization and competition policy analysis.¹⁶ As discussed below, CCA believes HHI is the most appropriate measure of concentration in the Illinois video gaming market.

¹⁴ See U.S. Department of Justice & FTC, Horizontal Merger Guidelines § 5.3 (2010). Based on their experience, the DOJ and the FTC generally classify markets into three types:

Unconcentrated Markets: HHI below 1500

Unconcentrated Markets: Mergers resulting in unconcentrated markets are unlikely to have adverse competitive effects and ordinarily require no further analysis.

Moderately Concentrated Markets: Mergers resulting in moderately concentrated markets that involve an increase in the HHI of more than 100 points potentially raise significant competitive concerns and often warrant scrutiny.

Highly Concentrated Markets: Mergers resulting in highly concentrated markets that involve an increase in the HHI of between 100 points and 200 points potentially raise significant competitive concerns and often warrant scrutiny. Mergers resulting in highly concentrated markets that involve an increase in the HHI of more than 200 points will be presumed to be likely to enhance market power. The presumption may be rebutted by persuasive evidence showing that the merger is unlikely to enhance market power. ¹⁵ Id.

¹⁶ For further information see, for example, G. Rosenbluth, "Measures of Concentration" in National Bureau of Economic Research, Business Concentration and Price Policy, Princeton University Press, Princeton, 1955; E.M. Singer, "The Structure of Industrial Concentration Indexes," Antitrust Bulletin, Vol. X, January-April, 1965, pp. 75-104; and D. Encaoua and A. Jacquemin, "Degree of Monopoly, Indices of Concentration and Threat of Entry," International Economic Review, Vol. 21, 1980, pp. 87-105.

Moderately Concentrated Markets: HHI between 1500 and 2500

Highly Concentrated Markets: HHI above 2500

The DOJ and the FTC employ the following general standards for the relevant markets they have defined:

Small Change in Concentration: Mergers involving an increase in the HHI of less than 100 points are unlikely to have adverse competitive effects and ordinarily require no further analysis.

Relevant Market Definition

In competition law, a *relevant market* is a market in which a particular product or service is sold. A relevant market is commonly defined as the intersection of the relevant product market and the relevant geographic market. For example, the European Commission defines a relevant market and its product and geographic components as follows:

- A *relevant product market* comprises all those products and/or services which are regarded as interchangeable or substitutable by the consumer by reason of the products' characteristics, their prices, and their intended use.
- A *relevant geographic market* comprises the area in which the firms concerned are involved in the supply of products or services and in which the conditions of competition are sufficiently homogeneous.¹⁷

Similarly, although not as concise as the European Union definition, in the *Horizontal Merger Guidelines* the DOJ and the FTC focus primarily on the *availability of viable substitutes*, both in terms of product and geographic availability:

"Market definition focuses solely on demand substitution factors, i.e., on customers' ability and willingness to substitute away from one product to another in response to a price increase or a corresponding non-price change such as a reduction in product quality or service. The responsive actions of suppliers are also important in competitive analysis. They are considered in these Guidelines in the sections addressing the identification of market participants, the measurement of market shares, the analysis of competitive effects, and entry.

Customers often confront a range of possible substitutes for the products of the merging firms. Some substitutes may be closer, and others more distant, either geographically or in terms of product attributes and perceptions. Additionally, customers may assess the proximity of different products differently. When products or suppliers in different geographic areas are substitutes for one another to varying degrees, defining a market to include some substitutes and exclude others is inevitably a simplification that cannot capture the full variation in the extent to which different products compete against each other."¹⁸

In other words, according to the *Horizontal Merger Guidelines*, the relevant product market question asks to what degree customers can substitute away from the product in response to a price increase or reduced product quality, reduced product variety, reduced service, or diminished innovation.¹⁹

Barriers to Entry

¹⁷ Definition of relevant rarket, Commission Notice on the definition of relevant market for the purposes of Community competition law. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM:l26073

¹⁸ Horizontal Merger Guidelines of the U.S. Department of Justice and Federal Trade Commission, August 19, 2010, at §4.

¹⁹ Pittman, Russell. "Three Economist's Tools for Antitrust and Merger Analysis: Case Applications" Economic Analysis Group Discussion Paper, United States Department of Justice. June 2021. http://www.justice.gov/atr/public/eag/discussion-papers.html.

Any evaluation of market concentration must include consideration of *barriers to entry* in the market. *Barriers to entry* is an economic term describing factors that can prevent or impede newcomers to an industry and thereby limit competition in a market. These barriers can include high start-up costs, regulatory hurdles, or other obstacles that discourage new competitors from easily entering a market or business sector.

Governments create barriers to entry for many legitimate reasons. In some cases, such as consumer protection laws, these barriers are intended to protect public safety but may also have the unintended effect of favoring incumbent businesses. In other cases, such as broadcasting licenses or commercial airlines, the barriers are due to the inherent scarcity of the public resources needed by these industries. In other cases, the government may impose barriers to entry explicitly to protect favored industries.²⁰

VGT gaming in Illinois falls under the consumer protection category of government regulations. Although an appropriate and necessary barrier to maintain faith and trust in Illinois gaming, the licensing process is nevertheless, from a purely economic point of view, a barrier to entry.

The Organization for Economic Co-operation and Development (OECD) provides a Competition Assessment Toolkit for policymakers at all levels of government to assess laws, regulations, and policies for their competition effects, with recommendations as to how to revise regulations or policies to make them more pro-competitive.²¹ The OECD is a forum where the governments of 37 democracies with market-based economies collaborate to develop policy standards to promote sustainable economic growth.

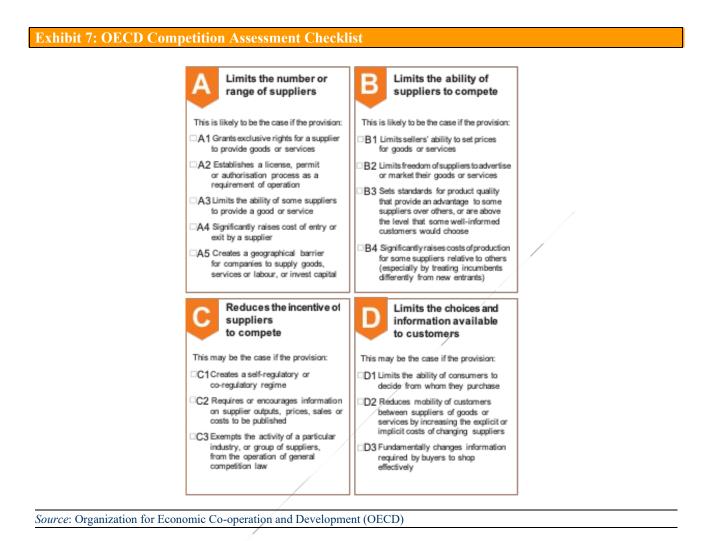
The OECD's Competition Assessment Toolkit provides a checklist for policymakers to evaluate laws and regulations that may inhibit competition. Exhibit 7 presents this checklist. The VGA checks three of these boxes:

- 1) it "establishes a license, permit or authorisation[sic] process as a requirement of operation;"
- 2) "limits the ability of some suppliers to provide a good or service;" and
- 3) "limits sellers' ability to set prices for goods or services." The requirement of the VGA that Terminal Operators split net revenues 50/50 cuts both ways.

While this requirement prevents a Terminal Operator with enhanced market power from instituting a small but significant and non-transitory increase in price ("SSNIP") it also could theoretically prevent a smaller operator (without market power) from competing on price. That said, the significant economies of scale available in VGT gaming make it more likely that a larger operator would have greater latitude with regard to pricing than an upstart.

²⁰ Hayes, Adam. Barriers to Entry. Updated June 04, 2022. https://www.investopedia.com/terms/b/barrierstoentry.asp

²¹ OECD (2019), Competition Assessment Toolkit: Volume 3. Operational Manual, www.oecd.org/competition/toolkit



The Application of Competition Law by Regulators

"Competition law should not try to stop increases in concentration from internal growth by the most innovative and efficient firms."²²

-Gregory J. Werden, Ph. D. United States Department of Justice Antitrust Division

Horizontal merger regulation is a predictive exercise that is conducted after mergers are proposed but before they are consummated. The *Horizontal Merger Guidelines* are careful to state that they should be interpreted with the awareness that merger analysis does not consist of uniform application of a single methodology. Rather, it is a fact-specific process through which the DOJ and the FTC apply a range of economic analytical tools to reliable evidence to evaluate competitive concerns. The predominant principal is that mergers should not be permitted to create, enhance, or entrench market power or to facilitate its exercise.²³

²² Werden, Greg. "Market Concentration – US DOJ – June 2018 OECD discussion" presentation by US Department of Justice, made during the discussion "Market Concentration" held at the 129th meeting of the OECD Competition Committee on 7 June 2018.

²³ Horizontal Merger Guidelines of the U.S. Department of Justice and Federal Trade Commission, August 19, 2010, at §1.

Mergers that cause a significant increase in concentration and result in highly concentrated markets are presumed to be likely to enhance market power, **but** this presumption can be rebutted by persuasive evidence showing that the merger is unlikely to enhance market power.²⁴

Even in highly concentrated markets (an HHI greater than 2,500), the question then becomes whether this enhanced market power has been acquired through legitimate or illegitimate means. In other words, have firms gained market power through greater efficiency, productivity, and innovation, or *via* tactical mergers or predatory practices.²⁵

For example, increased market concentration can occur due to a firm's extension of its market power through repeated success in innovating and distinguishing itself from its rivals and/or cutting costs and improving productivity. Autor *et al* (2017) describe this as the *Superstar Firm Hypothesis*. Such superstar firms might result in an increase concentration that would be perfectly consistent with ongoing and intense competition.²⁶

Although there is wide diversity of opinions among qualified economists as to how regulatory agencies should distinguish between **undue** and **due** concentration and arbitrate these issues, CCA believes that the application of the *structural presumption doctrine* circumvents the need for such analyses.

The structural presumption doctrine was advanced by the U.S. Supreme Court in its 1963 decision in *United States v. Philadelphia National Bank*.²⁷ In that ruling, the Court stated that "a merger which produces a firm controlling an undue percentage share of the relevant market, and results in a significant increase in the concentration of firms ... is so inherently likely to lessen competition substantially that it must be enjoined in the absence of evidence clearly showing that the merger is not likely to have such anticompetitive effect."²⁸

The critical element of *Philadelphia National Bank* is that it shifts the burden of evidence from regulators to acquiring firms. In other words, the merging parties bear the burden of showing that competition in the market will not be diminished should the merger be approved by regulatory authorities.^{29 30}

²⁴ *Ibid.* §2.1.3.

²⁵ Chris Pike, Antonio Capobianco and Antonio Gomes. "Market Concentration" Issues paper by the Secretariat. OECD Competition Division, June 6-8, 2018. http://www.oecd.org/daf/competition/market-concentration.htm

²⁶ D Autor, D Dorn, L Katz, C Patterson, J Van Reenen. "The Fall of the Labor Share and the Rise of Superstar Firms." NBER Working Paper Series. 2017

²⁷ United States v. Philadelphia Nat'l Bank, 374 U.S. 321 (1963)

²⁸ Ibid.

²⁹ Hovenkamp, H. & C. Shapiro, (2018), "Horizontal Mergers, Market Structure, and Burdens of Proof". Cited from "Market Concentration, Issues paper by the Secretariat" DIRECTORATE FOR FINANCIAL AND ENTERPRISE AFFAIRS

COMPETITION COMMITTEE, Organisation for Economic Co-operation and Development, 20 April 2018

³⁰ Hovenkamp, Herbert J. and Shapiro, Carl, "Horizontal Mergers, Market Structure, and Burdens of Proof" (2018). Faculty Scholarship at Penn Law. 1932. https://scholarship.law.upenn.edu/faculty_scholarship/1932

CCA review of IGB data compilation and reporting methodology for the criteria outlined in Rule 1800.440 (c) (1).

CCA reviewed, assessed, and validated IGB data compilation and reporting methodology for the criteria outlined in Rule 1800.440 (c) (1). When reviewing the IGB methodology, CCA considered IGB's interpretation of the "share of the market presently owned or controlled" per Section 1800.440 (c) (1) and IGB's interpretation of "defined geographic radius" in the compilation and reporting of undue economic concentration.

Section 1800.440 (C) (1) A-D of the IGB Administrative Rules states:

"In determining whether the issuance or renewal of a Terminal Operator license will result in undue economic concentration, the Board shall consider the following criteria:

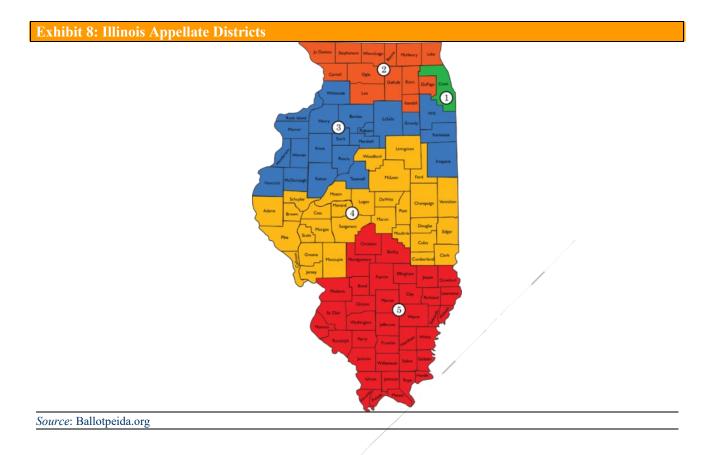
The percentage share of the market presently owned or controlled by the applicant or licensee in each of the following categories:

- A) number of licensed video gaming locations in Illinois;
- B) number of video gaming terminals in Illinois;
- C) total net terminal income; and
- D) total amount wagered."

To measure the "share of the market presently owned or controlled" by Terminal Operators, the Board's monthly monitoring reports of undue concentration within the Illinois VGT industry exactly follow the preceding list. The Board measures the market share of VGTs, Licensed Establishments, NTI and total amount wagered and uses these data to calculate the Herfindahl-Hirschman Index (HHI) for each category. As discussed in a previous section of this report, HHI is the preferred and generally accepted methodology for measuring market concentration.

The Board generates examines two sets of data for each of these four criteria: one that evaluates the entire State of Illinois and another which a 'defined geographic radius' as the five appellate districts within the State (appellate districts roughly reflect equal populations).

Exhibit 8 presents a map of these five Appellate Districts.



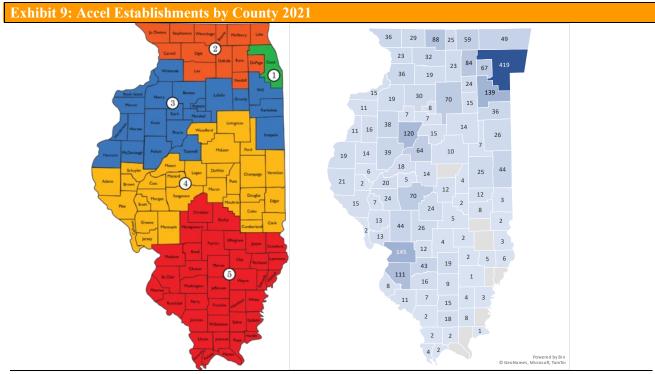
Defined Geographic Radius and Relevant Markets

CCA recommends that the VGA's 'defined geographic radius' should be constructed in a way as to be analogous to the term "relevant market" as discussed in the previous section of this report and utilized by the United States Department of Justice and the Federal Trade Commission when those Agencies evaluate the competitive effect of mergers.

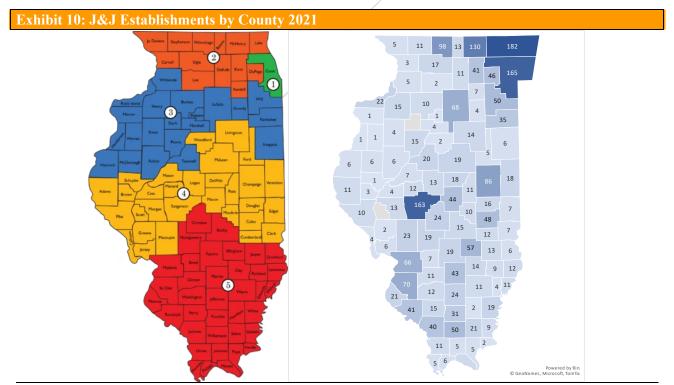
Terminal Operators provide VGT machines to Licensed Establishments, but also must maintain and service those machines 24/7. In theory, this should incentivize Terminal Operators to focus on specific geographic regions so that the Terminal Operator can provide adequate and timely coverage (in terms of response time) of a specific geographic region with an appropriate number of technicians.

One way to test this theory is to determine where Terminal Operators actually conduct business. Exhibits 1.13-1.17 present the number of Licensed Establishments by County for the Top 5 Terminal Operators in 2021.

As might be expected, the two largest Terminal Operators, Accel Entertainment and J&J Enterprises, operate in almost every county of Illinois and in every appellate district (Exhibits 9 and 10).

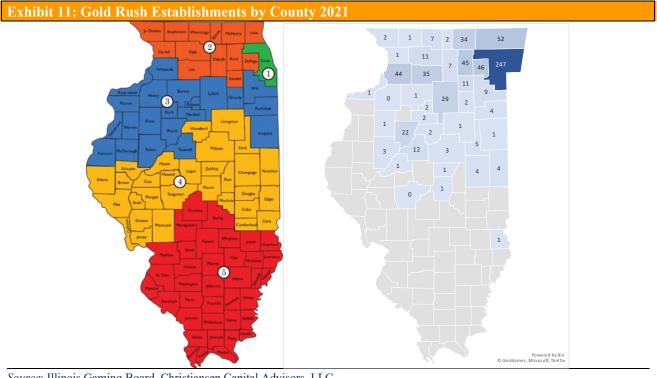


Source: Illinois Gaming Board, Christiansen Capital Advisors, LLC



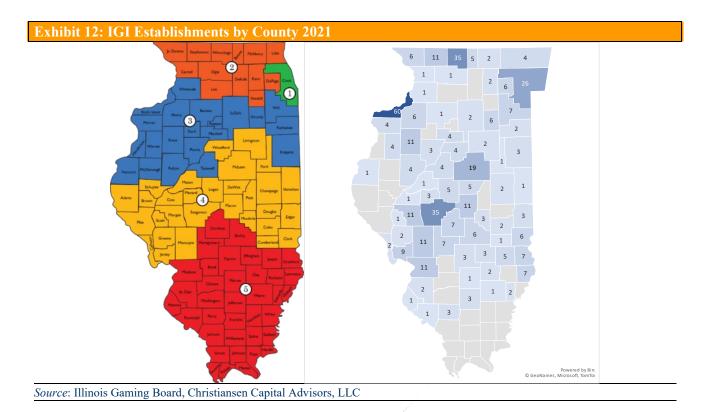
Source: Illinois Gaming Board, Christiansen Capital Advisors, LLC

The third largest Terminal Operator, Gold Rush Amusements, Inc., operates primarily in Districts 1-3 with a few establishments in the northern part of the 4th District and one location in the 5th District.

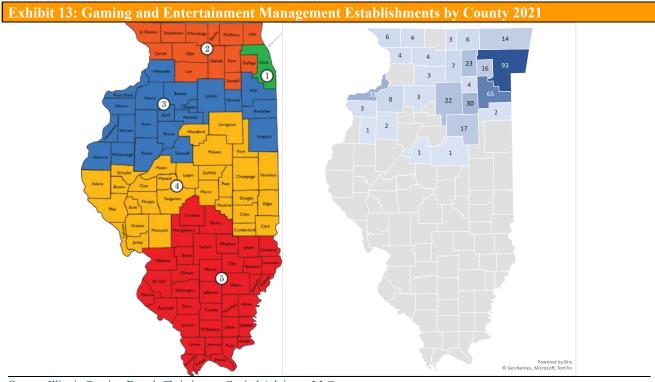


Source: Illinois Gaming Board, Christiansen Capital Advisors, LLC

Illinois Gaming Investors LLC (dba Prairie State Gaming) is somewhat more widespread but has its greatest concentration in the center of the state, specifically Districts 3 and 4.



Gaming & Entertainment Management operates VGTs exclusively in the northern third of Illinois, specifically Appellate Districts 1-3, and a few establishments in the northern part of District 4.



Source: Illinois Gaming Board, Christiansen Capital Advisors, LLC

CCA believes that the above maps verify that the Illinois Appellate Districts are a reasonable and accurate representation of the relevant geographic markets for Terminal Operators in Illinois.

While it is true that the available data would allow the Board to analyze market share by units as small as the county level, we do not believe that would lead to a more accurate representation of economic concentration. First, as shown in the maps above, counties appear to be too small a geographic unit to accurately represent the available geographic market for Terminal Operators. Even if it were an accurate representation, Illinois's 102 counties would cause a "forest for the trees" problem, hindering meaningful analysis of economic concentration.

Suggested Refinements to the Video Gaming Economic Concentration Reports

CCA concludes that the Illinois Gaming Board's Video Gaming Economic Concentration reporting is a reasonable approach to determining undue economic concentration in the Illinois video gaming market as required in the Video Gaming Act and IGB Administrative Rules, including the IGB's interpretation of the "share of the market presently owned or controlled" per Section 1800.440 (c) (1) and IGB's interpretation of "defined geographic radius" in the compilation and reporting of undue economic concentration.

A Terminal Operator Concentration Model (TOCM)

Rather than make recommendations for a methodology the IGB could utilize in monitoring undue economic concentration and evaluate potential mergers of Terminal Operators, CCA created a Terminal Operator Concentration Model (TOCM). This model is included in a series of MS Excel files going back to the inception of video gaming in 2012. Summary reports from this model are presented in the Appendices to this study.

Frequency of Reporting

CCA believes that reporting on the status of the market share of Terminal Operators and HHI need not be performed each month. We believe that annual periodic reporting (either Fiscal or Calendar Year)³¹ is adequate to maintain a finger on the pulse of the industry and Terminal Operators, as long as this periodic analysis is supplemented by *ad hoc* analyses when a Terminal Operator seeks Board approval to merge with or acquire another Terminal Operator. These *ad hoc* analyses should consist of a "what-if" scenario using the TOCM to measure the projected shares of Terminal Operators in Illinois if the transaction is approved and should form a basis for approval and/or rejection. If the merger is approved the new market shares and HHI indices then become part of the TOCM.³²

For presentation purposes, CCA also recommends that the Board employ pie charts rather than bar charts in its presentation of market share of VGTs by either State or region.

Exhibit 14 presents a summary of the HHIs from the TOCM for all regions and categories in calendar 2021. The full 2021 report from the TOCM is presented in Appendix A. As shown in the Exhibit, Region 1 is the least concentrated whereas Region 5 is the most concentrated, exceeding an HHI score of 3,000 in all four categories. According to the *Horizontal Merger Guidelines*, Region 5

³¹ In the sample reporting provided in Appendix A, CCA has opted for Calendar Year, primarily because it is the most recent.

³² CCA has provided a hypothetical sample report of such a transaction from the TOCM in Appendix B.

qualifies as a highly concentrated market (>2,500) whereas the Statewide scores indicate a moderately concentrated market (1,500 - 2,500).

bit 14: HHI by Categ		D · 10	• • •	
	HHI Scores by	Region and S	statewide	
	VGT	EST	NTI	HNDL
	HHI	HHI	HHI	HHI
Region 1	1,550.0	1,520.3	1,446.2	1,482.6
Region 2	2,021.2	2,033.4	1,803.7	1,858.4
Region 3	2,157.1	2,209.7	2,031.2	2,128.2
Region 4	2,408.2	2,344.6	2,120.2	2,254.9
Region 5	3,197.0	3,222.1	3,042.1	3,163.9
Statewide	1,987.5	1,992.3	1,763.2	1,849.1

Source: Illinois Gaming Board, Christiansen Capital Advisors, LLC

Finally, the Board's Video Gaming Economic Concentration reporting provides monthly snapshots of the VGT market but do not highlight changes in the marketplace. As we describe in greater detail in subsequent pages of this report, CCA believes that the Board should focus on the *Delta* (Δ), or changes in the marketplace, rather than the HHI. The Board should maintain an archive of each time the TOCM is updated (both periodic updates and *ad hoc* updates). These records of the evolution of video gaming in Illinois would provide necessary context that can further inform Board decisions with respect to undue economic concentration.

By way of example, in Exhibit 15 CCA has utilized the TOCM to construct a summary of Statewide HHIs by category for 2012 to 2021. As shown in this exhibit, the HHIs across all four categories have increased sharply since 2019.

Exhibit 15: Histor	ical View	of HHI	by Categ	gory (201	2-2022)					
VGTS	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
HHI Score (VGTs)	860.9	656.7	714.8	733.9	814.3	995.6	1110.1	1468.1	1713.5	1987.5
Y/Y Change in HHI		-204.2	58.1	19.1	80.4	181.3	114.5	357.9	245.4	274.0
ESTABLISHMENTS	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
HHI Score (Establishments)	989.9	703.4	743.1	740.8	824.2	989.3	1110.1	1493.7	1741.3	1992.3
Y/Y Change		-286.5	39.7	-2.2	83.4	165.0	120.9	383.5	247.6	251.0
NTI	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
HHI Score (NTI)	737.2	624.8	586.1	626.7	666.2	793.0	941.5	1101.6	1350.4	1763.2
Y/Y Change		-112.4	-38.7	40.6	39.6	126.7	148.5	160.1	248.8	412.9
HANDLE	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
HHI Score (HNDL)	718.2	612.6	573.7	617.5	667.8	803.6	963.2	1149.1	1424.6	1849.1
Y/Y Change		-105.6	-38.9	43.8	50.2	135.9	159.6	185.9	275.5	424.6
Source: Illinois Gaming	g Board, Chi	ristiansen (Capital Adv	isors, LLC						

The TOCM also allows us to explore the factors driving this increase in HHI. Exhibit 16 presents merger transactions in 2019 through 2021 as well as the number of VGTs operated by the acquired Terminal Operator(s) prior to the merger. A few large transactions, including Accel Entertainment's acquisition of Grand River Jackpot and J&J Ventures's acquisitions of Tap Room Gaming, Awesome Hand, and Illinois Gaming Systems, have driven the vast majority of the increase.

Merged TOs	Acquirer	# of VGTs
2019		
Grand River Jackpot, LLC	Accel Entertainment Gaming, LLC	2,008
Melody Gaming, LLC	J&J Ventures Gaming, LLC	615
Barcade Gaming LLC	J&J Ventures Gaming, LLC	83
William S. Stanford III	J&J Ventures Gaming, LLC	23
Emperor Video Slots Corporation	Illinois Gaming Systems, LLC	15
Total		2,744
Tap Room Gaming, LLC Awesome Hand Services, LLC Illinois Operators, Inc. American Video Gaming	J&J Ventures Gaming, LLC J&J Ventures Gaming, LLC Accel Entertainment Gaming, LLC Accel Entertainment Gaming, LLC	1,441 999 52 300
Total	Accor Enertainment Ganing, EIA	2,792
2021		,
Illinois Gaming Systems, LLC	J&J Ventures Gaming, LLC	1,655
Veterans VGT, LLC	J&J Ventures Gaming, LLC	35
Total		1,690

HIERARCHY OF THE 11 CRITERIA OF RULE 1800.440

In determining whether the issuance or holding of a Terminal Operator license by a person will result in undue economic concentration, the Board is directed by Rule 100.440 to consider the following 11 criteria:

- 1. The percentage share of the market presently owned or controlled by the applicant or licensee in each of the following categories:
 - A) number of licensed video gaming locations in Illinois;
 - B) number of video gaming terminals in Illinois;
 - C) total net terminal income; and
 - D) total amount wagered.
- 2. The relative position of other individuals or entities that own or control Terminal Operator licenses in Illinois, as evidenced by the market shares of each Terminal Operator license in the categories in subsection (c)(1).
- 3. The current and projected financial condition of the video gaming industry.
- 4. Current market conditions, including proximity and level of competition, consumer demand, market concentration, and any other relevant characteristics of the market.
- 5. Whether the Terminal Operator licensee or applicant has a common or related organizational or financial structure, or common or related assets, obligations, or ownership with other licensees.
- 6. The potential impact on the projected future growth and development of the video gaming industry, the local communities in which licenses are located, and the State of Illinois.
- 7. Barriers to entry into the video gaming industry, including the licensure requirements of the Act and this Part, and whether the issuance or renewal of a Terminal Operator license will operate as a barrier to new entities and individuals desiring to enter the market as Terminal Operators or in any of the other licensed categories under the Act.
- 8. Whether the issuance or renewal of the Terminal Operator license will adversely affect consumer interests, or whether that issuance or renewal is likely to result in enhancing the quality and customer appeal of products and services offered by Terminal Operators and other licensees under the Act in order to maintain or increase their respective market shares.
- 9. Whether a restriction or denial of the issuance or renewal of a Terminal Operator license is necessary in order to encourage and preserve competition in video gaming operations.
- 10. The current and projected financial condition of the Terminal Operator.
- 11. Any other information deemed relevant by the Board.

Recommendations: Objective Criteria

In evaluating the hierarchy of the 11 criteria above, CCA recommends that priority be given to objectively measurable criteria. This includes the four categories listed under Section 1800.440 (c)1. above. The first two of these four criteria, VGTs and Licensed Establishments, reflect the physical capacity or supply of VGTs, whereas NTI and Amount Played measure performance.

CCA believes priority should be given to physical capacity and supply in measuring concentration. While NTI and Amount Played are important variables and should also be considered (for example if one Terminal Operator had substantial control of the highest performing machines in the State), there are a myriad of factors which influence machine performance wholly unrelated to a Terminal Operators market share.

In other words, CCA believes the number of VGTs and Licensed Establishments is a cleaner representation of market share and/or concertation. Before 2019, when all Licensed Establishments in the State were allowed only five machines, the number of VGTs and License Establishments were very closely correlated. That correlation has become weaker now that large truck stops are allowed up to 10 machines.

In summary, CCA believes priority should be given to measures of supply, supplemented by measures of performance. Given the correlation between number of VGTs and Licensed Establishments and between Net Terminal Income and the Amount Played, the Board could consider *averaging* VGTs and Establishments as well as NTI and Amount Played. This procedure would result in two HHIs: one for *capacity* (VGTS and ESTs), and one for *performance* (NTI and Amount Played).

Further, to ensure that these counts are accurate assessments of market share, CCA believes the Board should utilize licensing information to determine whether Terminal Operators have a common or related organizational or financial structure, or common or related assets, obligations, or ownership with other licensees.

Utilizing the information above, the Board should then consider whether the issuance or renewal of a Terminal Operator license will adversely affect consumer interests, or whether issuance or renewal is likely to result in enhancing the quality and customer appeal of products and services offered by Terminal Operators and other licensees under the Act in order to maintain or increase their respective market shares and, relatedly, whether a restriction or denial of the issuance or renewal of a Terminal Operator license is necessary in order to encourage and preserve competition in video gaming operations.

Recommendations: Subjective Criteria

Board decisions that could prevent the merger of private enterprises or that require significant government mandated divestures should not be taken lightly. For this reason, CCA believes that first and foremost the Board should rely on *objective criteria* that define the market as it currently exists and the *measurable impact* of a proposed merger or acquisition. *Subjective criteria*, such as the current and projected financial condition of the video gaming industry, the potential impact on the projected future growth and development of the video gaming industry, the local communities in which licenses are

located, and the State of Illinois, and the current and projected financial condition of the Terminal Operator, should be subordinate.

In Exhibit 17 CCA reorders the 11 criteria of Rule 1800:440 based upon the above recommendations.

Exhibit 17: Suggested Hierarchy of the 11 Rule 1800.440 Criteria

- 1. The percentage share of the market presently owned or controlled by the applicant or licensee in each of the following categories:
 - A) number of licensed video gaming locations in Illinois;
 - B) number of video gaming terminals in Illinois;
 - C) total net terminal income; and
 - D) total amount wagered.
- 2. The relative position of other individuals or entities that own or control Terminal Operator licenses in Illinois, as evidenced by the market shares of each Terminal Operator license in the categories in subsection (c)(1).
- 3. Current market conditions, including proximity and level of competition, consumer demand, market concentration, and any other relevant characteristics of the market.
- 4. Whether the Terminal Operator licensee or applicant has a common or related organizational or financial structure, or common or related assets, obligations, or ownership with other licensees.
- 5. The barriers to entry into the video gaming industry, including the licensure requirements of the Act and this Part, and whether the issuance or renewal of a Terminal Operator license will operate as a barrier to new entities and individuals desiring to enter the market as Terminal Operators or in any of the other licensed categories under the Act.
- 6. Whether the issuance or renewal of the Terminal Operator license will adversely affect consumer interests, or whether that issuance or renewal is likely to result in enhancing the quality and customer appeal of products and services offered by Terminal Operators and other licensees under the Act in order to maintain or increase their respective market shares.
- 7. Whether a restriction or denial of the issuance or renewal of a Terminal Operator license is necessary in order to encourage and preserve competition in video gaming operations.
- 8. The current and projected financial condition of the video gaming industry.
- 9. The potential impact on the projected future growth and development of the video gaming industry, the local communities in which licenses are located, and the State of Illinois.
- 10. The current and projected financial condition of the Terminal Operator.
- 11. Any other information deemed relevant by the Board.

Source: Illinois Gaming Board and Christiansen Capital Advisors, LLC

SPECIFIC THRESHOLDS OR MAXIMUM PERCENTAGES OF THE VGT MARKET ALLOWED

As discussed above, CCA does not believe the Board should apply a static specific threshold or maximum percentage of the market that a Terminal Operator would potentially own or control to constitute undue economic concentration, either across the State, or within defined geographic regions. Markets are dynamic, not static. And as discussed previously, the Board should not seek to prevent increases in concentration from growth by the most innovative and efficient Terminal Operators.

Thus, CCA recommends that the Board focus on enforcement actions that prevent or curb predatory or unfair practices by Terminal Operators and make full use of its power to approve or disapprove any merger or material change of ownership among Terminal Operators that would mitigate against the purposes of the Video Gaming Act or impair the public interest the Act is intended to preserve. This can be accomplished with a focus on the predicted *Delta* (Δ) or change in the HHI should a merger between Terminal Operators be approved.

When viewed from this perspective, rather than the overall HHI, the Board can utilize specific thresholds when evaluating potential mergers. In keeping with the structural presumption as defined in *Philadelphia National Bank* and quantified in the *Horizontal Merger Guidelines*, the DOJ and the FTC employ the following general standards for relevant markets:

- *Small Change in Concentration*: Mergers involving an increase in the HHI of less than 100 points are unlikely to have adverse competitive effects and ordinarily require no further analysis.
- *Unconcentrated Markets*: Mergers resulting in unconcentrated markets are unlikely to have adverse competitive effects and ordinarily require no further analysis.
- *Moderately Concentrated Markets*: Mergers resulting in moderately concentrated markets that involve an increase in the HHI of more than 100 points potentially raise significant competitive concerns and often warrant scrutiny.
- *Highly Concentrated Markets*: Mergers resulting in highly concentrated markets that involve an increase in the HHI of between 100 points and 200 points potentially raise significant competitive concerns and often warrant scrutiny. Mergers resulting in highly concentrated markets that involve an increase in the HHI of more than 200 points will be presumed to be likely to enhance market power. The presumption may be rebutted by persuasive evidence showing that the merger is unlikely to enhance market power.³³

As shown in Exhibit 14, the 2021 HHI ranged from 1,763 to 1,992 for VGTs, Establishments, Net Terminal Income, and the Amount Played or handle, which according to the *Horizontal Merger Guidelines* defines a moderately concentrated market. CCA recommends adopting the above model for Terminal Operators in Illinois.

³³ Horizontal Merger Guidelines of the U.S. Department of Justice and Federal Trade Commission, August 19, 2010, at §5.3.

Recommendation

CCA summarizes and adapts the foregoing standards for the Board to adopt in its regulation of the Illinois VGT market.

- For as long as the market remains "moderately concentrated" (HHI<2,500) and there are no other, non-related, concerns the Board can approve mergers that result in an increase in HHI of less than 100 without additional scrutiny.
- For as long as the market remains "moderately concentrated" (HHI<2,500) and there are no other, non-related, concerns the Board should use its discretion as to whether it requires additional information or evidence that the transaction would not result in undue concentration from the Terminal Operators contemplating a merger that would result in an increase in HHI of between 100 and 200.
- For as long as the market remains "moderately concentrated" (HHI<2,500) a merger that involves an increase in the HHI of more than 200 points will be presumed to be likely to enhance market power and will only be approved with a great deal of scrutiny and the structural presumption will apply. The Board shall only approve such a transaction if the merging parties can present persuasive evidence showing that the merger is unlikely to enhance market power or agree to divestures that would bring the transaction within these limits.
- If the market moves into a 'highly concentrated" (HHI>2,500) state, a merger that involves an increase in the HHI of more than 100 points will be presumed to be likely to enhance market power and will only be approved with a great deal of scrutiny and the structural presumption will apply. The Board shall only approve such a transaction if the merging parties can present persuasive evidence showing that the merger is unlikely to enhance market power or agree to divestures that would bring the transaction within these limits.
- If the market moves into a 'highly concentrated" (HHI>2,500) state, if presented with a merger that involves an increase in the HHI of less than 100 points the Board should use its discretion as to whether it requires additional information or evidence that the transaction would not result in undue concentration.

Finally, as noted in the previous discussion of HHI, the Board might consider *averaging* VGTs and Establishments as well as NTI and Amount Played into two datapoints: *capacity* and *performance*.

In Appendix B, CCA utilizes the TOCM to produce a sample report on a hypothetical merger between J&J Ventures and Midwest Electronics.

Exhibit 18 summarizes the results of the resulting change in HHIs by region and Statewide. As shown in this exhibit, based upon market shares at the end of 2021 a hypothetical merger of these two Terminal Operators would result in increase of HHIs between 160.9 and 207.5 in the four Rule 1800.440 categories. Because Midwest does not operate machines in Region 1 or 2 these values would remain unchanged. Region 3 values would marginally increase, and Region 4 and 5 values would increase markedly if this hypothetical transaction were to be approved by the Board.

Exhibit 18: HHI by Category and	Region 2021			
	VGT	EST	NTI	HNDL
	HHI	HHI	HHI	HHI
Region 1	-	-	-	-
Region 2	-	-	-	-
Region 3	53.0	52.3	55.3	57.6
Region 4	804.5	830.9	724.6	768.7
Region 5	510.6	534.9	446.7	456.3
				/
Statewide	196.2	207.5	160.9	168.8
Source: Illinois Gaming Board, Christianser	n Capital Advisors, I	LLC		

This is a good example in that all four criteria fall within the higher end of a 100-200 change in HHI range (i.e., in a moderately concentrated market) as described above.

As discussed in the section of this report *Hierarchy of the 11 Criteria Rule*, CCA recommends that measures of capacity take precedence over measures of performance. If these Terminal Operators merged HHIs for VGTs and Licensed Establishments average to 201.85. Combined with the significant increase in concentration in Regions 4 and 5 that would occur should this hypothetical transaction be approved leads us to conclude that the structural presumption should be applied and that in the absence of persuasive evidence that the transaction is unlikely to enhance market power and/or agreements that the merging parties agree to divestures to lower the change in market concentration (particularly in Regions 4 and 5) the merger should be enjoined.

THE IMPACT OF LARGE GROUPS OF ESTABLISHMENTS (I.E., VIDEO CAFÉ GROUPS/CHAINS) ON MARKET CONCENTRATION

While it is generally accepted that the Illinois Legislature intended to allow VGT terminals to operate at existing restaurants, bars, and other "pouring" establishments, some Illinois companies are taking advantage of the lack of a specific provision in the VGA limiting licenses to pre-existing or predominantly "pouring" establishments to open small venues, "Casino Cafés" or "Gambling Parlors", with the primary purpose of operating VGTs. These Casino Cafés are only required to have a liquor license and offer snacks and beverages to operate VGTs.

One such chain, Dotty's, which also operates VGTs in several other states, was one of the first to enter the market, announcing in 2013 that it planned to open 150 locations in Illinois. Opponents claim that these Casino Cafés subvert the spirit of the VGA, which they maintain was to help rejuvenate the restaurant and bar industry after indoor smoking was prohibited. Café operators claim on the other hand that they are rejuvenating traffic in formerly empty store fronts, creating hundreds of jobs, and contributing millions of dollars to the local economy. In response to the recent proliferation of chains and cafés, Lake County changed its liquor law to require that at least 60% of an establishment's revenue come from liquor and no more than 10% of space can be dedicated to VGT gambling.

The majority of Casino Cafés are run by a few operators. Illinois Café and Service Company operates the above-mentioned Dotty's brand, and in 2019, Illinois Café and Service Company purchased Laredo Hospitality's Cafes (which include the Shelby's and Stella's brands). Blackhawk Restaurant Group, the second largest, operates the Betty's, Penny's, Emma's and Jena's brands

In Appendix C, CCA has filtered the TOCM database to present all Licensed Establishment owners of more than 10 locations together with the Terminal Operators servicing their VGTs in 2021. Truck stop chains as well as video cafés are included in Appendix C.

Exhibit 19 summarizes these data for the two largest chains operating VGTs in Illinois: Blackhawk Restaurant Group (68 Licensed Establishments in 2021) and Illinois Café and Service Company including the Shelby's and Stella's brands (87 Licensed Establishments in 2021).

Appendix C and Exhibit 19 show that although each Licensed Establishment could in theory negotiate a Use Agreement with any Terminal Operator, most of these chains entered into agreements with one or two.

Exhibit 19 shows that VGTs at Blackhawk restaurants are all serviced by J&J Ventures. Illinois café locations either utilize Gold Rush or Midwest SRO as Terminal Operators. The more detailed analysis in Appendix C shows a similar trend among chains of Licensed Establishments: These chains most often contract with only one or two Terminal Operators. Given this fact, the rise of cafés and chains is likely a significant contributor to concentration within the VGT industry, which may increase with time if these chains and cafés drive other Licensed Establishments out of business.

CCA consequently recommends that the Board monitor these data and their contributions to market concentration in its annual review. If these chains and cafes are found to be contributing to

increased market concentration of Terminal Operators, the Board could consider adopting a rule similar to Lake County.

The way the existing database is constructed, however, makes this process somewhat cumbersome. CCA had to sort the Licensed Establishments by venue name and manually combine them into summary spreadsheets, as shown in Exhibit 19. To make this process easier and automatic, the Board could implement one of two possible solutions.

Currently for Licensed Establishments that have more than one location the database lists the venue name along with the license number or the location. This information (license #, location) is available in other database fields, so it is redundant information. If the venue name were changed to a consistent value, for example "Blackhawk Restaurant Group, LLC" without the license number, the data could be automatically sorted by that field to include only those entries. Alternatively, another solution would be to add a new field to the database that assigns either a name or a number for the owners of License Establishments regardless of venue name, which then could also be filtered or sorted by any spreadsheet or database application.

Exhibit 19: Two Largest Illinois VGT Establishment Operators by Location and Terminal Operator Source: Illinois Gaming Board, Christiansen Capital Advisors, LLC

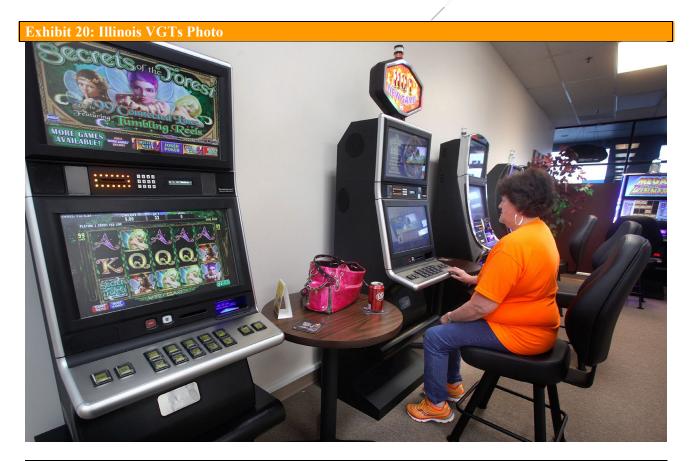
Sum of Spot Count(VGTs) 2021 Sum of Spot Count(VGTs) 2021 Gold Rush J&J Ventures in usen ents Milwest SRO Row Labels Illinnis Cafe & Service Company, LLC 120712262 Row Labels Gaming Illinois Cafe & Service Company, LLC 130700232 Illinois Cafe & Service Company, LLC 130700435 Blackhawk Restaurant Group LLC 130700177 6 Blackhawk Restaurant Group LLC 130702144 6 Illinnis Cafe & Service Company, LLC 130700529 Blackhawk Restaurant Group LLC 140703073 6 Illinnis Cafe & Service Company, LLC 130702245 Illinnis Cafe & Service Company, LLC 130702734 Blackhawk Restaurant Group LLC 160700764 6 Illinois Cafe & Service Company, LLC 130702735 Blackhawk Restaurant Group LLC 160702376 6 Illinois Cafe & Service Company, LLC 130702736 Blackhawk Restaurant Group LLC 160703877 6 Illinois Cafe & Service Company, LLC 130703486 Blackhawk Restaurant Group LLC Se 120712263 6 Illinnis Cafe & Service Company, LLC 130704510 Illinnis Cafe & Service Company, LLC 130704514 Illinnis Cafe & Service Company, LLC 130704517 Blackhawk Restaurant Group LLC Se 120712349 6 Blackhawk Restaurant Group LLC Se 120712571 6 Illinnis Cafe & Service Company, LLC 130704558 Blackhawk Restaurant Group LLC Se 120712758 6 Illinois Cafe & Service Company, LLC 130704838 Blackhawk Restaurant Group LLC Se 120712924 6 Illinnis Cafe & Service Company, LLC 130705417 Illinois Cafe & Service Company, LLC 130705588 Illinois Cafe & Service Company, LLC 130705960 Blackhawk Restaurant Group LLC Se 120712967 6 Blackhawk Restaurant Group LLC Se 130700046 6 Illinnis Cafe & Service Company, LLC 13070596 Illinois Cafe & Service Company, LLC 130706367 Blackhawk Restaurant Group LLC Se 130700237 6 Illinnis Cafe & Service Company, LLC 140700005 Blackhawk Restaurant Group LLC Se 130701316 6 Illinnis Cafe & Service Company, LLC 140700373 Blackhawk Restaurant Group LLC Se 130702145 6 Illinois Cafe & Service Company, LLC 140700594 Blackhawk Restaurant Group LLC Se 130702146 6 Illinnis Cafe & Service Company, LLC 140700666 Blackhawk Restaurant Group LLC Se 130702147 6 Illinois Cafe & Service Company, LLC 140701122 Blackhawk Restaurant Group LLC Se 130702439 6 Illinnis Cafe & Service Company, LLC 140701148 Illinnis Cafe & Service Company, LLC 140702106 Blackhawk Restaurant Group LLC Se 130702440 6 Illinnis Cafe & Service Company, LLC 140702257 Illinnis Cafe & Service Company, LLC 140702257 Illinnis Cafe & Service Company, LLC 150703176 Blackhawk Restaurant Group LLC Se 130702815 6 Illinois Cafe & Service Company, LLC 170700146 Blackhawk Restaurant Group LLC Se 130702951 6 Blackhawk Restaurant Group LLC Se 130702952 6 Illinnis Cafe & Service Company, LLC 170700856 Illinnis Cafe & Service Company, LLC 170703473 Blackhawk Restaurant Group LLC Se 130703229 6 Illinois Cafe & Service Company, LLC 190701035 Shelby's - Bradley 944 Kinzie, LLC 6 Blackhawk Restaurant Group LLC Se 130703230 6 Blackhawk Restaurant Group LLC Se 130703329 Shdby's - Brewster Creek, LLC Shdby's - DeKalb, LLC 6 Blackhawk Restaurant Group LLC Se 130703334 6 Shelby's - Kankakee Meadowview, LLC Blackhawk Restaurant Group LLC Se 130703335 6 Shelby's - Presidential Plaza, LLC Blackhawk Restaurant Group LLC Se 130703407 6 Shelby's - Romeoville Creekside Plaza LLC Blackhawk Restaurant Group LLC Se 130703408 Shelby's - Roselle Road Hoffman Estates, LLC Shelby's - Roselle Road, LLC 6 Blackhawk Restaurant Group LLC Se 130704289 6 Shelby's - Shappes at Glendale Heights, LLC Shelby's - South Cicero, LLC Blackhawk Restaurant Group LLC Se 130704382 6 Blackhawk Restaurant Group LLC Se 130704586 6 Shelby's - The Courtvard of Lake Zurich LLC Shelby's - Villa Center, LLC Shelby's - Wankegan Lewis Market, LLC Blackhawk Restaurant Group LLC Se 130705845 6 6 Blackhawk Restaurant Group LLC Se 130706171 6 STELLA'S - BALLARD DES PLAINES, ILC 6 Blackhawk Restaurant Group LLC Se 130706172 6 Stella's - Berwyn, LLC Blackhawk Restaurant Group LLC Se 130706517 6 Stella's - Brentwood Commons LLC Stella's - Broadview, LLC STELLA'S - BROOKSIDE PLAZA, LLC Blackhawk Restaurant Group LLC Se 130706518 6 Blackhawk Restaurant Group LLC Se 140701060 6 Stella's - Commons of Chicago Ridge, LLC Stella's - Concorde Green 1, LLC 6 Blackhawk Restaurant Group LLC Se 140701843 6 Blackhawk Restaurant Group LLC Se 140701845 6 Stella's - Flumwood Park LLC Stella's - Four Cities, LLC Blackhawk Restaurant Group LLC Se 150700143 6 Stella's - Fox Lake Retail Center, LLC Blackhawk Restaurant Group LLC Se 150701651 6 Stella's - Hickory Palos Square, LLC 6 Blackhawk Restaurant Group LLC Se 150701652 6 Stella's - Hilknest Shopping Center, LLC Stella's - Hoffman Village Shopping Center, LLC Stella's - Lake in the Hills, LLC Blackhawk Restaurant Group LLC Se 150701654 6 Blackhawk Restaurant Group LLC Se 150702324 6 Stella's - Lexington Commons, LLC Blackhawk Restaurant Group LLC Se 150702325 6 Stella's - Leyden Shopping Center, LLC Blackhawk Restaurant Group LLC Se 150702816 6 Stalla's - Marketplace at Datien, LLC Stella's - McHenry Plaza, LLC Stella's - North Park, LLC Blackhawk Restaurant Group LLC Se 150702992 6 6 Blackhawk Restaurant Group LLC Se 160700763 6 Stella's - Oak Lawn State Road Plaza, LLC Blackhawk Restaurant Group LLC Se 160700765 6 Stella's - Oakbrook Terrace, LLC Blackhawk Restaurant Group LLC Se 160702377 6 Stella's - Oswego, LLC Stella's - Palos Hills, LLC 6 Blackhawk Restaurant Group LLC Se 170703404 6 6 Stella's - Plano, LLC Blackhawk Restaurant Group LLC Series WCMorton 6 Stella's - Plaza Westlake, LLC Blackhawk Restaurant Group LLC SPMerrionettePark 6 Stella's - Prospect Heights, LLC Blackhawk Restaurant Group, LCC Series TPNRiversid 6 Stella's - Quarry Plaza, LLC Stella's - Randall Pointe, LLC Blackhawk Restaurant Group, LLC S 130700016 6 Stella's - Regency Plaza, LLC Blackhawk Restaurant Group, LLC S 130701886 6 Stella's - Round Lake Court, LLC Blackhawk Restaurant Group, LLC S 130702121 6 Stella's - St. James Crossing, LLC 6 Blackhawk Restaurant Group, LLC S 130702143 6 Stella's - Steams Crossing, LLC Stella's - Thatcher Woods, LLC Blackhawk Restaurant Group, LLC S 130702441 6 Second S - Indey Park Commons, II.C Stella's - Tinley Park, II.C Stella's - ^{Man} Blackhawk Restaurant Group, LLC S 130702604 6 Blackhawk Restaurant Group, LLC S 130702804 6 Stella's - Villa Oaks, LLC Stella's - Westchester, LLC Blackhawk Restaurant Group, LLC S 130703328 6 Blackhawk Restaurant Group, LLC S 130703682 6 Stella's - Westview Plaza LLC Stella's - Wheeling Lynn Plaza, LLC STELLA'S BALLARD & POTTER DES PLAINES LLC Blackhawk Restaurant Group, LLC S 130704323 6 6 Blackhawk Restaurant Group, LLC S 130705201 6 Stella's Hawthome Works LLC STELLA'S ON STATE STREET, INC. Blackhawk Restaurant Group, LLC Series RSPSavoy 6

THE IMPACT OF CASINO AND SPORTS WAGERING LICENSEES THAT ALSO HOLD VGT OPERATOR LICENSES

CCA evaluated how casino owner licensees and/or sports wagering licensees that also hold video gaming Terminal Operator licenses may impact the economic concentration analysis described in this report and proposes a methodology and criteria for measuring and addressing such impacts on undue economic concentration within the Illinois video gaming market.

The Product: EGDs and VGTs

From the gambler's point of view Video Gaming Terminals are virtually indistinguishable from casino slot machines (Exhibit 20). One minor difference is that many VGT machines are multi-game whereas casino EGDs are predominantly single game machines. This feature allows VGT operators to offer a greater selection of game types within the strict limits on the number of VGTs per location. Another, more meaningful difference is that unlike casino slot machines the maximum wager per VGT play may not exceed \$4, and no cash award for the maximum wager may exceed \$1,195.³⁴



Source: The State Journal-Register File Photo

³⁴ Upon approval of the IGB, video gaming sites can implement "In-location Bonus Jackpots." These cumulative, or progressive, jackpots that can build as high as \$10,000.

The Market for Gaming Dollars

Many commentators on gaming in Illinois have discussed the predicted or observed impact of VGTs on casino gaming in Illinois. The Commission on Government Forecasting and Accountability ("The Commission") in the 2021 edition of its report "Wagering in Illinois" is an example. This report is compiled annually by the Commission in accordance with Senate Resolution 875 for the purpose of examining legally sanctioned forms of wagering in Illinois to determine their economic impact as well as the potential for further expansion of the gaming industry.³⁵ In the section on Video Gaming Terminals the report states the following:

"The proliferation of video gaming across the State appears to have had a detrimental impact on the casino industry. Since video gaming began in FY 2013, the total AGR of Illinois' ten casinos has fallen in every subsequent fiscal year. Although the recent casino declines of-30.0% in FY 2020 and -4.8% in FY 2021 are in large part due to the pandemic, the availability of video gaming throughout the State may be why Illinois casinos have struggled to recover in FY 2021 like other neighboring states have done... The numbers appear to show that when Illinois gamblers returned to gamble, they did so at the local video gaming establishments rather than the casinos."³⁶

Perhaps aware that correlation does not necessarily mean causation, the authors of "Wagering in Illinois" are careful and precise in their language, qualifying the observed growth in VGT gaming and decline in casino revenue with the word "appears."³⁷

Exhibit 21 augments the Commission's analysis with a direct comparison of VGT, EGD, and Table Games revenue (The "Wagering in Illinois" report looks only at total casino revenues compared to VGT revenues). Exhibit 21 excludes the pandemic-impacted years 2020 and 2021. The results presented in Exhibit 21 further support the thesis that VGT gaming has diverted business from Illinois casinos, particularly slot machines or EGDs. After VGT gaming commenced in Illinois in late 2012, EGD revenues in the State began a slow and steady decline. In contrast, table game revenue continued to grow at a moderate rate, with the exceptions of 2018 and 2019, when table games revenue declined by approximately \$3 million.

³⁵ Commission on Government Forecasting and Accountability. "2021 Update Wagering in Illinois."

https://cgfa.ilga.gov/Upload/2021_wagering_in_il.pdf

³⁶ *Ibid*. Page 46.

³⁷ This does not mean, however, that correlations are not useful. Correlations must first be confirmed as real, then every possible causative relationship must be systematically explored. In the end, correlation **alone** cannot be used as conclusive evidence for a causeand-effect relationship. The Granger causality test is a statistical hypothesis test for determining whether one time series is useful in forecasting another. Nobel Laurate and Econometrician Sir Clive Granger argued that causality in economics could be tested for by measuring the ability to predict the future values of a time series using prior values of another time series. "Causality" in this sense is a bit of a misnomer, as the Granger-causality is better described as "precedence". Rather than testing whether X causes Y, the Granger causality tests whether X accurately forecasts Y.

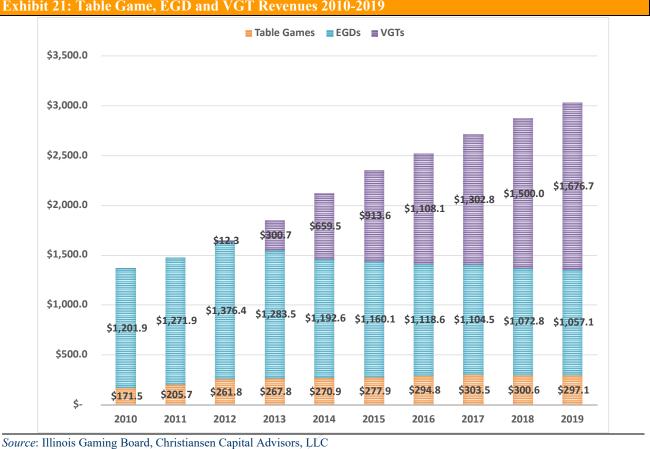


Exhibit 21: Table Game, EGD and VGT Revenues 2010-2019

VGT and EGD Suppliers

Exhibit 22 presents the licensed distributors of VGTs in Illinois (previously presented in Exhibit 5) and the licensed suppliers of casino slot machines (referred to as EGDs in the Board's reports). As shown in the exhibit, with a few exceptions the manufacturers and suppliers of VGTs and EGDs in Illinois are virtually the same. In other words, the vast majority of VGTs and EGDs in Illinois are provided by the same few companies.

EGD
Suppliers
AGS, LLC
Ainsworth Game Technology, Inc.
Aristocrat Technologies, Inc.
Everi Games, Inc. (formerly Multimedia Games, Inc.)
IGT
Incredible Technologies, Inc.
Interblock USA LLC
Konami Gaming, Inc.
Novomatic Americas Sales LLC
Patriot Gaming & Electronics, Inc.
SG Gaming, Inc. d/b/a Scientific Games
SUZOHAPP Gaming Solutions, LLC.

Survey Data

A National Council on Problem Gambling (NCPG) survey conducted in April 2021 found that 37% of Illinois respondents spent money on slot machines, VGTs, or gambling machines of other kinds. The NCPG lumped casino slot machines and VGTs together as essentially similar activities.³⁸

As the NCPG report indicates, gamblers are likely to regard casino slot machines and VGTs as similar gambling activities. Both are machine gambling. Both are played in bricks-and-mortar facilities. Both appeal to similar or identical consumers. There is no reliable basis for sharp distinctions between either casino slot machines and VGTs as gambling devices; or casino slot gaming and VGT gaming as gambling activities (consumption); or the demographics of Illinois casino slot players and VGT players; or the geographic location(s) of VGTs and casino slot machines.

Sports wagering and casino table games differ materially from machine gaming and should not be counted as "close substitutes," even though there may be overlap between players in that individual players may participate in sports wagering and/or casino table games as well as machine gaming.

VGTs and EGDs are Close Substitutes

In microeconomics, two goods are substitutes if they can be used for the same purpose by the consumer. Butter and margarine are classic examples of substitute goods.³⁹ Economic theory describes two goods as being close substitutes if three conditions hold:⁴⁰

³⁸ National Survey of Gambling Attitudes and Gambling Experiences (NGAGE). https://www.ncpgsurvey.org/

³⁹ "What are substitute goods? Definition and examples". Market Business News. https://marketbusinessnews.com/financial-glossary/substitute-goods-definition-meaning/

⁴⁰ D. Besanko, D. Dranove, S. Schaefer, M. Shanley (2013). Economics of Strategy. United States of America: John Wiley & Sons. p. 168. ISBN 9781118273630.

- 1. products have the same or similar performance characteristics
- 2. products have the same or similar occasion for use and
- 3. products are sold in the same geographic area

In differentiated product industries, some products can be very close substitutes and compete strongly with each other, while other products are more distant substitutes and compete less strongly. Close substitute goods may have slight differences in characteristics. The sellers of close substitute goods are in direct competition with each other.⁴¹

In the *Horizontal Merger Guidelines*, homogenous products are considered to be perfect substitutes and buyers perceive no actual or real differences between the products offered by different firms.⁴² Illinois video gaming terminals (VGTs) and casino slot machines satisfy the definition of close substitutes and were it not for restrictions placed on VGT establishments limiting the total number of machines, bet and payout limits would likely even qualify as "Homogenous Goods."

Taken as a whole, CCA believes that the evidence presented above provides convincing if not conclusive evidence that VGTs and EGDs are close substitutes. Consequently, CCA recommends that casino EGD machines (but not table games or sports betting which are imperfect substitutes) and their owners should be counted in an assessment of market concentration.

Joint Ownership of Terminal Operators and Casinos

To accurately assess the concentration of VGTs and EGDs Statewide and by region consideration must be given to joint ownership of casinos and Terminal Operators. In recent years some Illinois casino licensees have purchased or acquired an interest in Illinois Terminal Operators. A brief listing of these transactions is included below:

- In July of 2015, Penn Entertainment entered into a definitive agreement to acquire Illinois Gaming Investors, LLC dba Prairie State Gaming ("PSG") in an all-cash transaction.
- In May 2016, Delaware North, (owner of Jumer's Casino at the time)⁴³ completed the acquisition of GEM (Gaming & Entertainment Management Illinois LLC), the third largest VGT route operator in Illinois.
- In June 2018, Boyd Gaming Corporation completed its acquisition of Lattner Entertainment Group Illinois, LLC, the eight largest Terminal Operator in Illinois.

Designating casino slot machines as close substitutes for VGTs materially changes both the market supplier population and market shares. The HHI for VGTs (with EGDs) decreases from 1,987.5 to 1,505.8, while the HHI for number of establishments decreases from 1,992.3 to 1,987.4 (because casinos operate many machines in one establishment the correlation between the number of machines and establishments is substantially weakened), the HHI for NTI decreases substantially from 1,763.2 to

⁴¹ Glossary of Industrial Organisation Economics and Competition Law, compiled by R. S. Khemani and D. M. Shapiro, commissioned by the Directorate for Financial, Fiscal and Enterprise Affairs, OECD, 1993.

⁴² Ibid.

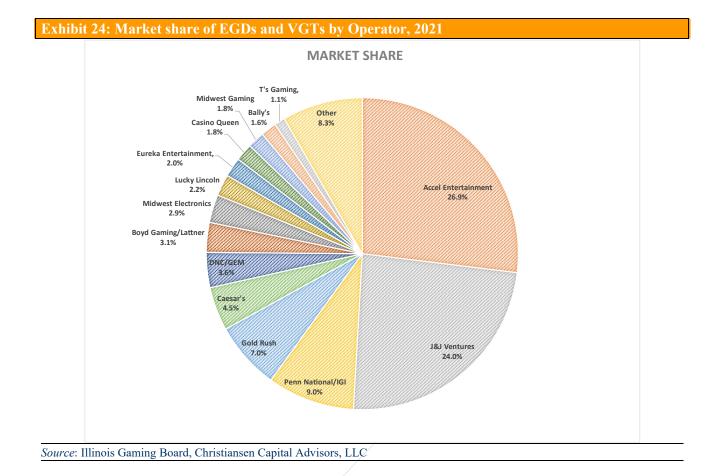
⁴³ In June 2021, Delaware North sold Jumer's to Bally's Corporation for \$120 million. The property was rebranded as Bally's Quad Cities in September 2021.

oit 23: The HHI by Cate	gory with VGTs an	d EGDs and Re	egion 2021				
	HHI Sco	HHI Scores by Region					
	VGT	VGT EST		HNDL			
	HHI	HHI	HHI	HHI			
Region 1	1,351.2	1,518.1	1,818.8	1,743.7			
Region 2	1,561.9	2,027.3	1,395.0	1,424.8			
Region 3	1,480.0	2,201.4	1,383.9	1,421.4			
Region 4	2,408.2	2,344.6	2,120.2	2,254.9			
Region 5	2,258.8	3,210.7	2,000.9	2,063.9			
_							
Statewide	1,505.8	1,987.4	1,145.1	1,186.2			
: Illinois Gaming Board, Chris	tiansen Capital Advisors,	LLC					

1,145.1, and the Amount Played (or handle) HHI decreases from 1,849.1 to 1,186.2 (Exhibits 14 and 23).

Furthermore, as shown in Exhibit 24, combining VGTs and EGDs meaningfully changes the top suppliers of machines in Illinois. While Accel Entertainment and J&J Ventures remain the largest machine providers, their share of the market decreases to just over 50% in 2021 (compared to 60.5% when only VGTs are counted) and Penn Entertainment/Illinois Gaming Investors becomes the third largest supplier with a 9% share. Gold Rush becomes the 4th largest Terminal Operator with a 7% share, compared to 8.3% when only VGTs are counted (Exhibits 6 and 24).

Appendix D provides the full 2021 report from the TOCM for all regions and categories in calendar 2021 when EGDs and VGTs are combined. Exhibit 24 summarizes the resulting market shares from Appendix C results in pie chart format.



In Exhibit 25 CCA utilizes the TOCM to construct a summary of Statewide HHIs by category for the years 2012 to 2021 including both VGTs and EGDs. When compared to Exhibit 15 (which includes only VGTs) the HHIs across all four categories have increased since 2019, but not to as large an extent when only VGTs are included.

Exhibit 25: Hist			~J	enreger j)
VGTs + EGDs	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
HHI Score (VGTs)	1,297.8	557.0	519.7	587.4	658.0	765.5	869.6	1,095.3	1,344.6	1,505.8
Y/Y Change in HHI		(740.8)	(37.3)	67.8	70.6	107.5	104.1	225.7	249.4	161.1
Establishments	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
HHI Score (ESTs)	955.6	699.3	740.2	738.8	822.4	987.1	1,103.6	1,490.5	1,738.0	1,993.2
Y/Y Change in HHI		(256.3)	40.9	(1.4)	83.6	164.7	116.5	386.9	247.6	255.1
NTI	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
HHI Score (NTI)	1,726.4	1,186.3	827.8	757.7	712.5	715.8	823.7	844.0	939.5	1,172.0
Y/Y Change		(540.1)	(358.5)	(70.1)	(45.1)	3.2	108.0	20.3	95.5	232.5
HANDLE	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
HHI Score (HNDL)	1,655.7	1,096.0	749.9	691.6	658.1	679.4	798.4	829.9	976.6	1,213.6
Y/Y Change		(559.7)	(346.1)	(58.3)	(33.4)	21.3	118.9	31.5	146.7	237.0

Additional rules the Board could consider with regard undue economic concentration in the VGT industry

Some additional rules or measure the Board could consider to alleviate the degree of concentration in VGTs markets include:

- Section 1800.320 (a)5 Minimum Standards for Use Agreements contains a provision that releases the video gaming location from any continuing contractual obligation to the terminal operator in the event that the terminal operator has its license revoked or denied, has its renewal denied, or surrenders its license; this Rule could be amended to contain a similar provision in the event of a change of control or ownership of a Terminal Operator.
- If market concentration continues to increase the Board could consider lowering the license fee (currently \$5,000) for Terminal Operators, and/or establish a credit-back system whereby Terminal Operators could recoup the license fee from operations.
- The Board could consider amending Section 1800.320(a)8 to decrease the maximum term of Use Agreements (currently eight years).
- If chains and cafés are found to be contributing to increased market concentration (above current levels) of Terminal Operators, the Board could consider adopting a rule similar to Lake County requiring that at least 60% of an establishment's revenue come from liquor and no more than 10% of space can be dedicated to VGT gambling.

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