

# Informing the Public Debate: Economic Impacts of Casinos

Economic Benefits, Tax Regressivity, and Real Estate Impacts

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## Executive Summary

This document is the fifth in a series intended to inform policy debates on the potential development of a casino resort in the Greater Toronto Area (GTA). The series focuses on common debates that tend to occur during the expansion of gaming in a jurisdiction. In this report, our focus is on the extant academic research on the economic impacts of casino gaming. Specifically, we seek to clarify certain conceptual issues by drawing on the theoretical and empirical literature in this field.

The results of our review of literature on the economic impact of casinos suggest that the integrated-resort approach being pursued in the GTA is a “best practice” in terms of maximizing the economic impact of the potential facility. We expect a meaningful increase in economic growth over the short run, and the employment generated by the facility should produce wages well above those observed in non-unionized hospitality firms. We also found that the economic impact estimates produced by Ernst & Young (2012) generally appear to be reasonable, insofar as their assumptions prove to be correct, but may be subject to more (upside and downside) risk than was implied in their report.

We also found that the tax revenue generated from a GTA casino is likely to be regressive, albeit generally less regressive than lotteries. However, we note that if the tax revenue raised from casinos is used to benefit lower income groups, then the *net incidence* of the tax may actually be progressive rather than regressive. This could be done by funding projects that are disproportionately used by lower income groups, such as public transportation. We also note that regressive excise taxes are hardly unique to casinos. In fact, most other general sales taxes (such as the GST/HST) are typically found to have a regressive incidence.

Finally, our outlook on nearby property values is that no negative effects on prices should be expected from casino expansion in the GTA. Prior research suggests that there may in fact be moderate increases in both commercial and residential property values near the resort-casino. While the research literature is fairly consistent in supporting a non-negative impact, we find that the empirical findings are not sufficiently developed for us to estimate an average effect size for the GTA project in particular.

Throughout this series, we have attempted to sift through the complex claims made by various stakeholders by focusing on the findings that can be trusted most – those in the empirical, peer-reviewed academic literature. In addition, we have emphasized the importance of understanding differences *between* types of gambling when applying this literature – in this instance, the importance of understanding the potential impacts of an “integrated resort” casino, as these impacts tend to be different (and more economically beneficial) than those found with many other forms of gambling. Ultimately, this approach should help policymakers make informed decisions, using the most reliable and applicable information available.

## 1 Introduction

This document is the fifth in a series intended to inform policy debates on the potential development of a casino resort in the Greater Toronto Area (GTA). The series focuses on common debates that tend to occur during the expansion of gaming in a jurisdiction. Our intent is to not to advise on the immediate decision to permit or prohibit a casino resort, but rather to outline the relevant academic research pertaining to these issues, and then to provide reasoned applications to the unique economic and social environment in the Greater Toronto Area. This latter step is particularly important in policy considerations, since potential gaming jurisdictions can vary significantly in terms of market structure, amenities, population demographics, economic characteristics, and public health support systems.

In this fifth and final report, our focus is on academic research related to the economic impacts of casino gaming.<sup>1</sup> Specifically, we seek to clarify certain conceptual issues by drawing on the theoretical and empirical gaming economics literature. In addition, we provide a general critique of the methodology used by Ernst & Young in their economic impact study of a potential GTA casino (2012). Along with this critique, the sections that follow include a conceptual discussion of the direct economic impacts of casino expansion (including the quality of employment generated from casino gaming), the relative regressivity of casino tax revenue, and casino expansion effects on real estate values.

## 2 Background

In early 2012, the Ontario Lottery and Gaming Corporation (OLG) announced formal plans to develop a new casino in Greater Toronto. The plan, which is expected to elicit bids from large commercial gaming corporations, is projected to include an “integrated resort” property, combining hotel, restaurant, entertainment, retail, and convention facilities along with gaming amenities.

Presently, there are several forms of gaming available in the GTA, although there is no resort-style casino gaming within an hour’s drive of the downtown core. The nearest commercial resort-style casinos are Niagara Fallsview and Casino Rama, located well outside of the city limits, and there are OLG slot machines at more nearby racetrack casinos, such as Woodbine, Georgia Downs, and Ajax Downs.<sup>2</sup> Lotteries, pari-mutuel horse racing, bingo, and multi-game sports wagering are all accessible, and OLG has expressed its intention to roll out various forms of Internet gaming, beginning in 2013.

In engaging these debates, critics on both sides of the debate often cite ad hoc research that may or may not be entirely relevant to this particular market. With economic impact studies in particular, estimates, forecasts, and commentaries are rarely put into the proper context for the

<sup>1</sup> A prior paper in this series focused on the topic of cannibalization and complementary effects of casinos; this study differentiates itself by focusing on the expected direct economic effects of a Toronto casino.

<sup>2</sup> There is also a temporary casino at the CNE during a portion of the summer.

local economy. Clearly, these types of geographically diverse “studies” should not drive local policy; instead, wherever possible, policymakers should rely on peer-reviewed research that is put into the proper context for the local economy.

What follows in this paper is a carefully reasoned set of policy considerations, drawing on empirical results and theory from the most robust peer-reviewed studies available on the economic impacts of casinos. As we have mentioned throughout this series, there are significant challenges whenever one seeks to measure the economic impacts of gambling. In fact, policymakers should be immediately skeptical of claims made with absolute certitude, as scientific inquiries are, by their very nature, designed to be tentative, modest, and up-front about their limitations. In this paper we seek to provide clarity in the areas where such clarity exists in academic literature, and we express caution where academic results are less clear.

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### 3 Issues

#### 3.1 Economic Benefits

In previous papers, we have examined some of the social issues often associated with resort casinos (including crime and cannibalization), but it is also important to consider the anticipated economic benefits. The pre-eminent gambling economist, William Eadington, has written extensively on the economics of casinos, and in particular, resort-style casinos (1999, 2009). In doing so, he categorizes the economic benefits of casinos into three areas. The first, which is often underreported in public debates because of its intangibility, is the entertainment value that is experienced by the vast majority of patrons who gamble in moderation and seem to enjoy doing so – typically referred to as recreational or non-problem gamblers. Their benefit from this leisure experience (known as “utility” in economic speak) is often overlooked, but it is important to keep in mind. After all, the ability to (more or less) choose the goods and services that we purchase is widely held as the key economic force that drives free markets (and a basic right in Canadian society), and more choice tends to be a net positive for consumers (think of a town with only one restaurant – the addition of even one more restaurant ensures that residents do not have to eat the same food every night they go out and surely improves their leisure experience).

The second and third benefits described by Eadington are those that are more often reported in public debates, since they are much easier to quantify. These are the “ancillary economic benefits” of casinos and the tax revenue from casinos. Eadington describes the ancillary economic benefits from casinos as the “job creation, investment stimulation, tourism

development, economic development or redevelopment, urban or waterfront revitalization, or the improvement of the economic status of deserving or underprivileged groups.” (p.186)

The type of development currently being contemplated in the GTA is commonly called an “integrated resort,” and these are noted by Eadington to be particularly effective at generating jobs, economic development, and exports, as compared with casino-only complexes (1999, 2009). As we have noted in previous papers in this series, this is due in part to the direct impacts of these facilities’ non-gaming amenities, but it is also due to the synergistic effects that help these combined entities create a tourism draw to the region.

Although there has been little empirical work to quantify the first benefit described by Eadington (1999), some peer-reviewed research has been done to better understand the effect of the latter two on local economies. For instance, Walker and Jackson (1998) first found that casino gambling had a positive effect on economic growth (specifically personal income per capita), but a follow-up study using a longer period of study (Walker and Jackson, 2007) found no significant effects. The authors suggest that the most likely explanation is that in the short-run, casinos have a meaningful and significant effect on economic growth, but that this effect will gradually wear off over time. Another study examining the effects of casinos in the Gulf States after Hurricane Katrina by those same authors (Walker and Jackson, 2009), found further support for this explanation. In this article, the authors found that casinos had a positive impact on state-level economic growth.

Walker has since summarized the findings of his studies thusly:<sup>3</sup>

*“Consistent with our earlier papers, the Katrina study suggests casinos can indeed have a positive impact on state-level economic growth, at least in the short-term. Presumably, these effects come about from an amalgamation of capital and labor effects and the attraction of tourism. The available empirical evidence suggests that, indeed casinos do have a positive economic growth effect, although it may be short-lived. Obviously, the effect will vary depending on specifics of the jurisdiction and market.”*

In terms of the *quality* of employment that will be generated from casino-resorts, we caution that this is an area where it is difficult to generalize the statistics found in other studies. In the few academic studies that provide this type of data (which tend to focus on the U.S. economy) little is done to control for other aspects of the economy, such as tax rates, gratuities, or purchasing power parity. These are crucial factors needed to explain and generalize the true quality of the casino (and related industry) employment. However, we do note that there is some academic research that will inform the casino-resort employment quality debate. In a series of papers on the effect of unions on casino-resort wages, Waddoups (1999, 2000, 2001) finds that the presence of a union in a hotel-casino leads to significantly higher wages – the author

<sup>3</sup> Walker, D. M. (2009). The Economic Effects of Casino Gambling: A Perspective from the US. *Macao Polytechnic Institute Global Gaming Management Seminar*. Macao, CN: Macao Polytechnic Institute.

estimates wages to be 24% higher in these positions. As a number of unions have already expressed interest in the hospitality-related jobs that would be generated by a GTA casino-resort, we expect that a substantial share of the proposed development would be serviced by unionized employees. Therefore, we expect that wages will be set well above a minimum serviceable level.

Further, while we caution it is not a peer-reviewed study, these results are consistent with those found by the U.S. National Gambling Impact Study Commission (1999), which notes that resort-casinos in particular offer superior quality employment than comparable service sector jobs. The impact study commission notes:

*“The Commission also heard testimony quantifying job quality in the casino industry, and these data show that in terms of income, health insurance, and pension, casino jobs in the destination resorts of Las Vegas and Atlantic City are better than comparable service sector jobs... Within the casino industry, destination resorts tend to create more and better quality jobs than other kinds of casinos.”*

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### 3.1.1 Implications for the Proposed Toronto Market

The results of our review of the literature on the economic impact of casinos suggest that the integrated-resort approach being pursued in the GTA is a “best practice” in terms of maximizing the economic impact of the potential facility. Specifically, we anticipate that there will be a meaningful increase in economic growth over the short run, and the employment generated by the facility should produce wages well above those observed in non-unionized hospitality firms.

To date, one report has sought to estimate the economic impacts of the proposed GTA resort-casino (Ernst & Young, 2012). The economic impact estimates from the Ernst & Young report generally appear to be reasonable, insofar as their assumptions prove to be correct. However, we do wish to highlight some key additional risks – both positive and negative – that may not have been fully captured or expressed in this report.

First, projections of casino revenue are highly challenging to project accurately in what is effectively a new market with substantial latent demand (demand which currently lacks the supply to be observed). Since there has never been a casino in downtown Toronto, it is unclear how substantial this latent demand could be, both in terms of area residents and in the international high roller market (particularly in Asia). As an example of how this has occurred previously, when Las Vegas’ Mirage resort ushered in the mega-resort era in 1989, seven year junk bonds for the \$630 million project were paid off in 18 months due to the unforeseen high

demand. While we certainly might question whether Mirage-like success might ensue in Toronto, this dynamic creates both upside and downside risk in the forecasts.

Second, since casino gaming is generally a product that is a function of discretionary income, there is general economic risk that should be factored into the calculations. For example, strong growth in the U.S. economy may lead to a substantial increase in traffic from trans-border

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players, but a downturn would lead to macro- and micro-level concerns that are not captured in the economic impact projections. This creates both upside and downside risk in the forecasts.

Third, the study projects an 80/20 gaming revenue to non-gaming revenue split, and non-gaming revenue is forecast as a function of their gaming revenue estimates. While this could be considered a reasonable and conservative estimate, non-gaming amenities could also reasonably generate a substantially larger share of revenue. Companies that have expressed interest in bidding on a Toronto

casino license have casino resorts that derive upwards of 60% of revenues from non-gaming amenities (e.g. MGM Resorts International, 2012; Wynn Resorts, 2012). This creates upside risk in the forecasts, especially with non-gaming amenities that potentially have significant additional economic benefits – meaning that the overall economic impact could be larger than that which is anticipated in this report.

### 3.2 Tax Regressivity

While the discussion of the quantity of taxes generated from casinos tends to generate little debate (as this is a straightforward figure to measure), debates often focus on the degree to which these taxes are “regressive” – that is, whether lower income residents bear a disproportionate tax burden compared to higher income residents. On this question, much of the cited evidence of regressivity in gaming taxes is in fact generalized from the literature on lotteries and not casinos (and certainly not resort-style casinos). As such, we seek to clarify this literature’s applications, rather than applying lottery-based findings to all forms of gaming.

Academic literature has found that lotteries tend to be quite regressive (e.g. Ghent and Grant, 2010; Daberkow and Lin, 2012; Perez and Humphries, 2012), but casino gambling has not shown the same degree of income inequality (e.g. Worthington, 2001). In part, this may be because there is little opportunity for higher income players to bet much higher denominations in lotteries. A single purchase of a lottery ticket for the week is the same price for a low income gambler as it is for a high income gambler, whereas in a casino a lower income gambler can wager on “penny slots” while higher income gamblers can wager on higher denomination slots

or table games. Another explanation is that lotteries are generally considered to be more likely to be viewed as “aspirational gambling” (i.e., engaged with aspirations of reaching higher levels of wealth) rather than entertainment-oriented gambling, and thus are more likely to appeal to lower income gamblers. Eadington (1988) summarizes this perspective:

*“Lotteries which have low intrinsic entertainment value but very large prizes relative to the cost of participation are the ideal wealth motive gambles. Fixed odds games with even money pay-offs, on the other hand, are more likely to attract entertainment motivated players than wealth seekers.”*

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*...much of the cited evidence of regressivity in gaming taxes is in fact derived from the literature on lotteries and not casinos... Academic literature has found that lotteries are tend to be much more regressive than casino gambling*

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Put simply, lotteries offer little as a time-occupying recreational activity, but do offer large payouts so they are more likely to be consumed by people who desire to increase their wealth. Casinos, which tend to have lower payout games that offer higher levels of entertainment, are less likely than lotteries to be consumed by people who are simply trying to increase their level of wealth.

The first study focusing on casino gaming tax incidence suggested that casino gaming tax revenue was progressive for the U.S. overall: gamblers with higher incomes had proportionally higher spending levels (Suits, 1977). However, this U.S. national study occurred during a period when only Nevada offered widespread legalized casinos, so many gamblers needed to be relatively wealthy to travel to that state if they wanted to visit a legal casino.

More recent studies, such as Borg, Mason, and Shaprio (1991), Rivenbark and Rounsaville (1996) have found that casino taxes are generally regressive, but that they differ in the extent of the regressiveness. Worthington (2001) finds evidence of a positive relationship between income and gambling expenditures, but notes that gambling spend does not increase at the same rate as income. He therefore concludes that gaming products in Australia are regressive, though slot machines and casino style table games are found to be the least regressive forms of gaming:

*“The results indicate that the incidence of gambling-related taxation is indeed regressive; that is, gambling expenditures as a percentage of income decline as income increases. And this finding holds even when other factors such as household income sources and welfare dependence is (sic) taken account of. This has obvious ramifications for the use of gambling-related taxation as a means of fiscal extraction. However, factors other than income level are also at play in determining gambling expenditures, and thereby the implied tax incidence.”*



Rivenbark and Rounsaville (1996), who also find evidence of regressivity in Mississippi casino taxes, agree with Worthington (2001) findings that casino taxes are less regressive than lotteries, suggesting that casino gaming may be a better funding option than lotteries if regressivity is a concern:

*“...if tax incidence is of major concern, states should consider casino gaming before implementing such a tax regressive vehicle like a state lottery.”*

### 3.2.1 Implications for the Proposed Toronto Market

Overall, the handful of studies that have looked at the regressivity of casino tax revenue have found that it is regressive – albeit generally less regressive than lotteries. However, an important policy consideration that remains is how the incremental tax revenue from casinos is used. If the tax revenue raised from casinos is used to benefit lower income groups, then the *net incidence* of the tax may actually be progressive rather than regressive.

A net progressive tax can occur either directly, through lower income tax rates or social assistance transfers for bottom tax brackets, or it can occur indirectly, by funding government infrastructure projects that are disproportionately used by lower income groups – for example, this could be done through an expansion of public transportation funding.

Ultimately, a theme common in many of the papers from this series emerges once again: it could be that we are focusing on the wrong metric. In this instance, we might argue that the question of tax regressivity should not be the primary concern for policy makers. Rather, the more important metric would seem to be the net effect of the incidence, as this is more properly associated with the common good. Hence, policymakers should devote simultaneous consideration to tax revenue *spending* when considering the effect of a “regressive” casino tax.

As a final note, we might point out that regressive excise taxes are hardly unique to casinos. In fact, most other general sales taxes (such as the GST/HST) are typically found to have a regressive incidence (Kakwani, 1976) – once again underscoring the importance of thinking more holistically about the proper approach to tax policy.

### 3.3 Real Estate Values

In considering economic impacts of a GTA casino, some parties have expressed concern that nearby property values will decline. While there have only been a handful of studies on this topic, the empirical evidence to date suggests that this is an unfounded concern. Where research has been developed and peer reviewed, the effects of casinos on property value clearly appear to be positive – for both residential property and commercial property.

The most robust of these studies was authored by Wiley and Walker (2011), and this study also provides a relatively meaningful case to compare to the proposed Toronto project, since it studies a resort-style casino in an urban market (Detroit, MI). The authors, who control

for many different factors that could also affect property value, find that casino revenues have a positive influence on retail property values. They conclude by saying:

*“The results indicate that casinos have a complementary effect on Detroit retail. An increase in casino revenues is associated with a statistically significant increase in retail property values. This effect is stronger in magnitude for properties within a 5-mile radius surrounding the commercial casinos.”*

Buck et al (1991) similarly found that casinos in Atlantic City increased nearby property values by \$1.35 million per square mile, but caution that crime in the area may have abated some of these gains.<sup>4</sup> Phipps (2004) examined the Windsor, ON market, before and after casino openings, and also found no evidence that there was a negative change in residential real estate values, albeit the author found no positive changes either. Finally, in a large sample study that used data from the 1990 and 2000 U.S. Census of Population and Housing, Wenz (2007) identifies positive effects of casino on nearby property values. He notes:

*Where research has been developed and peer reviewed, the effects of casinos on property value clearly appear to be positive – both for residential property and for commercial property.*

*“...the estimated net benefit of casino gambling at year 2000 levels was approximately 2% of household value, or about \$2,000-\$3,000 per household for households living near a casino. Additionally, there are positive spillover effects to neighboring in-state regions and no significant costs to out-of-state border regions.”*

However, Wenz also expresses a cautionary note that may be relevant here, suggesting that these benefits may be less significant in areas with substantial population density. A downtown casino, then, may see less positive spillover in real estate values.

### 3.3.1 Implications for the Proposed Toronto Market

As a whole, our outlook is that no negative effects on real estate values should occur from casino development in the GTA. In fact, there may be moderate increases in both commercial and residential property values. However, while the research literature is fairly consistent in supporting a non-negative impact, we find that the empirical research is not sufficiently developed for us to estimate an average effect size for this specific GTA project, so some ambiguity remains over the ultimate size of this impact.

<sup>4</sup> In our earlier study on casinos and crime, we concluded that available evidence suggested that casinos do not seem to increase crime levels any more than other tourism attractions.

## 4 Conclusion

Throughout this series, we have attempted to sift through the complex claims made by various stakeholders by focusing on the findings that can be trusted most – those in the empirical, peer-reviewed academic literature. In addition, we have emphasized the importance of understanding differences *between* types of gambling when applying this literature – in this instance, the importance of understanding the potential impacts of an “integrated resort” casino, as these impacts tend to be different (and more economically beneficial) than those found with many other forms of gambling. Ultimately, this approach should help policymakers make more informed decisions.

This particular document sought to inform policy debates on academic research related to the economic impacts of casino gaming. Specifically, we aimed to clarify certain conceptual issues by drawing on the theoretical and empirical gaming economic impact literature. The results of our review suggest that the integrated-resort approach currently under consideration in the GTA is a “best practice” in terms of maximizing the economic impact of the potential facility. We expect a meaningful increase in economic growth over the short-run, and we also expect that the employment generated by the facility should produce wages well above those observed in non-unionized hospitality firms. We also found that the economic impact estimates produced by Ernst & Young (2012) generally appear to be reasonable, insofar as their assumptions prove to be correct, but these estimates may also be subject to more (upside and downside) risk than was implied in their report.

We expect the tax revenue generated from a GTA casino to be regressive, but less regressive than lotteries. We also note that the *net incidence* of the tax may be progressive (rather than regressive) if spending of the revenue benefits lower income groups. This could be done by funding projects that are disproportionately used by lower income groups, such as public transportation.

Finally, our outlook on property values is that no negative effects on nearby prices should be expected from casino expansion in the GTA. Prior research suggests there may in fact be moderate increases in both commercial and residential property values near the resort-casino. While the research literature is fairly consistent in this general perspective, we find that the empirical literature is not sufficiently developed for us to put forward an average effect size for the GTA project in particular.

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