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Is a Lottery a Good Bet for the Texas Economy?

On Nov. 5, voters will decide whether Texas will become the 34th state to enact a lottery. This referendum will—at least for the present—quell public debate about an issue proponents call entertainment and a voluntary revenue source, but one opponents condemn as an inadequate quick-fix for serious state budgetary problems.

A lottery is attractive to some lawmakers because it would help offset the budget shortfalls that have plagued the state since the collapse of oil prices in 1986. A declining tax base and court-ordered increases in state spending on education, social services and corrections contributed to a $4.8 billion gap in the 1992–93 state budget. During a special session of the 72nd Texas Legislature, government officials responded to the deficit by raising taxes and cutting expenditures.

Many lottery advocates, including Governor Ann Richards, have endorsed the measure as an alternative to further tax hikes and the imposition of a state income tax.[1] Yet, questions persist about the lottery's effectiveness as a source of revenue and as a fiscal policy.[2]

A lottery's effect on the Texas economy is uncertain. If people purchase lottery tickets solely as entertainment, then the lottery, in effect, would be a new service offered to consumers in competition with other goods and services that provide entertainment. The effect on the economy would be neutral to positive. But if people purchase lottery tickets expecting to win, they could be using gambling as an investment, which could divert energy and attention away from more productive forms of saving or investment.

A Texas Lottery Will Not Be a Budget Cure-All

Texas, the most populous state without a state-run lottery, could sell a lot of lottery tickets. Arkansas, Oklahoma and New Mexico do not have lotteries to compete for ticket buyers. Residents in these areas probably would purchase Texas lottery tickets, providing the state income from nonresidents. The only state bordering Texas that has a lottery is Louisiana, which started one Sept. 6.

Texas State Comptroller John Sharp estimates that between 1993 and 1996, the sale of Texas lottery tickets would average $1.3 billion per year. Prizes and administrative expenses would absorb nearly 60 percent of gross sales, leaving

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state coffers $550 million, or about 2 percent of Texas revenues.[3] In most states, lotteries account for only 1 percent to 2 percent of total revenues. California and New York, with the largest state-run lotteries, gross between $1 billion and $2 billion in ticket sales, accounting for only 1 percent of total revenues.[4]

In Texas, a lottery would raise revenue roughly equivalent to revenue from the cigarette and tobacco tax.[5] This amount would be less than could be collected by extending the sales tax base to food.[6]

Lotteries: Business, Pleasure or Both?

Many people think of a lottery as a form of entertainment.[7] Gambling, after all, is the most visible aspect of a lottery. For $1 or so, ticket buyers get the pleasure of envisioning themselves rich, basking on a tropical isle, paying for a child's college tuition and retiring early. One state—Minnesota—soon may even have a lottery that citizens can play using Nintendo® sets in their homes.

But governments enact lotteries to raise revenue. States operate lotteries as businesses—state-run monopolies that generate sizable profits because private-sector games are restricted. The state keeps all money remaining from ticket sales after prizes and operating expenses have been paid. The amount of money remaining after deducting these overhead costs can be considered a tax levied on the purchase of lottery tickets.

The lottery's entertainment value makes it very popular, but running the lottery increases the state's cost of collecting revenue above costs normally incurred in raising taxes. Lotteries require heavy advertising, game administration and security. On average, states spend about 10 percent of their gross lottery revenues on administrative costs. In contrast, Texas spends less than 1 percent of gross proceeds to collect taxes.[8] Despite the high administrative cost, the success of lotteries in other states indicates that the public is willing to pay for this new, previously illegal form of entertainment.

The amount of money remaining after prizes and operating costs—the part of lottery revenues considered taxation—is relatively high in comparison with tax rates on other items. The average tax rate for state-run lotteries is 40 percent, although this rate varies from state to state (*Chart 1*). In 1990, the states with the highest lottery tax rates were South Dakota, with 52 percent, and Connecticut, with 49 percent. In contrast, Montana collected 19 percent of each lottery ticket sale.

In Texas, the tax rate on lottery tickets would likely be between 35 percent and 40 percent, making the lottery tax rate the highest on any good or service in the state. The Texas comptroller based his estimates for lottery revenue on a 40-percent tax rate. In contrast, Texas' *sumptuary taxes*—the so-called sin taxes charged to discourage use of such items as cigarettes and alcohol—average 25 percent. Tax rates for Texas' two major tax bases—sales and property—are also far below the 40-percent level. State and local sales taxes average a little more than 8 percent, while the highest property tax in the state is 2 percent.

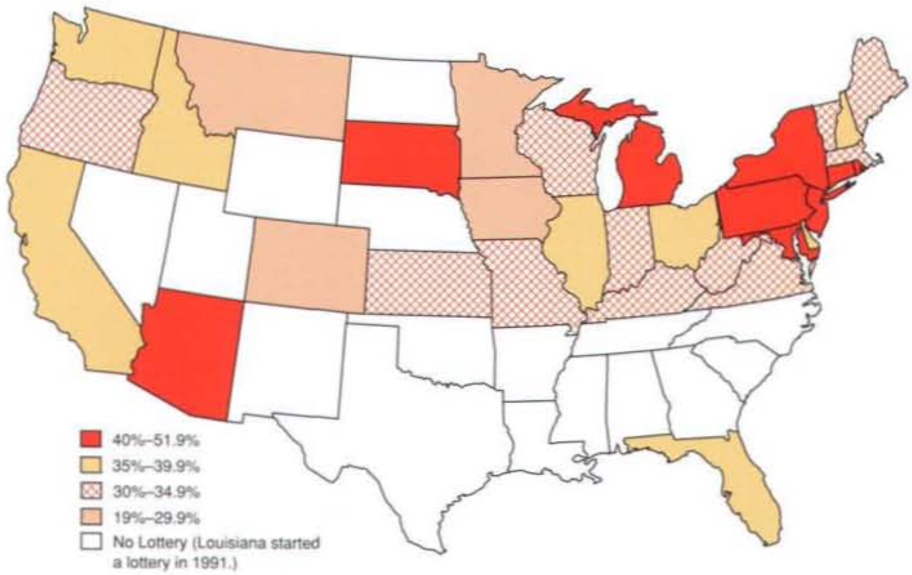
Tax rates at this level raise another issue about a Texas lottery. Who would play—and who would pay this 40-percent tax rate?

Who Plays Lotteries?

Lottery participation is voluntary, so the issue of who plays the game is moot to many people. However, studies of lottery participants in other states indicate that ticket purchases decline as the level of formal education attained increases.[9]

Further, several independent studies have determined that people of all income levels purchase about the same number of lottery tickets. A tax on lottery tickets, therefore, is *regressive*, which means that, as a percent of annual income, lottery tickets cost low-income groups

Chart 1
State Lottery Revenues as a Percent of Ticket Sales, 1990



SOURCE: 1991 Compendium of Lottery Statistics, *Gaming and Wagering Business.*

"Advertisements play a critical role in conveying information to the public about the likelihood of winning a lottery."

more than high-income groups. Researchers conclude that a lottery tax is two to three times more regressive than the sales tax[10] and more regressive than alcohol or gasoline taxes.[11]

Many lottery opponents believe the tax code should narrow rather than increase the disparities among income classes. Lottery supporters argue that the tax regressivity is irrelevant because no one is forced to participate. But regressivity is only one of several characteristics the voters must consider when analyzing the lottery issue. Another question concerns its volatility as a source of revenue.

The Ups and Downs of Lottery Revenues

Lottery revenues tend to be much more unstable than revenue from other sources. By offering a lottery, the state of Texas would be selling a product. And as with any product, continuous sales are no certainty.

Lottery activities in neighboring states and the size of prizes can affect ticket demand. More often, however, demand volatility results when consumers become bored with the games. States often must introduce new games and increase advertising to stimulate demand.

While lotteries are more unpredictable than other tax sources, states have developed methods to cope with this instability. If the lottery referendum passes, the state of Texas would create a lottery-stabilization fund to mitigate swings in ticket sales. This fund would reserve a portion of lottery revenues to stabilize income during periods of low ticket sales.[12]

The instability of ticket sales is inherently linked to the perception of a lottery as a voluntary tax. Ticket sales go up or down with a game's popularity, underscoring ticket buyers' perception that this is one tax they can choose not to pay. At the same time, the state will probably respond to low ticket sales by increasing advertising.

The Role of Lottery Advertising

Advertisements play a critical role in conveying information to the public about the likelihood of winning a lottery. Researchers have

"[A]dvertisements often fail to mention that large prizes are typically distributed as annuities, with payments spanning several years, making the present value of lottery jackpots lower than the advertised amount."

found that successful lotteries require aggressive marketing and promotion.[13] After all, most people playing lotteries lose. Lottery advertising, however, typically shows winners but does not reveal that the chance of winning big is very remote.

The likelihood of winning a lottery depends on the size of the prize. In New York, for example, one in every 10 players will win an "instant win" lottery game with a prize of $1. Winning a lotto jackpot, the most popular lottery game, is much more difficult. In New York, the lotto jackpot, which has varied between $3 million and $90 million, has been won by only one in every 12 million players. Overall, in 1990, one in every 48 people who purchased a lottery ticket in New York won a prize.[14]

Analysts investigating why people play lotteries have asked whether participation is entertainment and whether ticket buyers understand the odds of winning the game. Many ticket buyers play the lottery mostly for entertainment. But some ticket buyers play the lottery hoping to win. These lottery players are making a purchase with what is often incomplete information about the odds of winning the game.

One group of researchers found that lottery advertising and promotion tend to convey inaccurate impressions about such facts as the size of the jackpot and the likelihood of winning it.[15] Also, advertisements often fail to mention that large prizes are typically distributed as annuities, with payments spanning several years, making the present value of lottery jackpots lower than the advertised amount.[16]

When companies in the private sector conduct contests, they must fully disclose the chance of winning and the method of prize distribution. Researchers question whether government agencies should be held to the same or a higher standard of candor as private advertisers.[17] The Texas Legislature has expressed concern about persuasive promotion. Texas lottery legislation prohibits the use of advertising that unduly influences the purchase of lottery tickets.

General Effects of a Lottery on the Texas Economy

Analysts have questioned a lottery's overall economic impact. Some aspects of a lottery, such as commissions for the retailers that sell tickets, may stimulate economic activity. Lottery tickets purchased as entertainment would reduce consumption of other forms of entertainment, shifting consumption from the private to the public sector. As a result, the effect on the overall economy is not certain. Lottery tickets that are purchased primarily for the purpose of winning may harm the economy by diverting funds from saving and investment, although this effect is difficult to measure.

If approved on Nov. 5, a lottery could improve the Texas economy by giving people an entertainment service they want. Because participation is voluntary, ticket buyers will be better off with a lottery, if they are fully informed about the odds of winning. Lottery players would most likely prefer a lower tax rate, or no tax at all, but they would rather pay a 40-percent tax on lottery tickets than be prohibited from purchasing tickets entirely, as under current law.

Lottery ticket sales would reduce sales tax collections by a few percentage points, and the comptroller's estimates reflect this effect. The decline in the sales tax receipts would occur because lottery ticket buyers would likely purchase other taxable goods if there were no lottery in the state. But a decline in sales tax receipts need not lower overall state revenues. A dollar spent on a lottery ticket would yield the state a larger return than a dollar spent on a sales-taxable item because of the higher lottery tax rate.

A lottery could be harmful to the

economy if ticket buyers are uninformed of the odds of winning because it could encourage ticket buyers to invest in an asset that is riskier than they desire. Ticket buyers who play the lottery to win are making an attempt to generate money in the future—albeit with a very risky asset. Knowing the odds reduces the harmful effect by making ticket buyers aware of the riskiness of their lottery purchase. Accurate advertising that reveals the odds of winning a lottery will help people avoid inappropriate ticket purchases as a method of saving or investment.

Conclusion

Is a lottery a good bet for the Texas economy? The evidence is mixed. A lottery could have both beneficial and harmful effects, as outlined in this article. The net result is unclear and difficult to measure, but at best the economic impact of a lottery will be small.

The public tends to accept lotteries because, unlike property or income taxes, participation is voluntary. Ticket buyers pay the lottery tax while they enjoy a game of chance. To many people, lotteries are fun to play, and participation is a public-spirited activity that helps support public services.[18] Lotteries are a popular alternative to raising taxes or cutting government programs. Ticket buyers can be entertained while helping to balance the state budget.

Ticket buyers would benefit from being fully informed on the risks and rewards of a lottery. Advertising that clearly states the probability of winning and the value of jackpots paid out in annuities will best prepare people to choose between a lottery ticket and alternative purchases.

Compared with other taxes, a lottery has a high tax rate, high administrative costs and tends to be regressive. Yet, the increasing number of states offering a lottery as an alternative form of taxation suggests the public views state lotteries favorably. After all, a lottery is a voluntary tax that can be avoided completely. Over time, state lotteries have become just another—albeit small—source of tax revenue to state governments.

—Fiona Sigalla

[1] Gillman, Todd J. (1991), "Lure of big win may be lottery's ticket in Texas," *The Dallas Morning News,* September 1, p. 12A.

[2] Taxation of legalized gambling has become a growing revenue source for fiscally strapped state governments looking for creative ways to broaden their tax base. While lotteries are a prevalent form of state-run gambling, taxation of horse racing and dog racing is also popular. For several years, Nevada and New Jersey have raised revenue by taxing casino-style gambling, which is building popularity. Riverboat casino gambling has been approved by Iowa, Illinois and Mississippi and is being considered by other states.

[3] John Sharp, Texas Comptroller of Public Accounts, Fiscal Note Estimate, HB 54, and Federal Reserve Bank of Dallas estimates.

[4] U.S. Bureau of the Census (1990), *Government Finances in 1987–1988* Series GF-88-5 (Washington, D.C.: U.S. Government Printing Office).

[5] John Sharp, Texas Comptroller of Public Accounts, 1992–93 Biennial Revenue Estimate.

[6] John Sharp, Texas Comptroller of Public Accounts, "Sales and Franchise Tax Exemptions, A Special Financial Report," January 1991.

[7] For many people the key issue surrounding a lottery is the morality of gambling. That concern is beyond the scope of this article.

[8] Craymer, Dale K. (1989), "The Lottery and Texas," *Rethinking Texas Taxes: Final Report of the Select Committee on Tax Equity,* volume 2, chapter 29, February.

[9] Clotfelter, Charles T., and Philip J. Cook (1989), *Selling Hope: State Lotteries in America* (Cambridge, Mass.: National Bureau of Economic Research, Harvard University Press): 241.

[10] Suits, Daniel B. (1977), "Gambling Taxes: Regressivity and Revenue Potential," *National Tax Journal* 30 (1, March): 19–35.

[11] Clotfelter and Cook (1989, 226).

[12] John Sharp, Texas Comptroller of Public Accounts, Fiscal Note Estimate, HB 54.

[13] Mikesell, John L., and Kurt Zorn (1988), "State Lotteries for Public Revenue," *Public Budgeting and Finance,* Spring.

[14] Telephone conversation with a representative of the New York State Lottery, Sept. 19, 1991.

[15] Clotfelter and Cook (1989, 240).

[16] Mikesell and Zorn (1988).

[17] Clotfelter and Cook (1989, 243).

[18] Many states dedicate lottery revenues to a specific expenditure, such as education, to encourage participation.