



How to Brief No. 10: HOW TO SELECT AN APPROPRIATE VALUE CAPTURE TECHNIQUE

Transportation infrastructure decisionmakers look to value capture for a variety of reasons: to provide revenue to meet local-match share funds required by Federal and State funding formulas, to fund local projects not eligible for Federal or State funds, to accelerate project timelines, and to promote a more equitable approach to infrastructure funding, among other reasons. Value capture refers to revenue-generation techniques designed to use a fair share of the concentrated private benefits of public infrastructure investments to fund the infrastructure itself. Value capture is not one size fits all. Each technique is suited to certain funding goals, project types, and economic and real estate market conditions. Selecting the right technique helps ensure that the implementation meets revenue needs, promotes equity in infrastructure funding, and advances (or at least avoids conflicts with) other related public policy goals. The purpose of this how-to brief is to provide a set of straightforward criteria for selecting the value capture technique or techniques that best meet agency and project needs.

Key Takeaways

- > **Value capture refers to a set of revenue-generation techniques designed to use a fair share of the private benefits of a public infrastructure investment based on the beneficiary-pays principle.** Each technique is suited to certain funding purposes and goals, type of investment, economic and real estate market conditions, and related public policy goals.
- > **Assessing funding needs in terms of magnitude, duration, and timing funds is just the first step.** It is important to identify techniques compatible with these funding needs. The list of potential techniques can then be narrowed down according to the types of benefits they can collect and the beneficiaries they reach; underlying economic and real estate market conditions; and potential interactions with related public policy areas.
- > **Equity is central to value capture, and not only because techniques based on the beneficiary-pays principle are inherently fairer.** The right value capture technique, implemented in the appropriate economic and real estate market context, communicates the true cost and value of infrastructure to beneficiaries and taxpayers. Equitable participation through value capture naturally aligns private sector decisions about where to live, work, develop property, and operate businesses with public policy goals such as economic revitalization and redevelopment, affordable housing provision, fiscal stability, and environmental sustainability.

Why Choice of Technique Matters

Value capture refers to infrastructure-funding techniques designed to use a fair share of the concentrated private benefits of public infrastructure investments to fund the infrastructure itself. These techniques have the potential to close funding gaps for critical infrastructure and align the investments with other local and regional public policy goals. Each technique offers different outcomes, and careful consideration should be given to those that align with funding needs, project or program size, infrastructure type, risks, geography, and policy goals.

Value capture is appropriate whenever an infrastructure investment distributes benefits unequally among taxpayers, particularly when a public investment concentrates its benefits on a limited number of property owners. For example, owners of retail property adjacent to a new highway off-ramp, developers of residential properties that can be re-developed at a higher density because of their proximity to transportation improvements, or businesses operating in new office buildings or industrial parks because of improved roadway access receive a significantly greater benefit from infrastructure investments than other taxpayers.

This value, over and above what the general public receives, is what value capture techniques capture to help pay for the infrastructure improvements. Different infrastructure investments create different benefits—whether increased opportunity for development, a higher property value, or more business activity—and confer the benefits on different beneficiaries (e.g., developers, property owners, and business owners). The amount of benefits and their distribution depend on the underlying economic and real estate market conditions.

Each value capture technique is designed to capture a specific kind of value from a specific type of beneficiary in a specific economic context. For example, a technique designed to generate revenue by catalyzing growth that results in increased property values may not be able to capture revenue to fund infrastructure that is made necessary by rapid growth and new development. A technique with significant revenue potential in one context could be unsuccessful in another. And whether or not a technique meets revenue needs, it may be equitable in one economic context and not in another; it may have a favorable effect on development patterns under one set of real estate market conditions and undesirable effects under another set of conditions.

The purpose of this how-to brief is to provide a quick reference for choosing the appropriate value capture technique to meet common transportation infrastructure funding needs.

How to Choose an Appropriate Technique

The areas of consideration for technique selection are:

- **Funding need**—Magnitude, duration, and timing.
- **Beneficiaries**—Who the beneficiaries are (property owners, developers, businesses) and how the beneficiaries receive those benefits (in higher property values, new development, increased retail sales, improved roadway maintenance and operations).
- **Market conditions**—Local and regional economic factors, socioeconomic conditions, and real estate market conditions.
- **Public policy goals**—Local and regional public policy goals, such as transportation equity, protecting the environment, improving accessibility, improving safety, and providing affordable housing, drive infrastructure improvements.

Integrating value capture into a funding program is more equitable than relying exclusively on sources that draw from general taxes such as a property tax, which applies the same tax rate regardless of how much a taxpayer benefits from an infrastructure investment, or user fees, which give benefits to non-users such as adjacent property owners and developers. In this way, the public policy goal of equity is fundamental to value capture. [How-to Brief No. 1: How to Adopt a Business Case Mindset](#) provides more detail.

The relationship between value capture and public policy does not end there. The quality and availability of transportation infrastructure affect where businesses choose to locate and expand, where people choose to live, and how properties are developed and used. As a result, transportation infrastructure affects many public policy issues, from equity and affordable housing to economic development and the labor market to environmental issues such as habitat preservation and greenhouse gas emissions.

Not only the infrastructure itself, but also the way the infrastructure is paid for, has an effect on public policy issues. Who bears the cost of infrastructure can affect (1) the cost of doing business, which is a significant factor in business attraction and retention, and (2) the cost of living, which can support or stymie affordable housing.

The fees collected through value capture also increase opportunities for business location and expansion, enhance property development decisions, and affect housing affordability and the cost of living.

The right value capture technique communicates the true economic cost of development to consumers, thus encouraging more efficient and sustainable development that supports affordable housing, transit and active transportation, emissions reduction, and habitat preservation. But the same technique applied in a different context may have consequences that not only limit the technique's revenue-generation potential but also undermine other public policy goals. A value capture technique implemented in incompatible economic or real estate market conditions can even fail to be a more equitable way of paying for infrastructure.

The different techniques affect private sector decisions differently, and as a result, techniques can be selected strategically to support certain policy goals while avoiding undermining other goals. Moreover, there is not just one step in considering the potential impacts on related public policy goals. Instead, consideration of equity and other public policy goals is woven throughout the implementation of value capture techniques.

Step 1: Determine Funding Needs

To pursue value capture as a main source of funding or to close a funding gap left by traditional sources, the revenue needs must be determined through consideration of the following:

- Is funding needed to support specific projects? Or is funding needed to support a broader transportation infrastructure program?
- What is the scale of the funding need? Are funds needed for a local complete streets project or a major Interstate highway improvement? What is the size of the funding gap or what is the amount of the local share contribution needed to match Federal or State funds?
- Is this a one-time need that will be completed with the conclusion of the project or repayment of the associated debt? Is it preferable for the funding need be periodically reviewed and renewed? Will the funding need be short term, long term, or indefinite?

Table 1 characterizes common value capture techniques by their potential for generating revenue and the timing of their revenue streams. This table can be used to eliminate from consideration techniques that are not compatible with funding needs.

Table 1. Revenue Generation and Timing of Common Value Capture Techniques

Technique	Revenue Potential	Timing of Revenue Availability	Duration of Revenue Generation	Supports Financing ?	Capital Expenditure or O&M
Impact fees, negotiated exactions	Moderate	Revenue generated at time and pace of new construction, immediately available to fund or finance infrastructure	Ongoing	Yes ¹	Capital expenditure
Transportation utility fees	Low	Ongoing	Ongoing	Yes	Both
Special assessment districts	Low to moderate	Defined by the legislation authorizing the district's formation, governed by enabling statute	Limits set by enabling statute, may be renewable	Yes	Capital expenditure
Business improvement districts	Low	One-time or recurring	Determined by the bylaws of the business improvement district	No	Both

Technique	Revenue Potential	Timing of Revenue Availability	Duration of Revenue Generation	Supports Financing ?	Capital Expenditure or O&M
Land value taxes or split-rate taxes	Moderate	Collected with general property tax (typically annually, biannually, or quarterly)	Ongoing	No	Both
Sales tax districts	Moderate	Ongoing	Determined by enabling legislation	Yes	Capital expenditure
Tax increment financing, transportation reinvestment zones	Moderate	Delayed, determined by rate of property value growth	Duration limited by enabling legislation, set at time of district or zone formation	Yes	Capital expenditure
Joint development and asset recycling	Moderate	Can be up-front or ongoing, depending on the terms of the joint-development agreement	Duration set by the terms of the joint-development agreement	Yes	Capital expenditure
Sponsorship, naming rights	Low to moderate	Can be up-front or ongoing depending on the terms of the sponsorship or naming rights agreement	Duration set by the terms of the sponsorship or naming rights program or agreement	No	Both

¹Excluding in-kind and right-of-way exactions.

Source: Adapted from [Value Capture: Capitalizing on the Value Created by Transportation](#).

Step 2: Identify Infrastructure Investment Benefits and Beneficiaries

Value capture is when publicly funded infrastructure creates disproportionate benefits for some individuals or entities and a portion of the disproportionate benefits are captured to help pay for the infrastructure. In this step, transportation studies and a market analysis identify project benefits and beneficiaries. Knowing who the beneficiaries are and how they benefit (e.g., increase in property values, new development opportunities, increased retail sales, improved roadway maintenance and operations) is central to identifying appropriate value capture techniques (see [How to Brief No. 4: How to Use Market Analysis for Value Capture](#)).

For example, a new industrial access road may benefit adjacent industrial property owners. If this investment is expected to result in a significant increase in property values, this value could be captured through a TIF district made up of the newly accessible properties. Alternatively, property owners may be willing to make a voluntary contribution or engage in negotiated exaction to help fund the infrastructure.

If transportation infrastructure is needed to serve new development, impact fees can be used to recover the infrastructure costs created by new development. An infrastructure investment made to improve roadways, bikeways, or parking in a downtown area can boost the value of commercial-retail properties and multifamily residential properties. A TIF could be used to capture this value, or businesses and commercial property owners could agree to establish a special assessment district to fund the improvement.

An ongoing investment in roadway maintenance and beautification may benefit the owners of retail, office, or industrial buildings along the roadway. Retail businesses and property owners often form business improvement districts to fund such ongoing maintenance (including regular litter collection, seasonal decorating, and branding) based on their share of benefits. Likewise, municipal governments may impose transportation utility fees on commercial and/or industrial property owners on a monthly or quarterly basis to fund ongoing maintenance.

Table 2 presents the revenue basis of common value capture techniques and the beneficiaries from which they are designed to capture revenue.

Table 2. Common Value Capture Techniques and their Revenue Basis and Beneficiary that Pays

Technique	Basis for Revenue Generation	Beneficiary that Pays
Impact fees	New construction (e.g., number of residential units, square feet of office space)	Developers
Negotiated exactions	New construction (upon zoning/permitting approval)	Developers
Transportation utility fees	Trip generation rates (typically estimated using land use, number of parking spaces, building square footage, or gross floor area)	Developers, businesses
Special assessment district	Property values (assessed value), usually commercial (non-residential) properties only	Businesses and commercial property owners
Business improvement district	Participating businesses determine the revenue basis (subject to statutory regulations)	Businesses and commercial property owners
Land value tax, split-rate property tax	Property values (assessed value)	Property owners
Sales tax district	Ad valorem tax on volume of retail sales at businesses within the district	Retail businesses
Tax increment financing, transportation reinvestment zones	Incremental increase in property values measured against a pre-investment baseline	Developers, property owners
Joint development (including above-grade and utility)	Market value of the ability to develop above, at, or below the public right-of-way	Developers
Asset recycling	Market value of the asset	Developers
Sponsorship and naming rights	Negotiated value of the marketing opportunity (may not produce revenue, benefits may be collected as in-kind services)	Businesses and civic groups

When the list of techniques that meet funding needs (Step 1) has been narrowed down to those that can capture benefits from the beneficiaries equitably (Step 2), the final step is to evaluate economic and real estate market conditions.

Step 3: Evaluate Market Conditions and Public Policy Goals

In this step, market analysis is used to look at the local and regional economy and real estate markets. Businesses' decisions about where to locate and households' decisions about where to live depend in large part on the cost of doing business and the cost of living. These costs are driven by supply (e.g., availability of housing units, retail, office and industrial buildings, and developable land) and demand (e.g., population growth, job growth), as well as taxes and fees. In deciding where to live, work, and operate, businesses and households consider these costs along with the benefits, such as good schools, natural beauty, quality of transportation options, and workforce skill level. The costs and benefits of one location are compared with those of other locations, which could be as close as a neighboring jurisdiction or as far away as another state or even country. Revenue collected through value capture is just one cost among many, and the extent to which it affects private sector decisions about where to work and live depends on the wider economic and real estate market and the availability of lower-cost alternatives that offer similar benefits (see [How to Brief No. 4: How to Use Market Analysis for Value Capture](#)).

From an equity standpoint, a fee paid by a beneficiary is preferable to a general tax on all taxpayers. But just as businesses and developers may avoid areas with high general tax rates (such as property and income taxes), businesses may choose development or redevelopment sites just beyond the boundaries of a value capture zone. Even if a fee is fair or if the benefits of the transportation investment outweigh the cost of the value capture fee, a business or developer might choose a site outside a value capture zone if by doing so it can obtain similar benefits without contributing a fair share to the cost of the infrastructure.

Of course, high general tax rates can stifle or divert economic activity, but so can failing to invest in needed transportation infrastructure. The advantage of value capture is that techniques can be selected and tailored to avoid unwanted market responses and promote desired market behavior (e.g., affordable housing provision, job creation and expansion, compact development patterns). This is done by selecting a technique appropriate for the economic and real estate market context, determining how the implementation can be designed to augment other public policy efforts (if desired), and avoiding potential unintended consequences.

Table 3 presents an overview of the economic and real estate market conditions suitable for common value capture techniques and their potential market effects. The last column summarizes potential interactions with other public policy areas. This information can be used to tailor the implementation of value capture techniques to support public policy goals and mitigate undesired potential effects.

Table 3. Suitable Economic and Real Estate Market Conditions and Potential Effects on the Market and Related Public Policy Areas

Techniques	Economic and Real Estate Market Condition	Potential Effects on the Market	Potential Effects on Public Policy
Impact fees, negotiated exaction	Rapid growth, strong demand for new development	Allows provision of transportation infrastructure to keep pace with rapid growth	Encourages urban redevelopment compact development patterns; discourages development in areas poorly served by infrastructure; avoids burdening existing areas of a jurisdiction with the infrastructure costs of high-growth areas.
Transportation utility fees	Economy characterized by strong demand for business-serving transportation infrastructure. May be appropriate for a distressed commercial or industrial area if underperformance is at least partly due to deteriorating infrastructure and if demand from surrounding areas is strong.	The more closely a transportation utility fee is linked to actual usage rather than to rules of thumb or national averages, the more it functions like a user fee and avoids undesired market impacts.	The additional cost of the user fee could add to real estate rents or purchase prices, which creates a disadvantage for business attraction and expansion (economic development). Ensuring that the benefits of transportation utility fees outweigh this disadvantage (or perception of disadvantage) is important, particularly in distressed areas.
Special assessment districts, business improvement districts	Strong growth; distressed economy due to underinvestment in infrastructure.	The more closely the district boundaries reflect the benefit areas created by the infrastructure investment, the better the assessment approximates a user fee and therefore does not affect the amount of development or redevelopment.	Does not negatively impact other public policy goals.
Land value tax, split-rate tax	Any	Encourages highest and best use of land under any economic or real estate market conditions. The land value tax rate remains the same and building additional housing units or built space does not increase the amount of tax paid (or in the case of a split rate, has a lower overall impact on the total taxes paid).	Requires growth in the value of land to provide revenue to fund transportation infrastructure, but even in the absence of growth, encourages the highest and best use of land because the tax on the land must be paid even if the land is undeveloped or underdeveloped; developing it does not increase the taxable value (or with a split-rate tax, has a lower impact on taxable value than if property and building were taxed at the same rate); discourages land speculation (i. e., holding undeveloped or underdeveloped properties in anticipation of future value) that restricts the amount of land available for development and therefore artificially inflates real estate prices.

Techniques	Economic and Real Estate Market Condition	Potential Effects on the Market	Potential Effects on Public Policy
Sales tax districts	Strong economy with significant demand for population-serving retail and services.	The incremental difference in sales tax rate created by a sales tax district is typically small and unlikely to affect consumer behavior negatively, except if the sales tax district borders a jurisdiction with a significantly lower tax rate. In such a case consumers may divert some retail spending to the lower-tax area.	A sales tax increase may disproportionately impact lower-income households.
Tax increment financing, transportation reinvestment zones	Distressed areas or sites	Does not increase the property tax rate and therefore does not discourage development; increases property taxes only in proportion to benefits received through increased property value; may catalyze redevelopment for housing (including affordable housing), employment, and population-serving retail and services.	If used to fund infrastructure necessary to catalyze development that would not otherwise have occurred, can equitably promote economic development and affordable housing, but if used to support development that would have occurred without TIF revenue, acts like a subsidy, which may undermine equity objectives.
At-grade joint development, asset recycling	Any	Increases the supply of land available for development or redevelopment; impacts may depend on what is built but generally avoids negative market impacts.	May be used to lower the cost of development for affordable housing or industrial development.
Above-grade joint development	Strong economy with significant demand for development that is constrained by lack of at-grade development or redevelopment sites.	Increases the supply of land available for development or redevelopment; impacts may depend on what is built but generally avoids negative market impacts.	May be used to lower the cost of development for affordable housing or population-serving retail and services (e.g., grocery store).
Highway sponsorship programs	Any	None	Compatible with fleets such as sponsored highway safety patrol vehicles and safety campaigns such as Safe Phone Zones; can be tailored to support a range of public policy goals such as native species preservation, placemaking, and downtown gateways.

Conclusion

Determining the magnitude, duration, and timing of the funding need, identifying benefits and beneficiaries, analyzing economic and real estate market conditions; and considering the relationship between each value capture technique and public policy goals helps project sponsors identify appropriate value capture techniques to meet their transportation infrastructure funding needs. This process may identify more than one appropriate technique. In such a case, the agency can refine selection criteria further, according to factors such as political acceptability, stakeholder support, or administrative feasibility. Multiple value capture techniques can also be used together. This is indicated when an infrastructure project creates multiple types of benefits that accrue to different groups of beneficiaries. It can also be appropriate when one technique helps mitigate market risk associated with another, such as when a special assessment district is created to backstop a tax increment financing district.

[Value Capture: Capitalizing on the Value Created by Transportation](#) provides additional information and decisionmaking tools. A large collection of [case studies](#) illustrates how value capture techniques have been used to meet infrastructure funding needs in a range of economies, real estate markets, and public policy contexts.