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# **An Overview of Sports Betting Regulation in the United States**

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**Abstract:** The United States employs an *ad hoc*, unconventional method of regulating sports betting, banning it almost everywhere while granting a monopoly to firms in a single state, Nevada. This approach encourages illegal sports betting markets, ignores negative externalities, and generates welfare losses among the large population of responsible recreational gamblers. I review the current state of sports betting regulation in the U.S. and assess its economic viability in advance of the Supreme Court of the United States decision on the landmark *Christie v. National Collegiate Athletic Association* case.

**Keywords:** sports betting, PASPA, UIEGA

**JEL Codes:** K23, L83, Z21

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## 1. Introduction

People enjoy betting on sporting events. Sports betting can be traced back to the ancient Greeks and Romans who bet on events like the Olympic Games and horse racing in the Circus Maximus. Currently, legal sports betting exists in Europe, Australia, Mexico, and many Caribbean countries. Online sports betting frequently occurs and the existence of online bookmakers generates a substantial “grey” market in which residents of countries with an unclear regulatory environment can still place bets with regulated, reputable online bookmakers.

United States represents a notable exception. In the U.S. sports betting is regulated by a series of poorly coordinated laws that make betting on an individual sporting event illegal almost everywhere while granting a full exemption in a single state and making betting on multiple sporting events legal in two other states. Online sports betting is also regulated in the U.S., although the regulation primarily prohibits the electronic transfer of funds for gambling, and does not make the act of sports betting itself illegal. This effectively constitutes a ban on access to online bookmaking in the United States.

The regulatory environment in the United States may soon change. The Supreme Court of the United States (SCOTUS) agreed to hear the landmark *Christie v. National Collegiate Athletic Association* case which attempts to overturn The Professional and Amateur Sports Protection Act (PASPA), the federal law regulating sports betting, in December 2017. A favorable SCOTUS decision on this case could radically change sports betting in the United States. This paper reviews the current regulation of sports betting in the United States from an economic perspective.

Some regulation of gambling can be justified on economic grounds. Gambling generates negative externalities. A small fraction of participants in gambling markets experience extreme financial, psychological, or physical distress because they cannot control their actions in gambling markets, resulting in life-altering problems for these individuals and often for their family and friends. The annual prevalence rate of problem gambling in the United States has been estimated to be about 0.9% of active gamblers, and the lifetime prevalence rate 1.5% of active gamblers (National Research Council, 1999). While millions of recreational gamblers participate in gambling markets with no adverse consequences, a small group of consumers ruin their lives, and have a profound impact on the lives of people close to them. This represents a negative externality associated with gambling, legal or illegal.

Sports betting generates other negative externalities. The presence of sports betting markets creates an incentive for some individuals associated with sporting events – players, coaches, managers, trainers, and referees – to profit financially by betting on sports and then taking actions to affect events’ outcomes, called “match fixing” in the jargon of sports betting.

Rather than employing the standard approach of regulating and taxing a good or service that generates negative externalities, or completely banning the activity, U.S. policy makers have chosen to make sports betting fully legal in Nevada, and a limited form of sports betting legal in a small number of other states, while at the same time banning it in the rest of the country, including banning all forms of online gambling.

Predictably, this haphazard, unconventional approach generates widespread illegal sports betting markets throughout the country. Because they are illegal, and frequently prosecuted (Strumpf, 2003), estimating the size of the illegal sports betting market in the U.S. is difficult. Strumpf (2003) reported that in 1999 the bet volume on legal sports betting in Nevada was \$2.5 billion and the estimated bet volume in illegal sports betting markets in the U.S. was between \$80 billion and \$380 billion; between 32 times and 150 times the size of the legal U.S. sports betting market. These estimates include only traditional sports betting markets, not online sports betting. A 2016 estimate from the American Gaming Association, a lobbying organization for legal casinos, suggested that \$2 billion would be bet legally on (American) football games, and \$88 billion would be bet illegally, in the 2016-2017 football season.

## 2. The Current Regulatory Environment

States, and not the federal government, nominally exercise control over the regulation of U.S. sports betting. Despite this nominal state control, the federal government heavily regulates sports betting and betting on individual sporting events is legal in only one state, Nevada. Other limited forms of sports betting are legal in three other states. Betting on sporting events is banned in all other states.

183 licensed sports bookmakers were operating in Nevada in 2012 (Statistia, 2016). The sports betting industry in Nevada has grown substantially over the past 20 years; only 90 bookmakers existed in Nevada in 1990, and 119 were in operation in 1995. \$3.45 billion dollars were wagered with Nevada book makers on sporting events in 2012. Almost all this betting took place on (American) football (45% of dollars wagered), basketball (28%) and baseball (20%). Betting on all other sports accounted for only 6% of the dollars wagered at Nevada bookmakers. All this betting on sports took place in person. Nevada bookmakers cannot take bets online, and online betting on sports is illegal throughout the U.S.. In the one U.S. state where betting on individual sporting events is legal, the book making industry is large and growing despite lack of access to technology that has substantially increased sports betting in the rest of the world.

Consumers can legally bet on combinations of sporting events in Delaware, Oregon, and Montana. Delaware offers parlay betting on National Football League (NFL) games at casinos and through lottery outlets throughout the state. A parlay bet is a bet on different outcomes in three or more sporting events that occur in a given week. For a parlay bet to win, the bettor must correctly pick all three outcomes. In 2010 \$10.9 million was wagered on parlay bets on sporting events in Delaware; in 2015 this increased to \$38 million. In 2015, the Delaware State government received \$5.7 million in revenues from parlay betting on NFL games.

Parlay betting on sporting events remains legal in Oregon, where a parlay betting system similar to the one in place in Delaware was offered between 1989 and 2007. However, Oregon has not offered parlay betting on sports since the end of the 2006-2007 NFL season. Oregon agreed to end its sports betting game in order to host games played as part of the National Collegiate Athletic Association (NCAA) Men's Division I Basketball Championship tournament. The basketball arena in Portland, Oregon, was host to first and second round games in this tournament in 2009, 2012 and 2015.

The state run lottery in Montana also offers a limited form of sports betting on NFL game outcomes through a game called *Montana Sports Action* and betting on NASCAR stock car races. *Montana Sports Action* is a fantasy sports betting game where bettors select teams of football players each week and winnings are based on the performance of these players in games played in each week compared to the performance of teams selected by other bettors.

Even though states nominally control sports betting, and wagering activity has increased substantially in the few states where betting on sports is legal and betting opportunities exist, a number of federal laws have been passed over the years that effectively prohibits any expansion of sports betting beyond these four states.

Federal laws regulating sports betting in the U.S. consist of an antiquated, arbitrary, and ad hoc set of regulations that reflect a reactionary and poorly-thought out approach to regulating an economic activity that is popular and widely available in the rest of the world. It is difficult to imagine a more piecemeal, disjointed, and ill-conceived set of regulations. The federal law that effectively terminated a small but growing U.S. online bookmaking industry was hastily added on to a bill regulating the ownership and operation of U.S. ports at the last minute without any legislative debate or public discussion.

The oldest, and one of the most commonly enforced, federal laws regulating sports betting in the U.S. is the Wire Act of 1961. The law cannot be used to prosecute individual bettors, only bookmakers, and recent legal interpretations have limited the law to apply only to sports betting, and not to other forms of gambling (Rodenberg and Kaburakis, 2013). This law prohibits the transmission of wagers, or information assisting in the placing of wagers, over communication wires like telephone and telegraph lines and punishes violators with fines and imprisonment. In the age of the internet,

a key component of sports betting regulation in the United States is a 55 year old law intended to stop bookmaking by prohibiting telephone calls and telegraph messages that contain bets or information related to bets. This is analogous to regulating 21<sup>st</sup> century jet travel using a law intended to regulate horse drawn wagons.

Despite this antiquated nature, the Wire Act of 1961 has been applied to book makers operating outside the U.S. who take online bets from U.S. residents. In a 2001 case, *United States v. Cohen*, this law was used to prosecute the owner of an online sports book operating in Antigua, the World Sports Exchange (WSEX). The owner of the WSEX was successfully prosecuted under the Wire Act of 1961 for accepting bets from U.S. residents over the telephone and the internet.

Despite the applicability of the Wire Act of 1961 to online sports betting, the U.S. government took additional steps to prohibit internet-based sports gambling by U.S. residents by passing the Unlawful Internet Gambling Enforcement Act (UIGEA) in 2006. This law was added as a last minute amendment to a law regulating the ownership and operation of U.S. ports, the Security and Accountability for Every Port (SAFE Port) act without any legislative debate. Like the Wire Act of 1961, UIGEA does not apply to individual bettors; the law requires financial service providers like credit card companies to take measures to ensure that no monetary transactions between book makers and bettors can take place (Rodenberg and Kaburakis, 2013).

Before UIGEA, a U.S. resident interested in opening an account with a book maker operating in a country where sports betting was legal could open and fund an account with a credit card issued by a U.S. financial institution. When UIGEA finally came into effect in 2010, all major, publicly traded online book makers terminated all accounts held by U.S. residents and exited the U.S. sports betting market, effectively eliminating online bookmaking opportunities for U.S. residents.

UIGEA contains a number of exceptions explicitly not covered by the law, including fantasy sports, intrastate gambling (in order to exempt existing parlay sports betting in Delaware and the legal sports books in Nevada), and horse racing. The UIGEA exemption for fantasy sports has resulted in a boom in online “one day” fantasy football games, an activity that closely resembles the *Montana Sports Action* game offered in Montana that is considered gambling. Despite these exemptions, UIGEA does not formally define what constitutes unlawful internet gambling. A number of offshore online bookmakers have been successfully prosecuted through UIGEA.

The keystone legislation regulating sports betting in the United States is The Professional and Amateur Sports Protection Act (PASPA), which was signed into law in 1992. PASPA explicitly prohibits all sports betting in states where no legal sports betting existed at the time the law was passed and limits sports betting to the four states discussed above (Nevada, Delaware, Montana, and Oregon) in the exact form they took at the time the law was passed. PASPA limits government-sponsored sports betting (Rodenberg and Kaburakis, 2013). In U.S. legal parlance, the exemption granted to Nevada, Delaware, Oregon and Montana constitutes a “grandfather clause” that allows sports betting to continue in four states (Holden, et al, 2014). In addition to this exception, PASPA granted one state that did not permit sports betting in 1992, New Jersey, the opportunity to legalize sports betting and escape PASPA’s ban, provided that the state legislation was passed within one year of PASPA taking effect. New Jersey did not pass a law legalizing sports betting within this one year window.

PASPA is difficult to justify on both economic and legal grounds. In economic terms, PASPA grants Nevada a monopoly on betting on individual sporting events in the United States and bans it elsewhere; the law grants a monopoly on certain other forms of sports betting to three other states, all of which are located far from Nevada. Sports betting in Nevada and parlay sports betting in Delaware have grown substantially since the passage of PASPA. If betting on sports generates utility for bettors (Conlisk, 1993), then PASPA leads to consumer welfare losses for all U.S. residents outside Nevada and Delaware (and for those who cannot afford to travel to Nevada or Delaware) who would like to bet on individual sporting event but lack local access to legal sports betting opportunities.

On legal grounds, PASPA treats U.S. citizens differently by allowing residents of some states access to legal sports betting while denying this access to others, which appears to violate the Fourteenth Amendment of the U.S. Constitution, which guarantees equal treatment to all citizens. It also appears to violate the U.S. Constitution's Commerce Clause (Article I, Section 8, Clause 3) which requires Congress to pursue uniform regulation of commerce among the states. PASPA does not apply uniformly to all states (Rodenberg and Kaburakis, 2013).

Finally, PASPA grants the rights to enforce this ban on government-sponsored sports betting to sports leagues and the United States Department of Justice (DOJ). This provision is unprecedented and rests on shaky constitutional grounds (Roeske, 2013; Rodenberg, Kaburakis and Holden, 2014).

PASPA has faced numerous legal challenges over the years. In 2009 the State of Delaware passed a law that would have legalized betting on individual sporting events in the state, expanding sports betting opportunities beyond the parlay bets available in 1992.

### **3. Attempted Expansion and Legal Challenges**

Despite the failure to comply with the exception in PASPA, New Jersey has repeatedly attempted to challenge the law and gain the right to offer sports betting in the state. A 2009 suit brought by representatives of several online book makers was thrown out because the Plaintiffs lacked legal standing to represent the State of New Jersey. In 2011 New Jersey held a referendum on the legalization of sports betting in the state. The referendum passed by a wide 64%-36% margin. In 2012 the state passed a law allowing sports betting at casinos and race tracks in the state.

The four major U.S. professional sports leagues, the NFL, National Basketball Association (NBA), Major League Baseball (MLB) and the National Hockey League (NHL), along with the National Collegiate Athletic Association (NCAA) – the organization that oversees college athletics in the U.S. – immediately filed suit to block the law from taking effect. A judicial stay was issued preventing sports betting from taking place. The case has been tied up in the court system ever since, with the sports leagues generally prevailing. In response to unfavorable judicial outcomes the state re-drafted the law in 2014. In summer 2016 a federal appeals court upheld the lower court finding that PASPA prevents New Jersey from legalizing sports betting based on the 2014 version of the law. The only remaining option left for the law to go forward is the Supreme Court of the United States (SCOTUS.), which has not yet announced if it will hear the appeal.

U.S. professional sports leagues, and the NCAA, have ferociously opposed any attempt to expand sports betting to U.S. residents outside the four states specified in PASPA. These organizations have filed suit to stop any expansion of sports betting opportunities, including opposing the attempts by Delaware and New Jersey to offer legal sports betting. In addition, Las Vegas, Nevada (2010 metropolitan area population 1.8 million, the 30<sup>th</sup> largest metropolitan area in the U.S.) has no professional sports team in any of the four major U.S. leagues. The lack of a team in Las Vegas, which is larger than 13 metropolitan areas with existing teams, is generally attributed to the presence of legal sports betting in the city.

Sports leagues oppose expanded sports betting on the grounds that increased access to sports betting will irreparably damage the integrity of their core product, sporting events (Rodenberg, 2014). According to this argument, if U.S. residents have increased access to legal sports betting, parlay bets or bets on individual games, then fans will question the legitimacy of outcomes because increased access to gambling increases the potential to profit from “fixing” sporting events. In opposing increased expansion of legal sports betting, the sports leagues consistently and vehemently claim that allowing more U.S. residents to legally bet on NFL, NBA, NHL, MLB, and NCAA games will destroy the integrity of these sports.

This argument is difficult to defend on economic grounds. 2.8 million Nevada residents, along with any U.S. residents who travel to Nevada, already have the ability to bet on individual sporting events in all four sports leagues. Sports

bookmakers in Nevada handle more than \$3 billion in sports wagers each year. 945,000 residents of Delaware can place parlay bets on NFL games. If access to sports betting destroys the integrity of games played in these leagues, then why hasn't the existing access to such betting already damaged the integrity?

Sports betting is legal and widely available throughout Europe, and especially in the UK. The English Premier League, the Bundesliga, La Liga, Serie A, and other European football leagues appear to have a high degree of integrity, and many have huge international television audiences. If the EPL was viewed as lacking integrity, then how could it attract hundreds of millions of television viewers around the world? These leagues appear to profit from legal sports betting, as many teams have jersey sponsorships from bookmakers. There is also evidence that television audiences increase when viewers can bet on games (Humphreys, Paul and Weinbach, 2013).

Banning legal access to sports betting opportunities does not mean that no sports betting takes place in the U.S. outside Nevada. Illegal sports bookmaking is widespread in the U.S.. In a September 2016 Infographic, the American Gaming Association estimated that \$90 billion would be bet on NFL and NCAA football games over the course of the 2016 seasons; an estimated \$88 billion of that will be wagered with illegal bookmakers. A 2012 ESPN article reported that total illegal sports betting in the U.S. could exceed \$500 billion per year (Millman, 2012). If sports fans want to bet on games, banning legal access to sports betting will not eliminate this economic activity, it will simply drive it into the underground economy.

Of course consumers suffer from reduced quality of their gambling experience when placing bets with illegal bookmakers. Strumpf (2003) describes illegal bookmaker operations in detail. Relative to other legal options available to bettors in the rest of the world, customers of illegal U.S. bookmakers face the possibility of arrest if caught wagering with an illegal bookmaker, reduced access to the service in terms of convenience and time required to place bets, reduced access to different types of bets, and increased uncertainty about payment of winnings. In addition, Strumpf (2003) documents ways in which illegal bookmakers offer systematically worse odds to certain customers who are known to prefer betting on specific teams. This would not take place if bettor were able to wager with legal, regulated bookmakers face-to-face or online.

Match fixing clearly occurs throughout the world, but it occurs relatively infrequently, and primarily takes place in relatively low-profile settings. The existing evidence of match fixing in the U.S. and Europe has generally not involved high-profile sporting events, and does not appear to have substantially eroded public confidence in the integrity of top-level sports leagues in either location.

Since leagues claim that match fixing is a threat to their integrity, and match fixing does occasionally take place, an understanding of the factors that explain why match fixing occurs can help put leagues' claims in context. Economists have developed models to explain match fixing as a rational choice by wealth maximizing individuals (Forrest and Simmons, 2003). Economic models of match fixing emphasize that potential match fixers, including players, coaches, and referees, take into account expected benefits from match fixing, expected costs, and the likelihood of being detected. The expected benefits are primarily financial, and derived from betting on games with predetermined outcomes due; some utility gains are also included to capture and satisfaction derived from successfully fixing a sporting event. Costs include direct costs in terms of fines if caught, indirect costs associated with ethical objections to this behavior, and lost future earnings if caught (lifetime bans are often imposed on detected match fixers). Expected outcomes are weighted by the expected probability of detection, or non-detection. The model predicts that an individual attempts to fix a match if the expected total gain from that action exceeds the expected total cost.

Several key predictions emerge from economic models of match fixing. First, lower current and future earnings derived from participating in sporting events is associated with a lower probability that any individual decided to fix a match. Players in leagues with low current and expected future salaries are more likely to fix matches than players with high current and expected future salaries. Referees, who typically earn less than players, are more likely to fix matches.

Second, the smaller the expected gain from match fixing, the less likely is match fixing to occur. This prediction has important implications for sports betting markets (Forrest, McHale and McAuley, 2008). Much of the financial gain from match fixing must be realized in betting markets. If there is no active betting market on a sporting event, then the match fixers cannot easily generate financial returns from fixing the outcome of the sporting event. If only individual participants (players, managers, or referees) are involved, then the expected financial gain from fixing the match will come from bets made by these individuals in an active betting market. If a second party pays an individual to fix a match, the total cost of fixing the match increases by an amount equal to the payment required to induce the participant to alter the match outcome, so the expected total return required to make match fixing profitable is larger. In either case, the financial gain from match fixing will be limited by the volume of bets placed on the sporting event.

The volume of bets placed on individual sporting events (football matches, basketball games, etc.) is referred to as the *liquidity* in that betting market. Sporting events with more bets, and higher value bets, placed on them are said to have more liquidity.

Consider attempts to fix two different sporting events: an NFL game where bookmakers take millions of dollars of betting volume (a high liquidity betting market) due to great interest on the part of many bettors, and an NCAA college football game between two obscure teams where bookmakers take only a few thousand dollars of betting volume on the game, due to lack of interest on the part of bettors. The potential financial gain from fixing the NFL game will be far greater than the potential gain from fixing the NCAA college football game, because the match fixer could bet hundreds of thousands of dollars on the NFL game without arousing much interest and, at most, a few thousand dollars on the NCAA football game. Potential financial gains are limited by the liquidity in the betting markets on individual contests.

Despite the claims of U.S. sports leagues, actual instances of match fixing in the U.S. is relatively rare, despite the longstanding existence of high liquidity sports betting markets in Nevada. This calls into question the notion that expanded access to legal sports betting opportunities will damage the integrity of U.S. sporting events.

The most prominent match fixing scandal in a U.S. professional league was probably the “Black Sox” fixing of the 1919 World Series, the championship series in MLB. Players on the Chicago White Sox baseball team allegedly fixed game outcomes in the 1919 championship series. The players were acquitted of wrongdoing in court but received lifetime bans from the league. Player salaries were relatively low in MLB during that era, and the owner of the White Sox, Charles Comisky, was notorious for paying players exceptionally low salaries. These circumstances support the predictions of economic models of match fixing.

The vast majority of match fixing incidents in the U.S. occur in college sports. These generally involve point shaving, a form of match fixing that involved manipulation of the final margin of victory, not the winner of the game. Most betting on American football and basketball games takes the form of point spread betting, where bettors wager on the final difference in points scored instead of the winning team. If the point spread on a basketball game is set by a bookmaker so that the favored team must win by 20 points for the bet to pay off, and a player, coach, or referee takes actions that lead the team to win by only 10 points, then “point shaving” takes place in that game.

U.S. college match fixing or point shaving scandals include the 1951 CCNY case involving players from four college basketball teams in New York City (City College of New York, New York University, Long Island University, and Manhattan College), the 1978 Boston College men’s basketball case, the 1985 Tulane University men’s basketball case, the 1994 Arizona State University men’s basketball case, the 2009 University of Toledo football and basketball case, the 2011 University of San Diego men’s basketball case. All of these involved criminal charges filed against players.

Point shaving means a team wins by a smaller margin and not that the team loses the game. This may generate less lost utility than other forms of match fixing that require a team to lose a game. Also, U.S. college athletes cannot receive any form of monetary compensation while participating in games; U.S. college athletes receive only free tuition, room, and board. Since these athletes earn no salary, economic models of match fixing predict that there would be more

match fixing in this setting, since the costs of being caught are much lower than for professional athletes who receive salaries.

Interestingly, the Arizona State case was detected by legal bookmakers in Las Vegas, Nevada, which is 300 miles from the Arizona State University campus in Phoenix. Several Las Vegas bookmakers noticed unusually large bet volume on Arizona State basketball games and alerted authorities.

The most recent match fixing scandal in U.S. professional sports involved an NBA referee, Tim Donaghy, who was convicted of fixing a number of NBA games in the 2006 and 2007 seasons. Donaghy was convicted of conspiracy and sentenced to 15 months in prison. NBA referees earn relatively low salaries compared to players, so this instance of match fixing also supports economic models of match fixing. Donaghy's match fixing was detected by illegal bookmakers (Hill, et al., 2014) and not by legal bookmakers in Nevada. Like in the Arizona State case discussed above, illegal bookmakers noticed unusual betting volume in NBA games refereed by Donaghy, as well as unusual streaks of luck by specific bettors in these games.

These specific cases highlight the relationship between liquidity in betting markets and the probability of detecting match fixing. Many match fixing events are detected because of unusually high bet volume on specific contests. As liquidity increases in sports betting markets, the likelihood of detection for any match fixing scheme declines. However, the existence of legal sports betting markets increases the likelihood of detection, since legal sports betting markets can be easily monitored.

Lack of liquidity in U.S. sports betting markets appears to be one factor limiting the incidence of match fixing in U.S. sports leagues. However, U.S. sports leagues are actively seeking to increase interest in their sports outside the U.S.. The NFL has been holding as many as three games per season in the UK, in Wembley Stadium, regularly since 2007 and also plays games in Mexico. Sports betting is legal in both countries. In 2016 an NFL game will also be played in Twickenham Stadium in London, expanding the number of UK venues hosting NFL games. Some reports of a permanent NFL team in London have appeared in U.S. media, but no official league announcement has been made to date.

The NHL played preseason games in Europe between 2000 and 2011, including games between NHL teams, and games between local teams and an NHL team. The NBA played 9 regular season games in London and Mexico City since 2011 and has more games scheduled in these countries with legal sports betting. MLB played 3 regular season games in Mexico in 1996, and one in 1999. MLB also played two exhibition games in Australia, where sports betting is legal, in 2014. NCAA college football games have been regularly held in Europe and the Caribbean since the 1970s, including games in Germany, UK, Ireland, and Italy. A regularly scheduled bowl game, the Bahamas Bowl, has been played in the Bahamas, where sports betting is legal, since 2014.

All U.S. sports leagues, including the NCAA, are attempting to increase interest in their games in countries where sports betting is legal. As interest in these U.S.-based sports leagues grows, liquidity in sports betting markets on U.S.-based sporting events will also grow in the UK, Europe, Australia and Mexico. While these U.S. sports leagues have successfully limited sports betting in the U.S., they clearly cannot expect to ban, or even slow, interest in betting on their games in countries where sports betting is already legal. Placing a permanent NFL team in London, or a MLB team in Mexico, will clearly increase liquidity in betting markets on NFL games in the UK and MLB games in Mexico, increasing the opportunity for match fixers to profit. It is difficult to reconcile sports leagues' opposition to any expansion of legal sports betting in the U.S. with their desire to increase interest in their sports, and potentially expanding to place permanent teams in countries with legal sports betting if integrity is the primary reason for the opposition to expansion of legal sports betting in the United States.

## 4. Conclusions

The regulation of sports betting in the U.S. can be thought of as an informative case study on how not to regulate an activity that produces negative externalities. In the U.S., legal sports betting exists in a few states, and illegal sports betting is widely available in all states where sports betting is banned. In Nevada, where sports betting is fully legal, the bookmaking industry has grown substantially over time. Any attempts to expand sports betting to include betting on individual games in other states where parlay betting is currently available, or to make sports betting legal in states where it is currently banned, have been stopped by opposition from professional sports leagues and legal actions. Implicitly, this expansion has also been blocked by the U.S. Congress, who could repeal or rewrite PASPA and or UIGEA at their discretion. The SCOTUS decision on *Christie v. National Collegiate Athletic Association* may change this radically.

The standard economic remedy for an economic activity that produces negative externalities is to regulate and tax, or in cases where the negative externality has substantial consequences, ban the activity. The U.S. has taken both actions, and effectively accomplishes neither. The ban on sports betting outside Nevada, Delaware, Oregon, and Montana appears to be ineffective. Unregulated sports betting takes place throughout the rest of the states, and bettors have reduced access to low quality betting services in these areas. The millions of U.S. residents outside Nevada who would like to bet responsibly on sporting events are unambiguously worse off because of this poorly devised regulatory environment. The small number of problem gamblers in these states still have access to illegal sports betting, which may intensify the negative financial, physical and psychological harm caused by their behavior. U.S. states forego tens of millions of dollars in tax revenues that could be generated from taxing legal sports betting (Kaburakis et al., 2015).

Fortunately, a clear, if unlikely, path toward a sensible U.S. regulatory environment exists. In theory, states retain the legal right to regulate sports betting as they see fit. Nevada has had legal, well-regulated sports betting market for decades. Nevada seems no worse the wear because of the existence of legal sports betting markets in the state. In fact, an NHL expansion team recently began playing in Las Vegas, and an NFL team, the Oakland Raiders, plans to relocate to Las Vegas in the next few years. These actions reduce the credibility of league objections to sports betting on the grounds that it threatens the integrity of the leagues and their core products.

In 2014, NBA commissioner Adam Silver published an opinion piece in the *New York Times* (Silver, 2014) arguing that betting on professional sports events should be legal in the United States. No other sports league official has ever made public statements remotely resembling this. Silver's article, and the presence of professional sports teams in a state with legal sports betting may signal a sea change in sports leagues' deep resistance to sports betting.

A legal decision from SCOTUS will soon take place. No matter what the court decides, the U.S. Congress could repeal existing legislation banning full sports betting outside Nevada at any time. It could repeal UIGEA at any time, opening up the lucrative online sports betting market to U.S. residents, and generating substantial tax revenues. However, the political will to make such sweeping changes does not appear to exist at this time.

If leagues are correct that expanding opportunities to wager on their games represents a dire threat to the integrity of their sports, then they appear to be pursuing policies that will create an environment in which such damage is much more likely to occur. All four of the major professional sports leagues in the U.S., and the NCAA which governs college sports, are actively trying to expand international interest in their contests, including holding an increasing number of contests in countries where sports betting is already legal and very popular.

Economic models of match fixing predict that this will increase the likelihood that match fixing will take place, if the increased interest in U.S. sports leads to increased worldwide liquidity in betting markets for U.S.-based sports. The most likely place for this increased match fixing to occur is in U.S. college sports, where athletes are paid no salaries and have their compensation limited to college tuition, room and board.

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