Economic Accounting Note Series

Using Benefit-Cost Analysis to Evaluate Tax Abatement Decisions

Thomas N. Yoder, Ph.D., August 11, 2020
Decision Commerce Group, LLC

A standard practice in Regional Economic Development is to offer tax abatements to businesses that agree to locate or expand operations within a region. Unlike infrastructure investments, the current generally accepted practice among economic development professionals is to use Economic Impact Analysis rather than Benefit-Cost Analysis to evaluate these tax abatement decisions. In this accounting note, I discuss the merits of performing Benefit-Cost Analysis and offer guidance on its use to support tax abatement decisions.

Issue

A standard practice in Regional Economic Development is to offer tax abatements to businesses that agree to locate or expand operations within a region. These abatements are often linked to promises by the business to create jobs. Economic researchers have found that offering abatements has little effect on business location decisions and thus job creation, since local property and income taxes represent such a small portion of an industry's production costs. What drives Regional Economic Development and location decisions are a region's comparative advantage across an industry's primary factor costs, such as materials, energy, transportation, labor, and land.

A region can affect its comparative advantage through investments in infrastructure that are related to increasing industry and household productivity. A generally accepted accounting practice is to measure the benefits of these investments against the proposed costs when evaluating whether or not to invest in any Regional Economic Development infrastructure project. This practice of using Benefit-Cost Analysis (BCA) as the accounting method of choice to support infrastructure investment decisions helps to ensure that a region is not wasting monetary resources on investments that have little or no effect on economic productivity, the cause underlying and sustaining a region's economic performance.

Unlike infrastructure investments, however, the current generally accepted practice among economic development professionals is to use Economic Impact Analysis (EIA) rather than Benefit-Cost Analysis to evaluate investments in industry development using tax abatements. In this accounting note, I discuss the merits of performing Benefit-Cost Analysis and offer guidance on how to perform BCA for tax abatement investment decisions.

Discussion

To discuss the merits of BCA for tax abatements, we first need to think about the role of tax abatements in managing a regional economy, and how this role and the monetary resources that are spent relate to the overall regional investment portfolio. Then we can consider why we might use the same accounting practice, that of Benefit-Cost Analysis, to inform all investment and resource decisions in the portfolio, instead of continuing to use Economic Impact Analysis to support tax abatement decisions.

Tax abatement objectives

Professionals working in economic development have two concerns when managing a regional economy:

- The first is to make the right investments to create and maintain a comparative advantage that provides for long-term economic opportunities for all of its citizens;
- The second is to know when to use resources to stabilize the economy in response to short-term shocks, so that short-term events remain just that and do not affect the long-term path of economic opportunities in the region.

How does a tax abatement program fit into these two areas of performance management? For long-term development based on comparative advantage, the evidence suggests that abatements have little effect on an industry's factor costs and competitiveness. As a result, we would expect that tax abatements given to businesses for creating jobs generate insignificant economic development benefits from the lowering of factor costs.

Yet, there are two categories of economic productivity benefits in which tax abatements could benefit long-term economic development -- regional agglomeration and public externalities. Agglomeration is the concentration, or clustering, of industry and its suppliers, skilled workforce, and customers in a region. This concentration supports economies of scale, reduced transportation costs, and access to the labor and knowledge required to create an innovative, competitive ecosystem for continuing development of the industry. Tax abatements could prime the agglomeration pump. Once the first business in the industry and its important supply chain partners locate in the region, others may follow as they see the comparative agglomeration advantage forming in the region.

Regarding public externalities, in industries that are geographically dispersed to serve customers, such as hospitals, private industry investment analysis does not include benefits that are external to its organization. These benefits may include savings to customers and workers, such as transportation costs and time. In small areas especially, private industry may choose to invest elsewhere as larger markets represent better investment opportunities for limited investment funds. But when public externality benefits outweigh tax abatement costs, creating a public-private partnership that is beneficial to both parties may result in industry location that would not have occurred in the absence of the public investment.

The second area of concern is stabilization of a regional economy. When a shock occurs to a local economy, whether from a natural disaster, a downturn in the business cycle, or a plant shutdown in an industry that is in the decline stage of its life cycle, the economy is at risk of this short-term event affecting long-term opportunities. Tax abatements that encourage rebuilding of infrastructure and reemployment of workers offset the effects of the event, allowing a local economy to continue on a path of long-term development rather than experience loss of comparative advantage, income, and depopulation due to the event. Abatements have stabilization benefits, which in turn can have comparative advantage and regional development benefits.

Financial portfolio analysis

Tax abatements are a finite, monetary resource available to economic development professionals. Given the scarcity of monetary resources, the spending of tax abatements must be done with careful thought to the entire portfolio of investments necessary to develop and stabilize a regional economy. Each tax abatement that is granted not only diminishes the amount of this resource that can be called upon in the future, but also diminishes other financial resources for a region, such as having the revenue to service debt on bonds issued to build and maintain infrastructure.

Given that tax abatements are public financial investments, why has Economic Impact

Analysis become the generally accepted accounting practice to analyze these investments? EIA is not built around typical financial analysis techniques, such as accounting for a stream of benefits and costs over time, accounting for inflation, and discounting future streams to account for the time value of money. Nor does EIA account directly for comparative advantage -- the underlying cause of Regional Economic Development. Using EIA, decision-makers could choose investments that have little to no benefit, which is actually what the research evidence indicates. In short, EIA is not a financial investment analysis method but is currently being relied on to make financial investment decisions.

BCA, in comparison, measures the benefits of comparative advantage and takes into account inflation and the time value of money. While BCA measures comparative advantage directly, EIA is designed to estimate marginal changes to regional economic indicators such as Gross Local Product, Regional Income, and Regional Employment. When these projections are not tied to an underlying cause for regional development and stabilization, then benefits are falsely attributed to the cost of investment. The result is that an investment that passes an economic impact test may fail a benefit-cost test, indicating that the spending of scarce financial resources is wasted. The evidence from research indicates that this scenario happens all too often.

I see a couple of other benefits to using BCA to support tax abatement decisions. As discussed above, when tax abatements are applied to prime the agglomeration pump and to stabilize in the short-term to develop in the long-term, abatement incentives can have synergistic benefits with other financial instruments. Using the BCA investment analysis method allows for inclusion of these synergies when evaluating a portfolio of investments.

Another benefit is that BCA is a framework that is consistent with financial analysis used in industry. Tax abatements are a public-private investment agreement, in which industry invests in a location and receives a public investment when doing so. An industry evaluates a location based on input cost factors and distance to markets and materials -- the same analysis that underlies Benefit-Cost Analysis. By using BCA, both parties to the public-private investment use the same basis in their decision-making.

Summary

I see merit in using Benefit-Cost Analysis to evaluate tax abatement decisions. My reasons include

- Benefit-Cost Analysis is a generally accepted accounting practice for financial investments -- both public and private -- while Economic Impact Analysis, rather than being investment analysis accounting, is a method for reporting marginal changes to performance indicator metrics on a pro forma basis;

- Since tax abatements and infrastructure funding come from a common portfolio of financial resources, using the BCA investment analysis method allows decision-makers to understand and compare returns across the whole portfolio;
- Using Benefit-Cost Analysis for tax abatements allows for measuring synergistic benefits between economic development and stabilization investments.

Guidance

I recommend using Benefit-Cost Analysis to evaluate tax abatement investments for the reasons discussed above. I recommend continued use of Economic Impact Analysis but in the role for which it is intended: to project the values of economic indicators for a portfolio of investments that pass Benefit-Cost investment criteria. This combination of BCA and EIA gives economic development professionals a powerful toolset to cause change that moves the local economy towards meeting income and employment objectives. Using only EIA breaks this bond between cause and effect, and can result in wasting precious financial resources if basing decisions solely on EIA. In other words, using only EIA when evaluating tax abatements may result in a local economy hitting its employment and income goals, but at a larger financial cost compared to alternatives.

In the following table I list our guidance on measuring benefits for tax abatement investments. Since the benefits of abatements differ by purpose, I provide guidance separately for stabilization and agglomeration projects. National market type refers to whether industries gain a comparative advantage by concentrating geographically, or whether an industry needs to be geographically dispersed to serve its markets, such as the hospital industry.

Economic Development Project Category	National Market Type	Benefit Accounting General Guidance
Stabilize economy	All	Short-term benefits are increased household productivity from reemployment compared to unemployment; long-term benefits include maintaining existing comparative advantage in non-declining industries.
Create comparative	Geographically concentrated	Agglomeration benefits are measured as transportation and labor savings through the

advantage through industry agglomeration		vertical concentration of industry and expanding the pool of skilled workers. For a tax abatement project, include agglomeration as a benefit in BCA if a local economy has comparative advantage in the industry or the industry's customer, and a location quotient of less than one (indicating weak presence of supply chain industries).
Address public externalities through private industry location	Geographically dispersed	Externality benefits are measured as savings to local customers and workers that are not included in private industry's investment analysis. This situation may occur in small market areas in which the return on investment for a company may be too small compared to other investment opportunities to justify the investment in a facility to serve the local market. Adding in the benefits for local workers and customers may result in a public-private partnership investment in which the public tax abatement adds value to the local economy that otherwise would not have occurred.