

Reproduced with permission from Daily Tax Report: State, DTRS 3/28/17, 10/20/2017. Copyright © 2017 by The Bureau of National Affairs, Inc. (800-372-1033) <http://www.bna.com>

Tax Policy

Amazon is bidding to receive state tax incentives for its second headquarters. In this article, Jacob Bundrick of the Arkansas Center for Research in Economics (ACRE) at the University of Central Arkansas discusses game theory and the prisoner's dilemma in evaluating tax incentive strategies states may pursue to lure Amazon.

Economic Development Bidding: A Prisoner's Dilemma

BY JACOB BUNDRICK

Wisconsin's \$3 billion bid to win the Foxconn sweepstakes has the economic development world buzzing. That buzz has only intensified now that Amazon is accepting bids in their search for a city to build their second headquarters. Cities all across the country, from Boston to Chicago are putting together their best incentive packages to try to woo Amazon. But while there is much excitement around these megadeals, taxpayers across the country should be wary of the prisoner's dilemma that public officials are playing.

Jacob Bundrick is a policy analyst with the Arkansas Center for Research in Economics (ACRE) at the University of Central Arkansas. The views expressed are those of the author and do not necessarily reflect those of UCA.

The prisoner's dilemma is a game theory model used to evaluate cooperative and competitive strategies. In the classic version of the dilemma, two arrestees are interrogated separately with each having the option to confess or remain silent. If both remain silent, both receive light sentences. If one confesses while the other does not, the confessing suspect receives a reduced sentence while the silent suspect receives a severe sentence. If both confess, both receive middle-of-the-road sentences. Thus, the incentives lead each suspect to confess, resulting in both suspects receiving harsher punishments than if they had both remained silent.

Strategies to Pursue

This framework is useful for thinking about the strategies that individuals are likely to pursue in similar real world scenarios. As such, we can apply the model to the economic development strategies of state officials competing with each other for business locations. To illustrate, let's assume that Wisconsin and Michigan are the only two states competing for businesses. Each state has the option to provide incentives or abstain.

If officials from both states abstain from offering incentives, each state will receive business investment commensurate with the state's natural advantages and avoid the fiscal costs associated with tax breaks and subsidies. But if Wisconsin officials offer incentives and Michigan officials refrain, Wisconsin may be able to attract more than their natural share of business investment while Michigan attracts less. The opposite is also true. If Michigan officials offer incentives and Wisconsin officials refrain, Michigan could capture more than their natural share of business investment while Wisconsin captures less.

Because both states would like to capture a greater share of business investment and avoid losing share, both states are led to provide special tax breaks and subsidies to select companies. But much like our two confessing suspects, both Michigan and Wisconsin are now worse off than they would have been if they had both refrained from providing incentives. Each state may lure some projects away from the other, but neither is likely to consistently attract more than their natural share of business investment. This means that both states may incur substantial fiscal costs to potentially receive no more than their natural share of investment. Michigan and Wisconsin would have been better off to coordinate a moratorium on incentives and save their tax dollars.

Incentives Arms Race

The dynamic of the prisoner's dilemma leads to an arms race amongst states, with each state aiming to increase the size and scope of their incentives war chest to better compete for business locations. Consider two recent examples. In Arkansas, former state senator Jon Woods sponsored a 2016 constitutional amendment that removed the cap on the amount of state debt the Arkansas legislature can issue for economic development. Mr. Woods argued that the previous cap on such bonds meant Arkansas's "hands [were] tied" when competing for larger projects. In Michigan, state representative Jason Sheppard supported Michigan's 2017 Good Jobs for Michigan tax credit legislation, declaring that Michigan is "in an arms race, not only with our border states, but the entire country."

The incentives arms race has proved costly for states. The W.E. Upjohn Institute estimates that the cost of economic development incentives nationwide reached \$45 billion in 2015, which is more than three times the cost in 1990. Making matters worse is that business leaders are able to exploit this problem by pitting competing states against each other to further drive up the value of their incentive packages. Consider the cost of luring an auto assembly plant.

According to data from Good Jobs First, Pennsylvania taxpayers paid \$84,361 per job (adjusted for inflation) to land a Volkswagen assembly plant in 1976. In 2008, a separate Volkswagen assembly plant cost Tennessee taxpayers \$308,783 per job (adjusted for infla-

tion). The 2008 price per job was almost four times the cost in 1976.

States Increasingly Risk Overpaying

With incentive packages becoming more expensive, states increasingly risk overpaying for projects that fail to deliver the expected economic benefits. Consider the case of Boeing in Washington State. In 2013, Washington provided Boeing an \$8.7 billion incentive package "to maintain and grow its workforce within the state." Yet, the company cut more than 12,600 Washington jobs between the time it signed the incentive agreement in 2013 and May of this year. Naturally, Washington state representative Noel Frame described Boeing's underwhelming performance as "so blatant in its disrespect for the will and intent of why we give tax incentives, the outrage is bipartisan."

While it is tempting for states to engage in bidding wars for economic development projects, state officials should resist. Most businesses choose their locations for reasons other than the incentives a state may provide. For instance, firms choose locations based on whether a locality has positive spillover effects from nearby firms (think Silicon Valley and tech firms), sufficient amenities for workers and owners, a labor force that meets the firm's needs, labor unionization, and many other factors. Moreover, the majority of empirical analysis reveals that targeted economic development incentives do not have clear, positive effects on the broad economy.

Nevertheless, some public officials will contend that as long as other states continue to provide incentives, their respective state must continue to do the same. But there are other ways to win at this game. For instance, congress could change federal policy to reduce the use of state and local incentives. After all, the majority of leading economists polled in the University of Chicago's IGM Forum agree that the United States as a whole does not benefit when states compete with each other by providing economic development incentives. However, states do not have to wait for a response from the federal government. State officials could work together to coordinate a truce among the states, similar to the proposed truce between Kansas and Missouri. It would be a lot of work, but state governments could save a collective \$45 billion every year by cooperating with each other rather than competing.