Issues Regarding the Fiscal Impact of Riverboat Gaming

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I have been called upon by the Commission on Government Forecasting and Accountability to provide expert opinion regarding the state of riverboat gaming in Illinois. To this end I have identified and been asked to comment on the following three broad areas:

- Should Illinois expand the number of gaming positions available at existing facilities? How many positions could the state expect to sell? What would be the expected impact on state revenues by such an increase?

- Should Illinois increase the number of available licenses? What price would a 10th license command in an open bidding market? What would be the expected impact on state revenues by an expansion in the number of licenses?

- What is the optimal tax rate to levy on gambling revenues?

Briefly, my opinions are as follows. First, the state would benefit from increasing the number of gaming positions at existing casinos although the net increase in state receipts would be significantly lower than that suggested by the Commission on Government Forecasting and Accountability in their April 6, 2005 discussion.

Second, while issuing additional licenses should result in large one-time revenues as well as an increase in annual revenues, gambling expansion is a matter beyond simple fiscal matters. Gaming expansion in neighboring states as well as the rise of Internet gaming, however, may force the state's hand in this case.

Finally, the high wagering tax rates currently in effect in Illinois do serve to significantly reduce the Adjusted Gross Receipts (AGR) of the state's casinos but positively impact state revenues.

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1. Expansion of Gaming Positions at Existing Facilities

Should Illinois increase the number of gaming positions at existing facilities?
I concur with the conclusions of the CGFA that Illinois' riverboats are currently undersized placing local operators at a competitive disadvantage to neighboring states. Furthermore, making additional positions available would increase the AGR of the existing casinos in the state.

The general arguments against casinos, including increases in local crime rates and pathological gambling problems, do not seem to apply in the case of position expansion in comparison to increasing the number of licenses. All of the existing research of which I am aware finds connections between the existence of social problems and casinos, not social problems and the size of existing casinos. Given the fact that Illinois has already made the ethical decision to offer gaming, it does not strike me that the state takes any moral high-ground by allowing gambling but making it inconvenient for players and casinos alike by insisting on undersized facilities.

In order to maximize state revenues, I would advocate allowing position expansion such that Illinois casinos can meet or exceed the size of facilities in neighboring states. At their current size, this would mean allowing at least 900 additional gaming positions at each of Illinois' riverboats.

How many positions could the state expect to sell?
I also concur with the CGFA that the riverboat operators, particularly the four casinos in the Chicagoland region but also potentially the E. St. Louis Casino Queen and other boats, would choose to purchase additional positions if offered at the price of $3 million per 100 ($30K/each).

Currently the four riverboats in the Chicagoland area have AGRs of $181K to $324K per position and after-tax revenues of $90K to $162K per position at the 50% rate schedule and $62K to $97K per position at the 70% rate schedule. Even allowing for operating and capital expenses, the payback period for a $30K investment in a new position is likely to be short.

This does not mean that all positions offered for sale will necessarily be purchased. Casinos face diminishing marginal returns from additional positions since currently high-stakes gamblers are the first serviced, and during non-peak periods capacity goes unused. In addition, riverboats pay increasing marginal tax rates as both rate schedules provide significant disincentives to expand gaming operations beyond $200-$250 million AGR.

The fact that Indiana operators, without state-imposed limits, choose to operate casinos with roughly 2,000 positions leads me to believe that Chicago operators would choose similarly sized facilities. The higher marginal tax rates in Illinois should discourage bigger casinos while the higher AGRs per position argue for larger facilities. In my opinion the CGFA's assumption of 800 additional positions at the Chicagoland facilities is certainly reasonable. Expansion in positions at the other riverboats is less certain. For example, the after-tax AGR per position at E. Peoria is only $68K, leading to a much longer payback period. The state should also note that space considerations may limit the number of positions a casino purchases and the speed with which these positions become operational.

In summary, I would be much more comfortable with a more conservative estimate of $100 million in additional position sales.

What would be the expected impact on state revenues by an expansion in the number of positions?

First, one must consider how much increasing positions simply reduces crowding without increasing AGR. At one extreme, one could consider increasing the number of positions by 40% without increasing AGR which would reduce the AGR per table game and electronic gaming device to the same average as currently exists in Indiana. The CGFA takes the opposite extreme by assuming that new positions will earn the average of the current AGR per position less a 10% reduction for cannibalization. I find this figure to be far too generous.

The laws of economics require that marginal revenue be less than average revenue. The precise marginal revenue for each additional gaming position at all of Illinois' riverboats is beyond my knowledge. I would, however, be greatly surprised if the marginal revenue from an 800 position expansion exceeded 50% of the average revenue of the respective casino. A simple estimate of the increase in the AGR from an 800 position expansion at each of Chicagoland's 4 casinos using a 50% of average revenue figure yields an increase in AGR of roughly $350 million. At the 50% tax rate schedule, this yields an additional $175 million in annual gambling revenues.

One must consider, however, where the $350 million in AGR comes from. To the extent that this represents money that would have been wagered in other states, the taxes derived from this new revenue is new money to state coffers. However, one must consider that some portion of this revenue is money "reshuffled" from other consumer expenditures on other goods or lottery tickets. Previous research on the initial adoption of riverboat casinos showed a decrease $0.56 decrease in lottery sales for every $1 in AGR. (Fink and Rork, 2003 and Elliot and Navin, 2002) Whether this holds for casino expansion is unknown, but if true, a $350 million increase in AGR would reduce state lottery revenues by roughly $65 million. A similar study by Siegel and Anders (2001) on Indian casino revenues in Arizona estimates that a 10% increase in the number of gaming positions reduces state lottery sales by 2.8%. In the example here that would mean roughly a $50 million reduction in state gaming revenue from lottery sales. Studies on casino and lottery revenues compared to non-gambling expenditures find similar results although the reduction in taxable sales has a much smaller impact on state revenues due to the lower tax rates levied on most goods compared to lottery tickets.

In total, I would hesitate to project an increase in annual total state revenues of more than $100 million from an increase in the allowable number of gaming positions at state riverboats.

2. Expansion of Riverboat Licenses

Should Illinois increase the number of available licenses?
Any discussion of expanding the number and geographical spread of riverboats in Illinois requires a quick examination of the three most common pros and cons of casinos. First, critics contend that casinos increase crime in their locales. This contention is borne out by empirical evidence. Grinols and Mustard (2004) and Evans and Topoleski (2002) both find that the introduction of casino gambling to a county leads to significant increases in serious crime.

Second, easy access to casinos is correlated to roughly double the incidence of pathological gambling disorders. The introduction of a new casino in downtown Chicago could be associated with an increase in the number of problem gamblers in the area by, perhaps, 30,000 along with the corresponding increases in bankruptcies, welfares rolls, and arrest rates. While the existing literature is unclear about whether casinos cause problem gambling or whether problem gamblers locate themselves near casino, in terms of the detrimental effects on the local population, the direction of causation is irrelevant.

Third, proponents of casinos point to positive effects on employment and economic activity in surrounding areas. Studies confirm positive economic benefits for casinos located in the most economically blighted areas (Evans and Topoleski, 2002) but few if any spillovers in areas with robust economies (Kearney, 2005). A new casino located in downtown Chicago is unlikely to have a significant positive impact on employment, income, and wages in the city of Chicago.

Subject to the caveats expressed in the previous section, an expansion of the number of riverboat licenses is likely to increase total state tax revenues. This is particularly true if large numbers of Illinois residents are engaging in gambling activities outside of the state. An expansion of gaming in border states such as the proposed Indian casinos along Wisconsin's southern border or St. Louis's planned expansion of gambling may warrant a response from Illinois. Money wagered by Illinois residents in other states reduces state revenues from general sales as well as wagering taxes on lottery tickets and casinos and increases the social costs of gambling in terms of potential gambling addiction without directly benefiting state coffers in any way. The expansion of state licenses to counter out of state gaming may eventually have to be considered.

The growth of Internet gaming must also be considered. While Internet gambling is illegal in Illinois, a very rough estimate of Internet gambling participation by Illinois residents is $200 million in 2005. At current rates of growth, Internet gaming in Illinois could exceed both lottery sales and riverboat gambling by early next decade. Again, an expansion in riverboat licenses may be desirable simply to counter the effects of increase Internet gaming.

While I am neutral on the economic desirability of selling additional licenses, in my opinion, if it has not already arrived, the time will soon come when Illinois will have to face up to the fact that its residents enjoy gambling, and it is better for the state to benefit fiscally from this habit than to allow these funds to flow out of the state into neighboring areas or cyberspace.

What price would a 10th license command in an open bidding market?

This question is far better suited to my colleague Marc Falconi, but I am willing to hazard a guess and to suggest reasons why this figure may increase or decrease. A 10th license issued to a riverboat that would occupy a position in downtown Chicago or neighboring Rosemount could be reasonably assumed to generate an AGR equal to or exceeding that of the Grand Victoria in Elgin, or nearly $400 million in 2004. In the 70% rate structure the after-tax AGR for such a casino would be $175 million while in the 50% rate structure the after-tax AGR would be $240 million. At a real discount rate of 10% (meaning that AGR grows 10 percentage points slower than the rate at which an operator could borrow money in the financial markets), the discounted sum of profits could easily exceed $1 billion. The state is unlikely to achieve such a large bid for the following reasons, however.

First, the upper ranges of potential bids assume a 50% rate structure. While adopting the lower rate structure could increase bid levels, firms realize that the state could revert to higher tax rates at any time, and therefore they will reduce their bids to account for this risk. Second, bidders also realize that the state could issue additional licenses at any time that would cannibalize their casino's AGR. Unfortunately, the state cannot credibly commit to not raise rates or issue future licenses, so the bidding process is unlikely to fully capture firms' expected future profits. Third, other states and the Internet could offer increasingly attractive alternatives to local casino gambling.

On the other hand, the state could increase the value of the license by increasing the maximum allowable number of gaming positions. Based on the assumptions in the previous section, the bid price could increase by up to 26% by increasing gaming positions to 2,000 from 1,200.

What would be the expected impact on state revenues by an expansion in the number of licenses?

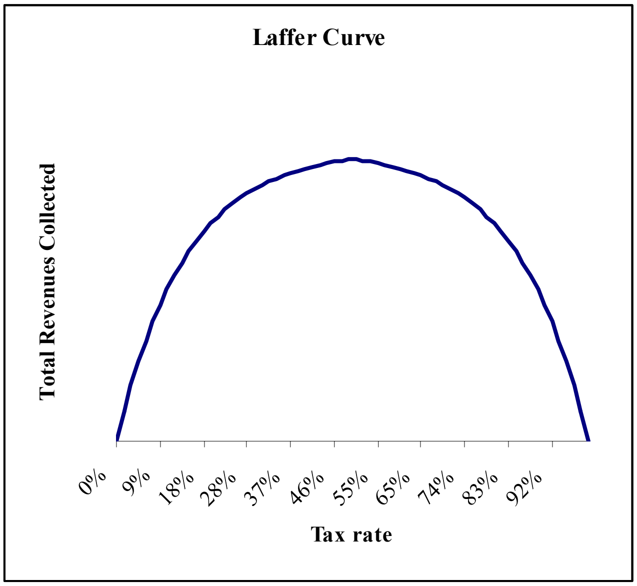
A 10th license issued for Chicago or an inner ring suburb would likely generate $400 to $550 million in AGR depending on the number of allowable gaming positions. This would generate between $160 and $300 million in wagering taxes depending on the tax structure. As before, one must consider, however, where the $400 to $550 million in AGR comes from. One should expect significant declines in the AGRs of the other Chicagoland casinos. If one quarter each of the new casino's revenue comes from other in-state casinos, other out of state casinos, lottery sales, and other sales, then one should expect the net effect on state receipts to be approximately half that of the gross tax revenues generated by the new license.

Depending on their location, one could expect other licenses to do either better or worse. The closer one is to a border, the closer the net increase is to the gross increase. It is no accident that the majority of riverboats are in border regions. Similarly, the farther a new casino is from other existing casinos, the better this is for revenue generation.

3. What is the Optimal Wagering Tax Rate?

The real question facing the state is whether Illinois should revert to its old tax rate structure with a 50% maximum marginal rate (as is currently scheduled to occur) or keep its current tax rate structure with an even higher 70% maximum tax rate.

This is a classic application of the infamous "Laffer Curve" popularized early in the Reagan Administration by his chief economic advisor, Arthur Laffer.



At tax rates of either 0% or 100%, the government collects no revenue, while positive revenues exist at tax rates in between. The trick in government finance is to find that magical maximum point (which is 50% the way this particular graph is drawn). Government can collect additional revenue by raising tax rates only up to a certain point. After that maximum point, the government is essentially killing the goose that lays the golden egg by overtaxation.

It is clear that raising wagering tax rates reduces AGR as casinos pass a portion of these high tax rates on to players in the form of lower payoffs, reduced hours of operation, fewer perks, higher admission fees, etc. It is equally clear that gamblers surprisingly sophisticated and are highly responsive to changes in their expected return from gambling. (There are many examples here. My personal favorite is the fact that roulette is the most common table game in Europe while it is virtually forgotten in American casinos. The reason? American roulette wheels have two green "zero" slots effectively doubling the take for the house. Another example deals with the annuity length for lotto jackpots. The lottery association can artificially inflate the advertised jackpot by increasing the payoff period, but lottery players implicitly see through these attempts to alter the jackpot.)

It is therefore no surprise that, as reported by the American Gaming Association, "While figures in most states remained relatively unchanged from 2002 to 2003, there were some noteworthy differences. In Illinois, a significant tax increase translated to fewer employees, lower wages paid and a drop in admissions as well as in overall casino revenue. Neighboring Indiana was the beneficiary, with a nearly 13 percent increase in admissions, a 6 percent increase in gross gaming revenue, and a 29 percent increase in tax revenue."

What the American Gaming Association fails to note, however, is that a second beneficiary was the state of Illinois, which experienced a 23% increase tax receipts in 2003 followed by an 18% increase in 2004. The state is taking a bigger piece of a smaller pie, but the overall size of the piece is indeed bigger. The 50% rate structure is clearly to the left of the peak on the Laffer Curve. As a cautionary note, at a 70% marginal rate, profit margins are likely to be quite thin for riverboat operators, and significant increases beyond the 70% figure will undoubted "kill the golden goose" as shown by the right-hand side of the Laffer Curve. It is also possible for the Laffer Curve to change over time in response to changes in consumer demand or the introduction of substitute goods. Regardless which tax system the government decides to implement, the issue will likely have to be periodically reexamined in the future.

As noted previously, the high tax rates will serve to reduce the sale price of future licenses as well as the sale price or quantity sold of additional gaming positions. However, since the legislature cannot credibly commit to permanently keeping any proposed lower tax rate structure, a reduction in taxes is unlikely to substantially increase sale prices at this point.

I believe that the CGFA's estimates for state revenues under the two tax structures are entirely plausible and even give a substantial benefit of the doubt in favor of the 50% tax rate structure. I concur with their finding that the switch to the lower tax rate will reduce total state revenue by at least $50 million when compared to maintaining the current tax structure.

Finally, if one still regards gambling as an "evil," then the higher tax rates serve a second function as well to discourage gaming in the first place. Wagering taxes, along with levies on alcohol and cigarettes, are classic examples of sin taxes where the government's goal is to simultaneously maximize revenue while reducing consumption. The higher tax rates achieve both of these goals.

It is my opinion that Illinois should maintain the wagering and admission taxes in effect from July 1, 2003 through July 1, 2005 for the indefinite future. Instead of the legislature asking why Illinois' wagering taxes are so high, they should be asking why other states' rates are so low.