Public Finance Concepts for Planners

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Abstract

What should planners be taught about public finance? This paper has three primary goals: First, to revisit the proper facilitating roles of public planning in the private economy, second, to summarize the rationales for financing those roles and, third, to illustrate the fiscal dimensions of several popular land use strategies, such as the fiscalization of land use, development impact fees, and transit- oriented development.

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Introduction

The Fiscal Implications of Planning

How does money matter for planning? Can or should we prepare or compare plans on fiscal grounds? If so, how?

Clearly, money matters greatly and often plays a central a role in the design, substance, and implementation of city plans and associated regulatory practices. How smartly is a separate issue. One everyday way is with respect to overt spending and revenue implications for local government budgets. For example, uncomplicated calculations of how land development alternatives rank with respect to associated service demands are often compared to the revenues they are expected to produce. In pure accounting terms, does the project add to or subtract from the municipal bottom line? While only one dimension of how a given project will contribute to or detract from the community quality of life, this is nonetheless a quite customary basis for favoring commercial over residential development, and often implemented as part of broader "fiscalization of land use" strategies that explicitly frame land use planning as a net revenue enhancing process (Misczynski, 1986; Altshuler and Gómez-Ibáñez, 1993).

The underlying appeal of this approach to land use planning is therefore plain. On a simple level, residential development looks and feels service intensive and thus relatively costly (via the associated demand for schools, parks, and so on), while commercial land uses often appear to generate substantially more revenue per acre – especially such uses as big box retail and car sales. While some balance is usually considered necessary for additional reasons, city hall debates over alternative proposals for individual sites often turn on these projected public finance impacts, especially when local budgets are under severe pressure.

And yet this strategy has at least two major problems in practice. One, these calculations of spending and revenue impacts are more complicated than usually described. Many analyses of the net fiscal impacts of different land types employ assumptions that, while convenient, are not grounded in actual experience or which significantly oversimplify.

Perhaps more seriously, this calculus is only partial; it ignores any number of additional costs and benefits that matter greatly, even if they do not always appear on the local budget balance sheet. For example, elementary fiscal impact calculations do not normally reflect the expected actual *incidence* of taxes, spending, or regulatory burdens – or their associated equity implications. Moreover, they rarely if ever show the *efficiency* costs of various behavioral distortions, such as those brought about by tax, spending, or regulatory policies that unintentionally change behaviors. Neither do budgets show the *value* of services rendered, especially where these involve providing so-called *public goods* or correcting *externalities*.

All these additional fiscal impacts matter, often substantially, and yet they may not typically be well understood by the planners who bring them about. This paper is mainly

aimed at addressing that knowledge gap by explaining the terms in italics in the previous paragraph, and their relevance to planning.

To do so, we first sketch the structure of the finances of government (out-of-pocket expenses, and how they are paid for) as a prelude to a profile of the public economics of urban planning (how spending, revenues and regulation affect the private economy and general welfare). The 1st is cash flow; the 2nd is behaviors and how they matter to urban planning.

This is presented in six sections: Fiscal context, the economic rationale for local government and urban planning, discussions of the fiscal effects of public expenditures, revenues, and regulations, and a closing assessment.

Context

Fiscal Dimensions of Local Government, in Numbers

Every planner knows that public actions have fiscal consequences. The general plan and zoning maps will affect the services required, and their cost, while also influencing the revenue stream. These plans, and proposals for variances from them, are often debated on nakedly fiscal bases. In addition, changing economic situations can encourage localities to further reduce service costs in future development, or to enhance sales tax generation, or to charge fees for services for budgetary reasons. In addition, planners know that the regulatory environment can encourage or discourage different development forms and behaviors.

To clarify the baseline for these consequences, this section summarizes several broad yet key trends regarding the fiscal situation of local governments. These include revenue patterns, on the one hand, and expenditures on the other. Rather than examine the details of the economic activities of local governments (as in Blair and Bingham, 2000, or Fisher, 2006), or specific budgetary practices (as in Lucy and Fisher, 2000, or Vogt, 2004), the idea here is to quickly overview fiscal circumstances and trends as a springboard for the discussion of underlying public finance concepts to follow.

A convenient place to begin is with an outline of the structure of government in the U.S. The three broad categories are the federal government, states, and then the multitude of general and special purpose local governments below states. Most discussions of which public activities are best suited to which level of government, and which revenue sources, start with Musgrave's (1959) argument that government has three broad functions: Macroeconomic stabilization, income redistribution, and what he termed "resource allocation." While Musgrave suggested that the first two are probably best addressed at the national level, he also made a case for how the last – mainly public spending and revenue responsibilities – might be most appropriately divided among federal, state and local levels (see also Oates, 1972).

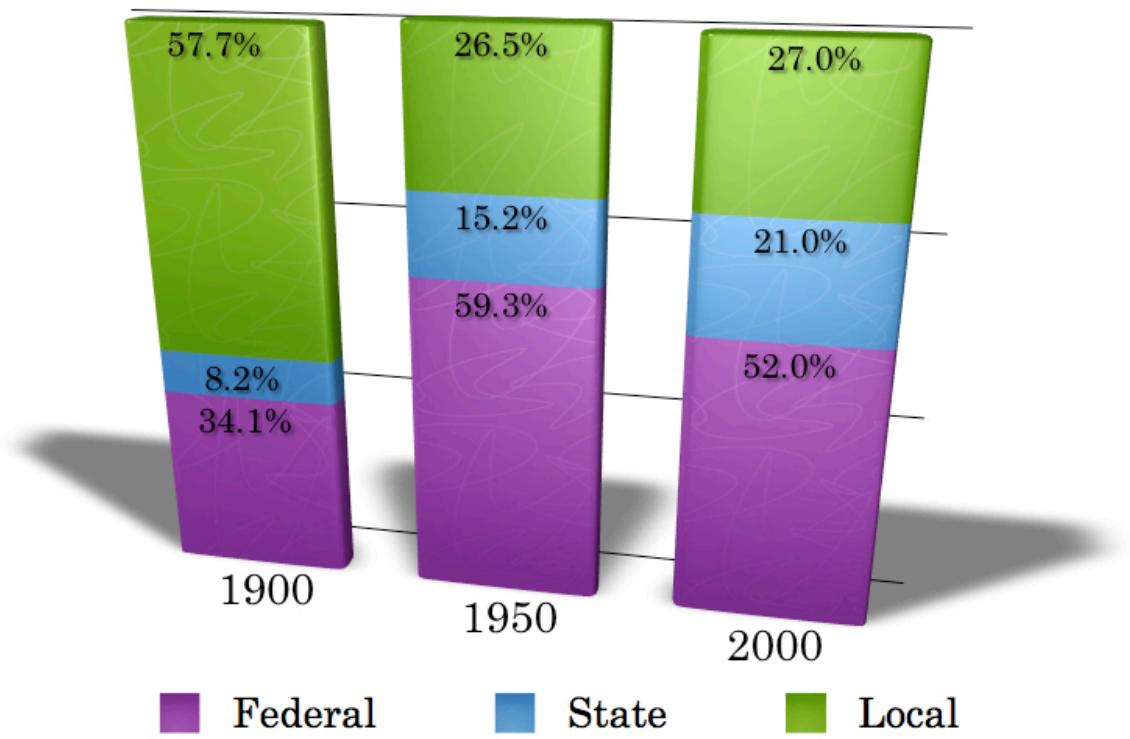
Loosely, the reasoning is that spending decisions should be made by those governments as close to the user as possible in order to best reflect local variation in demand. This logic mostly carries over to revenues as well, except where local taxes are relatively easier to avoid. Thus, revenues should be collected in a way that weighs the advantages higher governments tend to have in their collection against the efficiency problems of separating user benefits from costs. That is, residents should in principle both receive public services that are responsive to local circumstances and pay the

associated cost, with the caveat that full cost-recovery is much more problematic for small jurisdictions than large ones. Significant differences in sales tax rates between adjacent counties can lead to migrating shoppers. Differences in local income or property tax rates can lead to migrating residents.

At the local level, this implies that municipal governments should probably have primary spending authority in many areas, paired with a revenue capacity that may not, and indeed should not, measure up. Rather, local governments may quite properly rely on higher governments to fill this fiscal gap by way of properly designed intergovernmental grants.

We consider many elements of these "fiscal assignment" issues further in the sections to follow. Before doing so, we take a few pages to simply review how the balance of such tasks have in practice shifted over time. In fiscal terms, local functions were initially the most important of all three, as shown in Figure 1. In 1900, local governments (which includes counties, cities, townships, school districts, and other special purpose districts) were responsible for nearly 60% of all government spending. This trend has reversed dramatically over the last century, partly as national responsibilities such as defense and social insurance have grown, along with changes in revenue sources such as the national personal income tax, and partly as many local functions were centralized to the state levels as state income and sales taxes grew as a proportion of public income.

Figure 1: U.S. Government Spending Shares Over Time
(Source: U.S. Census **Statistical Abstract**, various years)



For example, Figure 2 illustrates the relative share of revenue sources for state and local governments combined in 2003. While most attention usually falls on taxes, note that the two largest sources are miscellaneous charges and federal aid. This reflects the growing role of fees-for-services and other user charges, as well as the continued importance of federal transfers to lower levels of government. Note, though, that more than three quarters of combined State and Local revenues remain own-source. Figure 2 also shows that tax revenues are fairly evenly split among four sources: Property, Sales, Income, and the residual category Other.

Figure 2: State & Local Government Revenue Sources, 2003

(Source: U.S. Census Bureau <http://www.census.gov/govs>)

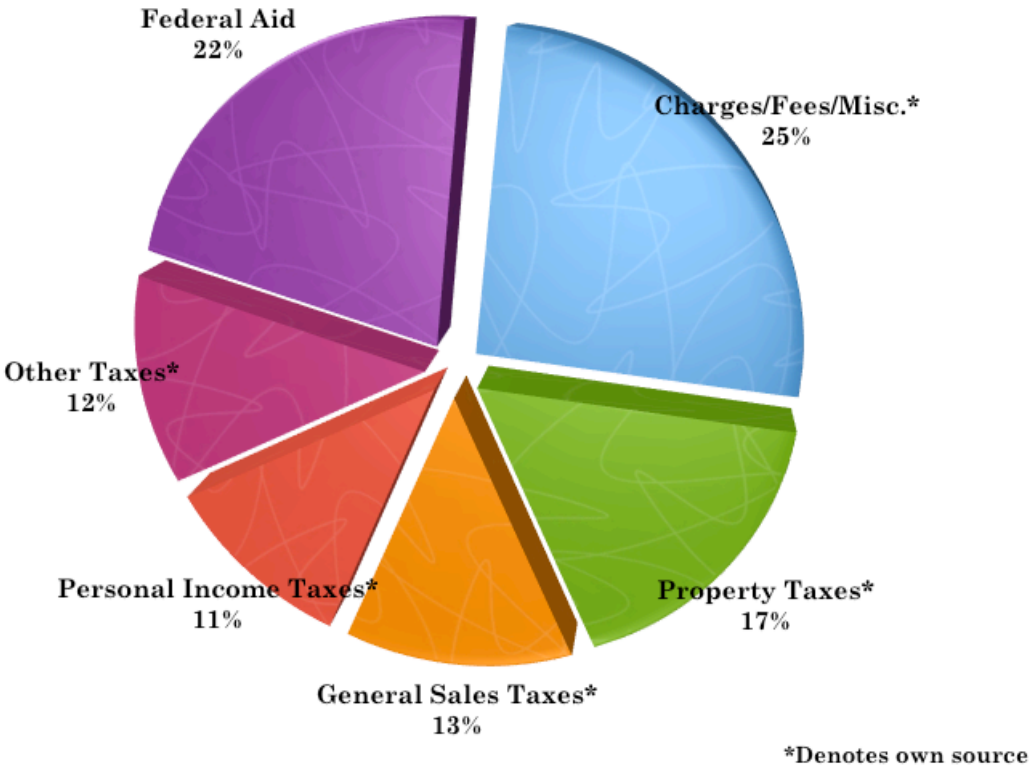


Figure 3 looks only at *local* revenue sources, where a different pattern emerges. The largest share is now state aid, followed by property taxes and charges. Other taxes are much less important as revenue sources, though this can vary considerably from state to state and even within a given state. Note also that, as a national average, 60% of local revenue comes from own sources rather than from other levels of government.

Figure 3: Local Government General Revenue Sources, 2003

(Source: U.S. Census Bureau <http://www.census.gov/govs>)

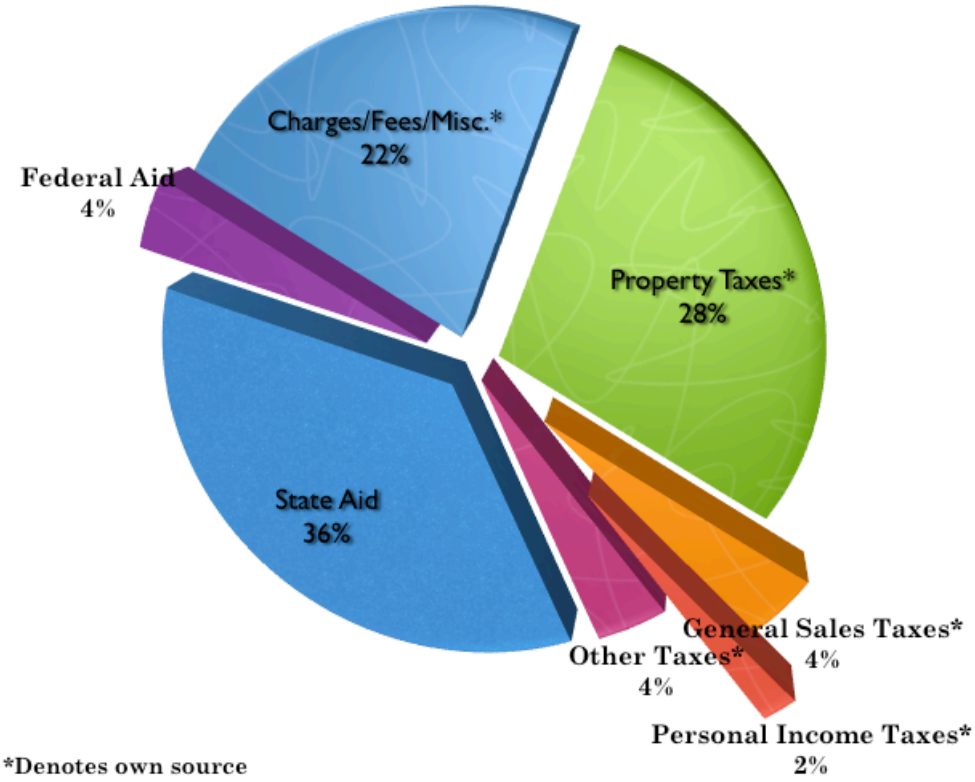
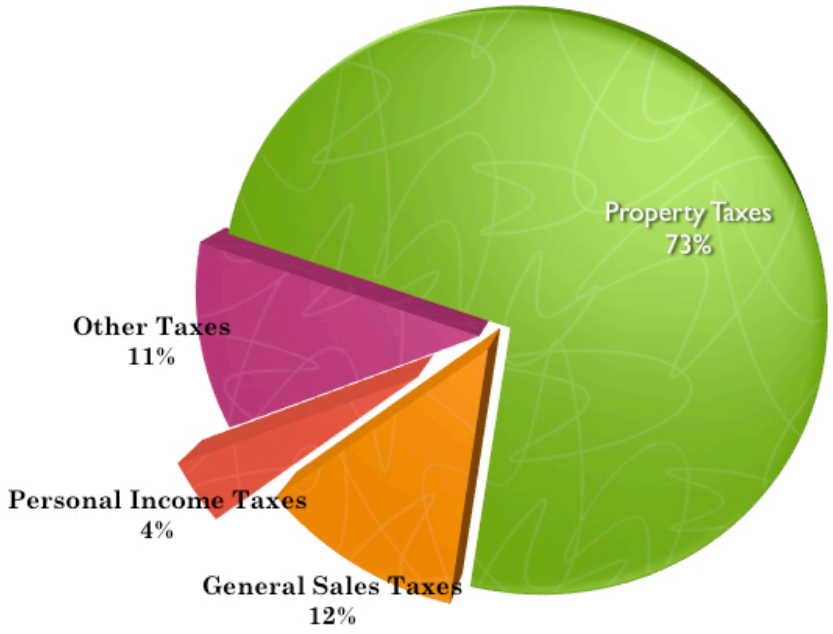


Figure 4 looks only at local *tax* revenues, where the dominant position of property taxes emerges very clearly. While nontax revenues, especially in the form of aid from higher governments and miscellaneous charges, are substantial, sales and other taxes are also increasingly significant – especially in states where property tax caps limit the ability of local governments to set property tax rates or reassess property at market values.

Figure 4: Local Government Tax Revenues, 2003
(Source: U.S. Census Bureau <http://www.census.gov/govs>)

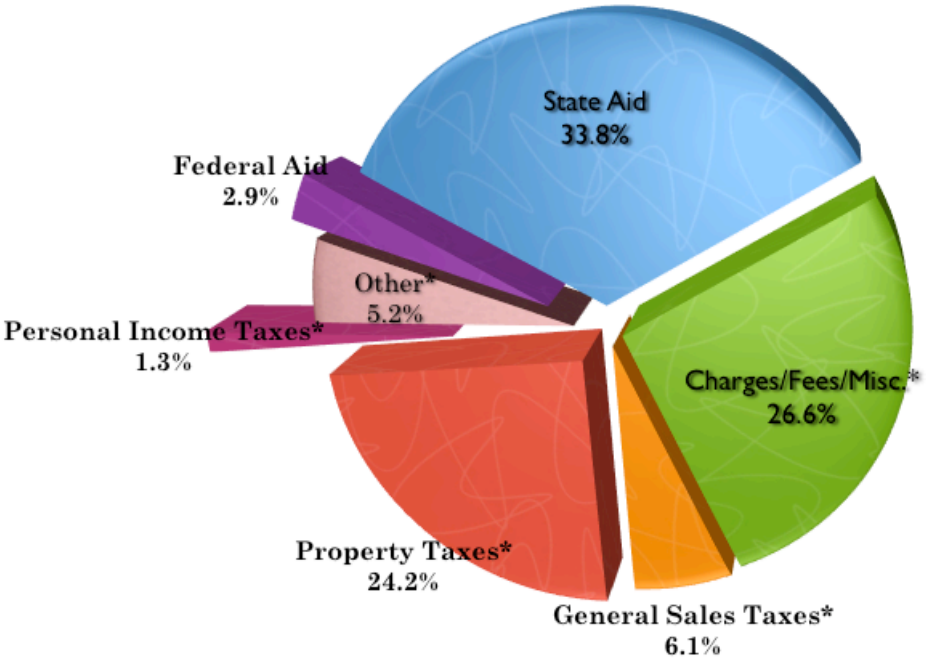


Among different kinds of local governments, these patterns again vary considerably by local government type, diversity of purpose, delegated authority and outside financing. Counties and municipalities are general purpose units (as opposed to special districts that are limited to specific purposes and related revenue sources) that have the broadest range of revenue sources. They rely for the most part on property taxes and charges, intergovernmental transfers, and sales and income taxes. (Townships, a general purpose category of small government units used in 20 states, rely more on property taxes than counties or municipalities, except in New England where they resemble municipalities.)

Figures 5a, 5b and 5c summarize the national averages for 3 of these in 1997. Municipalities and counties show similar revenue shares in several categories, except counties rely more on state aid and less on personal income taxes (which, in any event, are limited to a few, large cities). Special districts, such as water and sanitation districts, are considerably more self-supporting (especially for noncapital expenses) and rely much more on user fees and charges.

Figure 5a: Local Revenue Shares in County Governments, 2002

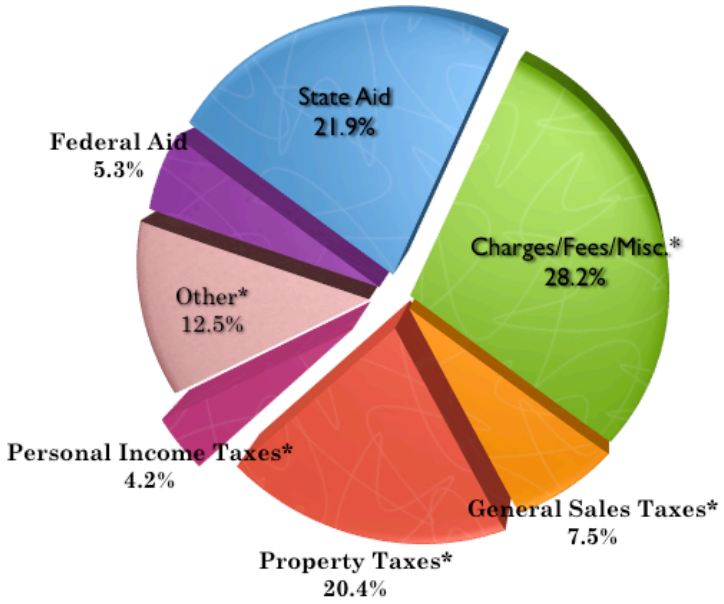
(Source: U.S. Census Bureau <http://www.census.gov/govs/estimate/0200ussl_2.html>)



*Denotes own source

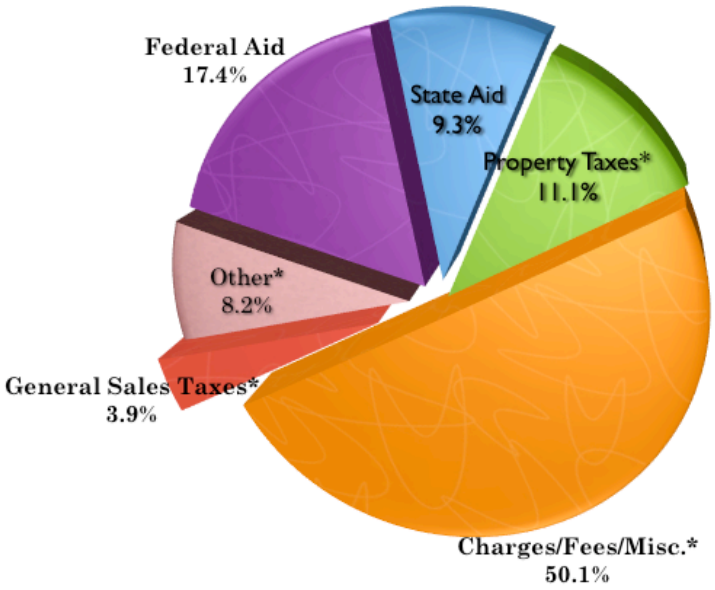
Figure 5b: Local Revenue Shares in Municipal Governments, 2002

(Source: U.S. Census Bureau <http://www.census.gov/govs/estimate/0200ussl_2.html>)



*Denotes own source

Figure 5c: Local Revenue Shares in Special Districts, 2002
(Source: U.S. Census Bureau <http://www.census.gov/govs/estimate/0200ussl_2.html>)



*Denotes own source

Against this backdrop of local budgets and their sources, how are these relevant to land use planning? Part of the answer requires understanding the role of planning in the economy, and then its public finance consequences. The next section introduces both.

The Public Purpose of Planning

To understand how planning both helps and hurts private economic activity, it is first necessary to explain what we mean by *help* and *hurt*. That begins best by establishing two reference points: What private markets do well, and then where they fail to do so. This turns out to provide a fundamental rationale for why we engage in public sector planning at all. Although on the surface planning often appears to interfere with the economy, a more accurate description it that it is designed to permit private markets to function better.

We separate this question into two parts: Why have local government at all, and what are the purposes of planning in those governments?

The merits of the private economy

The most familiar story of what private market economies do well is often called "the invisible hand" theorem, after Smith (1776), but a better name would be "the invisible planner" theorem. Loosely speaking, it says that an economy of self-serving, uncoordinated, individual buyers and sellers does just as well as an all-knowing central planner would in determining which goods to make, how much they should cost to make,

and then how much they should sell for. Since real planners know considerably less than all, this is an incredibly fortuitous outcome and a powerful argument for relying on markets rather than planners to perform economic functions.

To lay this argument out quickly, we use a highly stylized version of how markets operate – a version close enough to get the key insights across without simplifying so much as to be beside the point.

This is a story of supply and demand. On the supply side, firms compete against each other for business, bidding prices down to get sales until only the most efficient firms survive to sell only those goods their customers value at those prices. The key requirement here is competition, which leads to low production costs. On the demand side, individuals also compete, in this case against each other to purchase goods, bidding prices right up to the most they are willing to pay, but no more. Here, competition thus leads to prices that reflect the maximum value of those goods to buyers. Together, supply and demand competition leads to prices that equal both minimum producer costs and maximum consumer value.

As if guided by a really good invisible planner, goods end up allocated to those who value them most, at the lowest feasible cost. Moreover, firms produce those goods that people value most. If prices are too high relative to demand, firms will accumulate inventory and bid prices down. If prices are too low, there will be shortages and consumers will bid prices up, stimulating producers to produce more. The so-called market price is thereby where the amount sold is equal to both the amount produced and the amount demanded, and is then also equal to both the minimum cost of producing the good and the maximum value to buyers. Goods can't be made cheaper without firms going out of business. They can't be priced any higher without going unsold, or any lower without leading to shortages. In this sense, the market outcome is said to be "efficient."[1]

An all-knowing planner can do no better in this instance. A mortal planner could indeed do much worse. The key implication of this set of arguments for markets, as a planning mechanism, is that you mess with well functioning markets at your own peril. In many important respects, they do what they do extremely efficiently, and are normally self-correcting if left to their own devices. Naïve interventions will result in shortages, surpluses or worse.

This is a potent result. It is also somewhat fanciful in that it requires a good number of critical conditions in order to hold. When any one of these is violated, as they commonly are, the result can be much less neat. Indeed, we say in such cases that the market "fails," where we mean that it fails to be efficient. (The flip side of this is identifying the conditions required for governments to do right by some standard, and the implications of those conditions not holding, as in Wolf, 1988.)

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[1] But what efficient means depends on what you mean by efficiency, which has many different definitions. Here, economists are specifically referring to a fairly conservative criterion known as Pareto efficiency. In brief, it refers to a situation that cannot be improved without someone being made worse off. Put another way, an outcome is efficient if there are no additional mutually beneficial trades to be had.

Moreover, there are many potential sources of market failure. These include a lack of competition (e.g., monopolies) or information problems, or a triology of concepts that provide the primary economic rationale for local government and public planning: *public goods*, *externalities*, and *equity* concerns. In these cases, markets can typically be made efficient only via nonmarket interventions, such as by governments. These are defined and explained in turn below.

Cause of market failure: Public Goods

"Public goods" are things that people value and would be happy to buy at the store, but which have certain problematic technical properties that tend to keep them out of stores. Before listing those, it is worth emphasizing that the word "public" here does not suggest in any respect that such goods are or must be provided by the governments. It is no more than a label, used for historical convention, that may suggest but does not require government provision. They are sometimes called collective goods for the same reason.

Definitions

The two main problematic properties are usually called *nonrivalness* and *nonexclusiveness*. The problem of nonrival goods is that they can be easily and perhaps even costlessly *shared*. Examples would be an empty highway, an empty park, or a housing or zoning code that maintains certain standards for the community as a whole. Once the good or service is available to any one person, the same amount (or nearly so) is also available to others.

This might sound like a good thing. In many respects it is, but private competitive markets choke on such commodities because they are hard to make money on. Say you make this kind of thing and sell one. If it can be shared, and it is (see next paragraph), why would anyone buy another? Seeing the writing on the wall, private firms will instead go into another line of business.

An often related but distinct problem refers to goods that you can't keep people from gaining access to or use of; these are called nonexcludable. Simply, you can't prevent anyone from consuming that good. An example would be unscrambled radio waves or the benefits of living in an area with low crime rates. Once you've lowered the crime rate, or cleaned up the air, or sent out the radio wave, everyone nearby has access.

Note that, as shown in Table 1, some nonrival goods are excludable. The technical term for these is *club* goods, which makes sense since these are goods that can be both shared and restricted, as in a private club (Buchanan, 1965). You can put a fence around a pool or a golf course, or require a certain test score for eligibility, and so on.

Also, some nonexcludable goods are rival, which are sometimes called *commons* goods. As in the famous "problem of the commons," these can be used up but are often open to many (Hardin, 1968). Even free parks or wide open pastures can eventually get crowded. More to the point, there are few, if any, examples of "purely" nonrival or nonexcludable goods, but many examples of goods that have some degree of either or both. (Impurely nonrival goods are said to be "congestable." Impurely nonexcludable goods are partially excludable.)

Table 1: Kinds of Private/Public Goods

	Excludable	Nonexcludable
Rival	Pure *Private* Goods (e.g., a bicycle for one; a grape)	Commons goods, with open access (e.g., aquifers; an air basin; ocean fish; crowded city streets)
Nonrival	Club goods (e.g., concerts; movie theaters; YWCA; toll roads)	Pure *Public* goods (e.g., a large, uncrowded public park; national defense)

Problems

Nonetheless, any degree of either characteristic might cause the private sector huge headaches when trying to supply them. How would you sell a nonrival good, such as clean air? Once available, everyone can use it, so it isn't as though the next person comes along and says, "I'll take one of those also, please." And if the good is nonexcludable to boot, you can't even keep them from consuming it. If you can't control or monitor consumption, tracking and enforcing sales is a problem. So who and how would you charge in order to cover costs and stay in business?

Nonexcludability in particular can lead to what is called the "free rider" problem (Olson, 1965). A person can't consume so-called private goods (rival and excludable) without revealing their desire to do so. This permits suppliers to charge prices and recoup costs. But revealing one's demand for a public good isn't necessary to consume it, since it is already there and no one can be kept from consuming it. Using the clean air example, again, if I were asked to contribute toward the cost of cleaning the air, I might say that I don't much value clean air at all, or hardly at all, and thus won't help pay for it. There is no market mechanism to force me to reveal whether this is truly how I feel or not. This seems dishonest, particularly the way I phrased the example, but many studies have confirmed the free rider problem – even if it only describes a small share of users – as a force to be reckoned with.

Indeed, the free rider problem is probably the main obstacle to the private provision of excludable public goods, or at least a sufficient amount of it. There are various means of minimizing this problem, from education to moral arguments to compulsory consumption, and we see all these commonly in use. Pledge drives to raise funds for public radio or public television, when those are otherwise available without charge on the public airwaves, are another example.

The bottom line is that, though no fault of the goods themselves, their sellers, or their consumers, public goods are difficult to market for gain. This is so even if a large number of people are willing to pay. Their purely technical (rather than, say, legal, social, or economic) characteristics keep suppliers from selling them, and monitoring their sales, in the normal way. So they tend not to provide them at all, or they provide less than actual demand would justify. It doesn't pay to supply it, and it doesn't pay for individual users to reveal their true demand.

Remedies

The trick, then, is figuring out a way for a group of people, who want and would share the good, to cover costs. A collective response might work better, where a group gets together and agrees to split the cost of a good they will share among themselves. This is indeed a principal rationale for governments, though it can happen without them.

Imagine a neighborhood organizing a resident association to maintain common landscaping or a community pool. In fact, there are many so-called private governments in existence. The key element is that collective, group action and coordination can solve the problem caused by nonrival or nonexcludable features of some valuable good or service. Providing collective, coordinated action is a fundamental explanation for the existence and traditional functions of local government (e.g., Musgrave, 1959; Stigler, 1965).[2]

In particular, public provision avoids the free rider problem by the ability of governments to require payment for publicly provided goods in the form of taxes or other fees. Taxation is coercive precisely due to the free rider problem; namely, that coercion is one solution to the problem of individuals not having the incentive to reveal their willingness to pay for a nonexcludable good. Public provision is not the only solution, however. Public subsidies to private suppliers would accomplish much the same.[3]

In addition to the easy examples of public parks, public schools, public street lighting and the streets themselves, briefly consider two others.

Affordable Housing

Is "affordable housing" a public or private good, or something in between? Many quality-of-life elements of a community have public good elements, especially where they are seen as benefiting residents, or a significant subset of residents, as a whole. If

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[2] Note that municipal enterprises are often monopolies, another classic source of market failure. Private sector monopolists charge too much and provide too little of their product, relative to competitive markets. This can and should be avoided in the public sector, but can also lead to cost-recovery issues for declining cost industries, such as water, sewage and other utilities. In those cases, pricing at marginal cost will require additional subsidies to cover facility investments. In addition, as discussed below, local municipal enterprises can be characterized as competing for customers to the extent they compete with other cities for residents.

[3] It is also useful to comment on the superficial difference between ownership and management in the provision of public services. For example, some water agencies own and manage their facilities and operations, while others own the physical infrastructure but subcontract its management, and still others simply regulate private enterprises that provide such goods and services. At the level of detail in this paper, there is no important distinction between these models. In each case, the test is if collective intervention is necessary to correct market failure. That intervention can take any of these three forms, and should amount to the same outcome. In practice, however, the details of governance, administration and implementation will reveal advantages and disadvantages of each provision model in each case.

the economic diversity or general cost of living of a city or neighborhood is considered an asset, then it indeed has public good features. And because it is nonrival within the city (and nonexcludable since people are free to move there), it is unlikely to be voluntarily provided at desirable levels by the private sector.

This was one of the key rationales for public housing projects, which were in many cases both constructed and operated by public housing authorities. More recently, such efforts tend to come in the form of regulatory requirements (e.g., inclusionary zoning) or subsidies (e.g., construction or rent subsidies).

Public Health

Many of the strongest arguments for improved housing conditions among lower income households in the early 1900s were based on the observation that crowded and unsanitary conditions had health consequences that extended beyond individual families, or possibly beyond their neighborhoods. Early zoning, crowding, and infrastructure regulations were thus based on public goods/externalities reasoning (Fischel, 1985).

More recently, there is growing interest in how the physical design of communities affects personal health, by either promoting or discouraging physical activity (e.g., National Research Council, 2005). Planners are asked to promote the mixing of land uses, higher residential densities, and bike- and pedestrian-friendly plans in public spaces, all in the interest of health benefits that will be shared by many.

Cause of market failure: Externalities

A related problem for private markets is that of "externalities." These are goods or actions that impose costs or benefits on others that are not mediated by markets. They are also called third party impacts, or spillovers, meaning they impose burdens on persons not party to the transaction. Say I play my car stereo so loud that in addition to making me dizzily happy, as planned, it also wakes babies up as I drive by, which was not planned. Put yet another way, negative externalities are actions where the private costs of a market transaction are less than the total social costs; positive externalities are actions where private benefits are less than total social benefits. The former thus tend to be oversupplied and the latter undersupplied.

A textbook planning example is a new shopping center that, in addition to increasing tax revenues in that town, generates additional traffic in the neighboring town. If my retail development dumps traffic into your town and I am not held accountable, the market generally does not acknowledge that your residents suffer the consequences. (Who suffers depends on the time frame, among other details. If it is an unexpected, short term exposure, residents may not be able to avoid the traffic impacts. Over the longer term, if the damage is well known, then people will refuse to live near those streets – or to pay much for doing so – and it is the owners of impacted land who will absorb much of the traffic cost in the form of depressed land value.)

We tend to have laws to address such coordination problems and this is exactly why. One party is imposing a cost on others that no market transaction accounts for. We wouldn't need laws if markets permitted all parties to fairly negotiate an accommodation. In this sense, we say such a market fails to operate efficiently. Again, collective action is one way of responding to the underlying difficulty, which is coordinating multiple parties

in ways markets fail to do. This can translate into regulations on certain behaviors and not others.

If the developer were held accountable somehow, so that it had to compensate those suffering the consequences of its traffic, it would likely change its behavior. It might well either scale back the project, or relocate, or seek to mitigate the newly generated traffic problems.

Individual drivers, by the way, are another classic cause of another familiar planning externality, traffic *congestion*.[4] While we all slow traffic when we drive during crowded conditions, we rarely account for this in our own decisions. We choose when and where to drive, or to not take public transportation, based almost exclusively on our own costs and benefits. The greater social consequences of those actions are typically ignored. Thus, we tend to drive more during peak times than we should.

To hold the creator of externalities accountable, whether traffic or pollution, may, again, require a collective response since there are rarely market mechanisms to do so. Within a city, *zoning* is one such response, which recognizes that "noncompatible" uses exist and thus should be spatially separated. This approach to the problem is not the only feasible one, but it has served in this capacity reasonably well over the decades. Other policy tools are taxes for negative externalities (e.g., to cover the social costs of pollution, traffic, etc.) and subsidies for positive externalities (e.g., tax deductions for home mortgages, subsidized tuition for public education.)

Put another way, the private market is not particularly adept at dealing with externalities unless there is a market in pollution, or noise, or whatever the problematic side effect is. When such markets are present, the problem may vanish. The classic example of a market solution to an externality is the farmer adjacent to the beekeeper, each of whom realizes that the other imposes positive externalities on the other (Coase, 1960). The farmer benefits from his neighbor's bees, who cross-pollinate the crops. The beekeeper benefits by having blossoms available to feed bees. If aware of this, they have an incentive to account for these positive externalities when negotiating how many bees and flowers to keep. No broader collection action is necessarily required.

Thus, another approach to externalities is to create markets in those external costs or benefits. An example is tradable permits for the right to pollute a certain amount in a given air basin. The regulator determines the absorptive capacity of the basin and the maximum advisable pollution level (a.k.a. the "cap"). It then opens a market for the right to pollute up to that limit. In this instance, firms are forced to recognize the cost they are imposing by paying for the permission to pollute (OECD, 1992).

However, many circumstances are less conducive to market negotiations. The problem suggests a broader perspective that can account for both the costs and benefits of some activity, and determine the right balance. Hence, this kind of market failure is another candidate for collective action.

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[4] You will note that congestion was mentioned earlier in the context of public goods. In a general sense, a public good is a type of externality. The availability of public goods to everyone acts much as an externality that provides benefits to other which they do not control. Traffic congestion is a good example of an externality that is also a property of a public good, roads.

Cause of market failure: Equity

"Equity" can also be a source of market failure, in the sense there are social equity goals that markets do not ordinarily address. One example was affordable housing above, where equity enters as a kind of public good. Another view is to recognize that competitive markets in pure private goods represent the uncoordinated interactions of individual sellers and buyers. They do not account for the social merits of one distribution of resources and opportunities over another. (Note that Pareto efficiency, the standard by which we judge market success and failure, is not an equity criterion as such.) As a society, however, we might agree on some objections to the market outcome. We might, for example, agree that people shouldn't starve or that all children have a right to an education, or that housing should meet certain minimum quality standards.[5]

Without going into the details of the political and educational processes that would determine such things, it is reasonably clear that if these social concerns have standing then, again, some manner of collective approach is implied. Local governments often take on that role.

While standards of equity are not absolute, there are public finance conventions for criteria that help to structure any discussion. Two are *vertical* and *horizontal* equity. Horizontal equity concerns how equals are treated. A local example would be if similar properties are treated the same in the zoning code, or are taxed at the same rate. This kind of comparison is complicated by the many ways in which "equal" and "the same" can be measured. Moreover, actual policies violate horizontal equity quite regularly. Still, it is a standard by which we can evaluate alternative policies or processes. Vertical equity is a statement of how differently we treat different situations, and is thus more complex still.

In practice, any discussion of the fairness of one planning decision over another invariably involves the choosing of winners and losers. Opposition to Wal-Mart supercenters in California, and some other urban areas, is often organized by grocery workers' unions, since their wages are expected to be significantly reduced as Wal-Mart gains market share in the grocery sector (Boarnet, et al., 2005). This burden is cast as an impact that the community should resist. On the other hand, it is also the case that grocery prices will likely fall for the same reason. Local land authority planners increasingly find themselves asked to take sides on this issue, though there is no obvious basis for doing so as a general principle.

Then again, many local planning decisions are based purely on their distributional consequences – who wins and who loses – rather than on public goods or externality arguments.

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[5] Housing affordability was raised earlier as a possible public good. It is quite possible and consistent to consider many questions of equity as local public goods especially (Pauly, 1973), but for clarity we will stick with the convention of treating it as a separate example of market failure.

How does planning correct market failure?

So why and how do planners do what they do? A fundamental purpose of land use regulations is to address externalities and to provide public goods. (In practice, they also have important distributional functions but since those are less specifically concerned with public finances, I won't focus on those.) Many local amenities have public good characteristics over which planners exert substantial influence. To repeat, these include infrastructure, education, transportation, the land use mix, and the like.

More generally, the kinds of tools and instruments available to governments in order to intervene in markets to address market failure include:

- Public provision
- Regulation of behaviors
- Taxes and subsidies
- Assignment and enforcement of property rights & contracts
- Coordination, mediation, and facilitation

Clearly, governments (or some other collective action) should provide what we are calling public goods if unaided markets will not. Note that the privatization debate in local governments is sometimes about who actually produces the good or service and other times over who makes the decision of how much to provide (Sclar, 2001). In this paper, we do not differentiate between governments who provide plan-check services with their permanent staff, for example, from those who hire contract planners for that service. In both cases, it is the city council or equivalent that is making decisions about levels and financing of service.

In addition, government can improve market operations overall if it regulates behavior in the presence of externalities. Zoning is but one example, on which we have more to say in a later section on regulatory issues.

While taxes are generally considered a revenue source, as discussed below, they also have a critically important function as an alternative form of regulation. Taxes change prices, which change behaviors. Taxing pollution will reduce pollution. Subsidizing development near transit stations, on the basis that this will have positive externalities for the community overall, should increase transit-oriented developments (Boarnet and Crane, 1998). In economics lingo, we can use taxes and subsidies to "get the prices right," where that term was partly invented to suggest how to deal with externalities.

This may not be necessary if we get the property rights right. The bee/farmer example above was a case where the two parties could use a market transaction to address externalities, because their property rights extended to the external effects (honey and pollination).[6] Essentially, in that example, all affected parties trade in a market for

[6] The most common obstacle to the applicability of what has come to be known as the Coase Theorem (after Coase, 1960, who was awarded the Nobel Prize in Economics in part for his development of this insight) – namely that well defined property rights can lead to efficient markets in externalities – is generally considered to be transaction costs. On the other hand, such costs are probably best considered a

the external effect. Tradable pollution permits are an example of this approach, and one that has proven very successful to all.

How Much? What Level of Service?

As discussed earlier, markets generally don't provide nonexclusive goods – goods where consumption cannot be restricted, such as clean air – because they can't get people to pay for them. If you can't control access, you generally can't force payment. In the private sector, firms sell different quantities of goods to people at any given price. Everyone values the good at that price or higher, or they wouldn't buy it. Further, providers of private goods can observe how much people buy at each price. You buy an extra large coffee; I choose a small.

It is the opposite with public goods: By nonrivalry, one common quantity, such as park size or street capacity, is available to every user. What varies is how much they *value* that quantity, which is not observable. So how do governments determine either how much to provide or how much to charge?

Putting "public" goods out there in the marketplace, and seeing how people respond to different prices and qualities, won't work. Properly aggregating a group's diverse preferences to select the "right" quantity of a shared good or service is an obvious challenge. How much open space should be preserved? How good should the elementary schools be? What is the best mix of residential and commercial land use for our city? How often should the buses run? Consensus on such issues is rare.

One choice mechanism is democracy, which is to say majority rule. Another is delegation to elected or appointed officials. There are many, many others, which mainly share the fact that public goods are harder to make decisions about because they require *agreement* by users in a way that private goods do not.

Tiebout and Local Public Goods

One way in people appear to agree on these issues is their choice of which municipality to reside in. Many goods are only nonexcludable and nonrival locally, such as within a city or town. These could be called club goods but we more often call them *local* public goods. Their importance here is that the free rider problem is solved if people reveal their demand for such goods by moving to the cities that provide the amount they want at a cost of living they find acceptable – much as we shop car lots looking for the car we want at a price we like.

This way of thinking about the problem is often called the *Tiebout* hypothesis, after the economist who most clearly characterized it (Tiebout, 1956). That is, people sort across local jurisdictions according to their preferred level of local public goods. If people shop (and thus compete) for local public goods much as they shop for bread or cars, the problem of providing the right mix and amount of public goods is not so insurmountable. Tiebout called this decision process "voting with their feet."

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separate potential source of market failure in many contexts, including those involving collective action.

On the other hand, this argument seems to work best the more alike city residents are, which tends to mean the smaller the jurisdiction is. In larger cities, interests and incomes can be highly mixed, leading to no simple correspondence between the kinds and amounts of public services and residents. Smaller cities have also been accused of using zoning expressly to maintain income or other forms of mixing, known as exclusionary zoning (Levine, 2005).

Still, Tiebout's insight has been extended in several useful ways, including using the value of land as a measure of the value of government services, and in evaluating the merits of competition by local jurisdictions for tax base.

How to Pay? Revenues

The nonrivalness of many public goods is similarly unhelpful to public servants trying to pay the bills for those goods. Even if markets did provide such things, they wouldn't price them efficiently because, after the first user, the marginal cost of provision is zero (or varies with congestion). You can't cover costs by charging zero unless the first user pays everything. People do not tend to volunteer to be the first user in this situation. (Example: The first user of a road, or a park, or an improved road or an improved park.)

This is a complicated issue because revenues have many, often conflicting goals. They include:

- Revenue Adequacy
- Revenue Growth
- Equity
- Economic Efficiency
- Administrative Feasibility
- Political Acceptability

The discussion below evaluates each revenue source with respect to each purpose.

Kinds of Revenue

Table 2 lists a number of revenue types, and their corresponding basis. For example, sales and income taxes are considered to be broad-based, as they apply to broad categories of that tax base. The property tax, by contrast, applies only to property and is thus labeled narrow based.

In addition, revenues may be applied on a unit basis (e.g., 10 cents per gallon of gasoline), on an *ad valorem* basis (e.g., 6 cents per dollar), or on a fee per transaction basis (e.g., $1000 per building plan application). Further, they may be based on a stock of wealth, as with a capital gains tax, or on a flow of resources, as with a wage tax.

Table 2: Revenue Types

Revenue basis	Corresponding Revenue types
Broad based	Sales, VAT, income, trade
Narrow based	Property, sin, resource, hotel
Rate type	Unit, ad valorem, transaction
Wealth/flow basis	Capital gains, income
Revenue or corrective	Income, pollution
Ability to pay	Income & property taxes
Benefits	User charges & property taxes
Other levels of government	Transfers, intergovernmental grants

Revenues may have the purpose of only raising funds or they may mainly be corrective in nature, as in a tax to correct an externality.

Another common approach is *ability to pay*. Here, the tax bill is determined by the resources available, rather than the benefits received. A tax on income or wealth would be the clearest example. This is the basis for progressive tax systems – where the after-tax base is more equal than the pre-tax base – such as most income taxes with rising marginal rates.

Note, however, that the complexity of tax incidence implies that whether a given tax system is progressive or not is harder to gauge than it may seem. For example, is the property tax progressive? The so-called new view of the property tax that it may be, to the extent it is ultimately borne by the owners of mobile capital (Mieszkowski, 1972). On the other hand, it has proven harder than expected to demonstrate whether this holds in practice (Zodrow, 2006).[7]

[7] An equal tax per person, also called a head tax, is also in broad use. It has the appeal of being easy to calculate and hard to avoid (thus nondistortionary), and is often considered "fair" in some basic sense. On the other hand, it has the drawback of placing the same burden on everyone even if benefits are distributed quite unevenly.

Benefit based

Revenues may also be based on benefits received, also known as *willingness to pay*. Note first that this is how we finance private goods. The easiest example is an auction, where you would never pay more than you are willing, and where everyone openly competes on that basis. The winner is the person willing to pay the most.

This may not work for public goods because of the free rider problem, where there is no auction equivalent. Instead, a group collectively determines how much to provide. Individuals rarely, or at least do not consistently, reveal the value they put on that amount, as there is no market mechanism to help out. In sum, willingness to pay is a terrific way to pay for public goods, if only you could calculate it.

There are reasonable ways to measure the willingness to pay for nonmarketed goods, but they are indirect (Freeman, 2003). For example, the price of housing is often said to reflect the value residents place on, among other house attributes, the public services provided in that community. So, good schools may show up in higher home prices. Other studies have measured the value people place on recreational services by how far they are willing to travel to use them, and so on.

Table 3 lists examples of so-called benefit based revenue types, including those based on taxes and on charges. Special assessment districts, tax increment financing districts, and land value increment schemes are all ways of tying improvements to land value associated with public services to revenue streams.

Table 3: Benefit based

Category	Examples
Tax Based Techniques	Special Assessments Land Value Increment Tax Increment Financing
Development Charges	Plan check fees Impact fees
User Charges/Prices	Consumption measurable (e.g., metered) Service has no anti-poverty purpose

To better illustrate the complexity of these options, Table 4 considers one instrument in more detail, the property tax. As a way of raising funds to support the supply of local public goods, it has several advantages. It is locally based, has a good linkage to benefits via the private land market, it may tax wealth (and thus capture ability

to pay), is relatively predicable, and it is considered a particularly efficient tax in that it cannot be avoided (George, 1879).

Table 4: Property Tax

Advantages	Obstacles
• Locally Based Revenue • Close Linkage to Benefits • Taxes Wealth (may be progressive) • Can Promote Efficient Land Use • Low Efficiency Costs • Relatively predictable	• Difficult to Administer Fairly • Assessment Difficulties • Difficult to Enforce • Unpopular • Tax on Unrealized Income

On the other hand, the property tax also has disadvantages that limit its utility. It requires the regular assessment of land value and it due in regular lump sums in most jurisdictions. It is thus a very visible tax and, since assessment is an imperfect science, a debatable one. For these and other reasons, it is perhaps the most unpopular tax in the U.S. (and the world).

Fees, Prices, Charges

In some instances, the public sector provides goods where the individual benefits are observable, such as trash collection, or extracurricular activities at public schools, or the neighborhood pool. These are the best suited for what we call user charges, which is just another name for prices of publicly provided goods.

As summarized in Table 5, and as for private goods, prices for public services work best as charges for actual use (i.e., for willingness to pay). But this requires that use be easily observable. In addition, sustainable finance generally requires that prices aim to fully recover costs. Targeting price subsidies to only the poor is very difficult, though "lifeline" rates are a good option.[8] The administrative and political feasibility of full cost-recovery pricing are improving.

[8] So-called lifeline rates refer to lower prices for low-income households for amounts of the good or service below some minimal level, which is considered essential or nondiscretionary. For example, a jurisdiction may charge a very low price for the first 6,000 gallons of water used per month by low-income families. These are most common for electricity and other basic utility services. In practice, the term often refers to any discount offered to low-income users. (E.g., in San Francisco, a family of 4 earning less than $30,000 per year is eligible for a 25% discount on trash collection fees.)

Table 5: Types of Charges

Key Distinctions	Examples
• prices based on usage (i.e., "user charges") versus those with other bases (e.g., "taxes"), or • prices that reflect costs ("cost recovery") versus those that do not ("subsidies")	• "Market" prices determined by trade/commerce • Metered water/electricity rates by volume • Passenger/freight fares by trip distance/weight • Entrance/connection fees • Licenses/permit fees

Why do some governments charge for some goods that others do not charge for? Table 6 distinguishes between services that are often priced versus those that may be but often are not, where the distinction is between those for which benefits are observable or not.

Table 6: Priced Services

Types of Priced Services	Key Distinctions
<u>Usually</u> • Water/electricity/ utilities • Public transportation • Public housing • Postal/Telephone <u>At times</u> • Education • Medical services • Roads & parking • Environmental health	• Services for which usage and benefits are observable vs. • Services for which they are not, or which are mainly intended to benefit the most poor

Once the determination is made to charge for a publicly provided good, what should that price be based on? Table 7 lists five considerations of the purpose of the charge. Is it to recover costs, to efficiently reflect marginal costs, to recover operating costs only, to manage demand, or to subsidize desirable behavior?

Table 7: Basis for Setting the Price Level

Basis	Explanation
Cost recovery:	To signal scarcity and avoid deficits
MC vs AC:	Signal rational choices where fair/feasible
Include capital costs?	Yes, as these are real costs
Demand management:	To deter waste/overuse
Subsidies?	Only if use needs to be encouraged for the collective benefit (e.g., disease control), or where it is a basic human need and the poor cannot afford the full cost (e.g., sewage infrastructure).

Whether pricing will accomplish a given jurisdiction's objectives requires identifying those objectives clearly. Table 8 lays out the four of revenue adequacy, equity/fairness, administrative capacity, and political acceptability. All matter but which matters most or how these rank in importance will vary with the individual circumstances of place and time.

As an example, Shoup (2005) extensively reviews the case for charging for parking, if public, or for regulations that encourage the pricing of parking, if private. More often, parking is both freely provided and oversupplied by regulatory policy. He argues that while individual situations call for different approaches, so-called free parking can in reality involve substantial economic burdens to the community and individual land owners.

Table 8: Evaluation: Will pricing work?

Criterion	Explanation
Adequacy:	should aim to be responsive to population growth & inflation
Equity:	pricing is regressive — but lifeline rates & subsidies to connection fees can address this
Administrative capacity:	can be easy to administer, but requires certain technical capacity, will to impose sanctions for nonpayment, and political integrity
Political acceptability:	the role of prices is generally well understood but their level is a sensitive issue

Intergovernmental transfers

The final source of revenues in Table 2 are transfers from other levels of government. A very large share of local government revenues are from higher levels. This has two substantial effects on local decisions by providing more funds, and by encouraging or discouraging expenditures for some purposes over others. The size of these effects depends not only on the size of the transfer, but its form and whether it is conditional or unconditional.

Transfers come in two general forms: Revenue sharing or grants. The former are shared taxes, usually motivated by the relative ease of collecting taxes at higher levels of government. An example would be a state sales tax that is partially returned to the local jurisdiction generating it.[9] Alternatively, grants are simply awards of funds.

Both shared revenue and grants can be either conditional or unconditional. Unconditional grants have no strings attached, beyond whatever legal restrictions there are on public spending and accounting practices. These are simply additional funds for legitimate local purposes. Conditional transfers, on the other hand, are restricted to certain purposes and/or on a matching basis. They thus tend to have a substantial stimulative effect.

Tables 9 and 10 summarize the structure, advantages and disadvantages of each.

[9] Revenue sharing transfers can also be, and often are, at least somewhat equalizing in design. That is, they do not merely rebate revenues to their source but can also return more funds to poorer or otherwise deficient jurisdictions.

Table 9: Types and Properties of "Unconditional" Transfers

Revenue Sharing/ Shared Taxes	Grants
Allocated to each local authority based on some specified share of centrally collected revenues originating in that local authority. **Pros:** Returns locally generated revenues that would otherwise be difficult to collect. Usually the smallest administrative burden. Generally predictable and stable revenue source. **Cons:** Requires that the origin of each shared revenue source be documented. Allocates the largest shares to highest income areas. **Example:** 1% of the sales tax collected from Cambridge would be periodically rebated directly to the general fund of Cambridge, and so on for each local authority.	Allocated by ad hoc or by formula. The formula is usually either a flat grant per local authority, or based on measures of need and resources, or some combination. **Pros:** Redistributes centrally collected revenues according to differences in need and resources across local authorities. Can address different regional circumstances and equalization objectives. **Cons:** Data required for allocation formula must be current. Disbursement procedures somewhat more complicated that revenue sharing. **Example:** 10% of central government revenues allocated to local authorities -- 10% as a flat grant to each local authority and 90% on an equal per capita basis.

Table 10: Types and Properties of "Conditional" Transfers

Revenue Sharing/ Shared Taxes	Grants
Same as above and in addition conditioned on specified performance criteria (e.g., staffing levels, acceptable accounts, etc.) and/or restricted to particular purposes (e.g., road maintenance). **Pros:** Same as above but with additional incentives and/or requirements to enhance local authority spending and revenue performance. **Cons:** Same but additional monitoring and measurement burdens by center, and reporting burdens on local authorities. May excessively distort local spending choices. **Example:** 1% of the sales tax collected from Cambridge would be periodically rebated directly to Cambridge, earmarked for road maintenance expenses, and so on for each local authority.	Same as above and in addition subject to matching local contribution, conditioned on specified performance criteria (e.g., staffing levels, acceptable accounts, etc.) and/or restricted to particular purposes (e.g., road maintenance). **Pros:** Same as above but with additional incentives and/or requirements to enhance local authority spending and revenue performance. **Cons:** Same but additional monitoring and measurement burdens by center, and reporting burdens on local authorities. May excessively distort local spending choices. **Example:** 10% of central government revenues allocated to local authorities by a formula that rewards local revenue effort (e.g., % increase in rates collections). Another 5% of central revenues allocated for water projects, where need is demonstrated.

Debt

Borrowing is less a revenue source than an alternative way of scheduling long lasting expenditures. Local governments in the U.S. are only permitted to borrow, normally, for capital expenditures. That is, for projects and facilities that will benefit current and future residents. It is hard to tax or charge future residents now, before they become residents, so it is convenient to schedule those revenues for later. Debt is thus an important mechanism for forward looking planning.

Government borrowing at the local level has become much more complex over the past two or three decades. Where governments used to mainly issue general purpose bonds (to be repaid from general revenues) or simple revenue bonds (to be repaid from the project being financed), they now rely on literally dozens of different financial instruments (Crane and Green, 1989; Vogt, 2004). The underlying reasoning remains, however: Borrowing is reserved for capital projects, and repayment should correspond to the flow of benefits from those projects.

Revenue summary

Successful local governments finance a substantial portion of their expenditures from local sources — otherwise they are severely limited in their ability to plan for the future, and to spend responsibly. A "good" tax mix is a balance of benefit and ability-to-pay revenue types, a balance that depends on the local mix of chargeable services and incomes. "Bad" taxes inadvertently affect behavior and impose large administrative or political costs. Local taxes should also be predictable, stable, equitable, and allow for spending growth.

The Public Finance of Regulatory Goals & Means

A general pattern of decreased federal funding for municipal operations over the past few decades, and the labor intensive nature of many local services, have led to growing state and municipal fiscal stress nationwide. Municipal responses have ranged from service cutbacks, on the spending side, to increased use of debt (Crane and Green 1989) and impact and application fees aimed at getting development to "pay its own way". Planners have long incorporated fiscal impact analysis as either a formal or informal element of the development evaluation process (Wheaton 1959; Burchell and Listokin 1980), and both common sense and anecdotal evidence suggests that, if anything, this will continue as fiscal pressures rise.

While the public finances of local land regulatory actions have been included in the discussion above, this sections looks at two in more detail: The "fiscalization of land use" and "regulation for revenue."

Fiscalization of Land Use

In addition to fee structures aimed at cost-recovery, local governments have long made land-use planning decisions aimed at maximizing revenues and minimizing costs.

Economic development and other budget-conscious officials favor revenue-producing land uses, such as sales tax generating commercial/retail, while rejecting uses with apparently high costs and low revenues, such as multifamily housing. Cities also compete with one another over development projects based on expected budget impacts.

Together, these practices can distort land use planning and development decisions in many ways. Nevertheless, they appear to have dramatically accelerated over the past twenty years, especially in states subject to property tax limits (Misczynski, 1986). In California, the propensity to use fiscal zoning was arguably exacerbated after the property tax limitation Proposition 13 passed in 1978. That act fixed the typical property tax rate at near 1% of assessed value, and set assessed property value at the higher of (a) its 1978 market value plus a maximum of 2% appreciation per year, or (b) its last sales price since 1978 plus a maximum of 2% appreciation per year. (Since the early 1980s communities have also been permitted an additional property — or "Mello-Roos" — tax of up to 1% explicitly for the purpose of financing infrastructure associated with new land developments.)

Proposition 13 had three significant effects on California's local governments that promoted the fiscalization of land use planning:

- It changed the relationship between property-tax revenues and sales-tax revenues, making retail stores more attractive to local governments and other land uses--especially housing--less attractive.

- It placed central control for distribution of local tax revenue with the Governor and the Legislature, thus reducing city and county budget autonomy and their ability to manage both sides of the land-use/budget equation.

- It made it more difficult for local governments to raise funds for community infrastructure, whether from taxpayers at large or from property owners who benefit from such improvements.

Proposition 13 thus decreased the relative importance of the property tax and increased the relative importance of the sales tax as local revenue sources. (A share of locally generated sales tax collections is rebated by the state back to that jurisdiction.) That said, California communities do not have much *direct* control over either the property or sales tax rate.[10] Their influence over the fiscal environment is, rather, mainly indirect via their control over the revenue generating ability of alternative land uses.

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[10] Municipalities can use other tax instruments. There is the local option at the county level to raise the sales tax rate, but in addition to the limited influence that individual municipalities have over the county tax structure, voter support for such increases has lately been limited to funds earmarked for transportation infrastructure. Some localities use special taxes such as business license fees and hotel occupancy taxes, but sales and property taxes are still large revenue sources for most municipalities.

The broader trends are by no means unique to California however. Many communities that do want to accept housing or other land uses that provide relatively little tax revenue will do so only if the budget is balanced through the imposition of large up-front development fees, as discussed below. While such fees do permit needed community infrastructure to be built, they will also drive up the cost of housing. Furthermore, fee revenues fluctuate substantially from year to year depending on the amount of construction activity, and therefore are not a stable funding source.

Sales-tax revenue is one of the few sources of funds over which local governments perceive that they have any control. In California, for example, 1% of the 7.25% state sales tax is returned to local governments. Thus, for every $100 in retail sales, $1 is returned to the jurisdiction where the transaction took place, no matter where the people actually live. Interjurisdictional competition for and accommodation of auto malls and big-box retailers, such as Wal-Mart and Costco, may be the most visible example of how planning can deliver cash-cows.

Regulation for revenue

The phrase regulation for revenue refers to the recent but now widespread practice of imposing large impact fees, special assessments, and exactions on new residential and commercial real-estate development (Nelson, 1988). Altshuler and Gómez-Ibáñez (1993) observe that only about 10 percent of American localities imposed exactions before 1960, a fraction that increased to 90 percent by the mid-1980s. They further comment that designing regulatory systems explicitly to produce revenue, as opposed to a traditional "compelling state interest" such as health and safety, represents “a dramatic power shift...from the owners of property to government officials.”

The use of impact fees and exactions soared in the 1980s, ostensibly as a way to get around anti-tax sentiment and voter-imposed tax limits such as California’s Proposition 13 and Massachusetts's Proposition 2 1/2. The chief justification for hefty increases in development fees is the contention that “growth doesn’t pay for itself” through the incremental value added to the tax base, though the few studies examining this question are far from clear. Impact fees “do not show up on anyone's tax bill,” Altshuler and Gómez-Ibáñez write, “and while they are likely to drive up developer prices they remain imperceptible even to purchasers as a distinct cost item.”

And yet linkage assessments go beyond simply paying for growth-related public works such as roads and sewers, to include fees for social infrastructure needs such as child care, mass transit, and affordable housing. The argument is that new commercial development stimulates demand for transit, housing, child care, among other social services. San Francisco, for example, imposed a mass transit fee of up to $5.00 a square foot on commercial development to help pay the massive tab for BART (Bay Area Rapid Transit) and other transit projects. Other cities have successfully imposed fees for child care and affordable housing.

For all its flaws, property taxes are relatively stable as these revenues generally do not move dramatically up or down in any given year. By contrast, retail sales can rise or fall sharply during an economic boom or a recession and development fee revenue can fall from millions in a building boom to almost nothing in a real estate bust. Reliance on these tax sources, which fiscalized land-use policies usually seek to attract, makes stable,

long-term budgeting that much more difficult for local governments to achieve. Dramatic swings between layoffs and new hires tend to result, possibly helping to erode public confidence in local officials.

Local government finance and land-use planning will always be bound up with one another. The way land is used inevitably shapes the revenue potential of cities and counties and the cost requirements with which they must contend.

An Example: Transit Oriented Development

A lively and diverse literature continues to investigate the potential for causal links between rail transit and land use planning. This work has traditionally concerned the impacts of transit on land use and urban form but a number of recent studies, encouraged in part by policy initiatives such as recent federal transportation reauthorizations, also consider the potential for using land use planning to influence transit demand (an extensive review is found in Cervero and Seskin 1995). Among these, so-called transit-oriented development (TOD) research has been particularly visible as an advocate of more medium and high density residential development near commuter rail stations (Bernick and Cervero, 1996). The goal is to both increase rail ridership, thus improving rail transit's viability, and reduce traffic congestion. These proposals currently hold great sway in urban design debates and, somewhat more concretely, they appear to have influenced several major cities to incorporate residential development into their transit-oriented land use plans.

By way of background, the TOD literature follows on, and in some ways is a response to, a large body of research on the land use impacts of transportation. By the late 1970s, a number of studies had examined the land use impacts of transportation. Those studies typically found that transportation improvements often created relatively small land use responses (Meyer and Gómez-Ibáñez, 1981).

For many years, this was the experience with the Bay Area Rapid Transit (BART) system in San Francisco. When it was opened in the early 1970s, planners assumed that the new rail transit stations would become centers for economic development or (more often) redevelopment. The presence of the heavy rail transit system would encourage medium and high density development, and presumably some of that development would be residential units offering easy walking access to a BART station.

By the late 1980s, however, it was clear that redevelopment near many BART stations had proceeded at a slower pace than expected. Planners began to conclude that the land market, if left to its own devices, would not fully exploit the development opportunities near stations. Some practitioners and scholars argued that government would have to intervene. Suggested policies included rezoning land near stations for residential uses, offering density bonuses or subsidies, or otherwise facilitating development (especially residential development) near rail transit. This policy activity meshed with academic thought that advocated a return to more dense pedestrian and transit-oriented communities and the TOD idea was born.

Studies of the barriers facing TOD have focused on the behavior of private land markets and individual commuters (Cervero, Bernick and Gilbert, 1994), but recent research suggests that local institutional obstacles to TOD may be a greater problem than is generally understood. In an extensive review of land use near over 200 existing and proposed rail stations in Southern California, Boarnet and Crane (1997, 2001) found little

evidence of residential TOD in local zoning codes. The overwhelming trend was one of commercial and industrial zoning in station areas, a pattern that held across community and commuter rail system characteristics.

One explanation is that while transit-based housing is possibly consistent with regional ridership goals, as the TOD literature tends to argue, it may well be at odds with local development goals. If conflicts between municipal and regional goals exist, it would seem useful for transit planning purposes to understand the motives of all the governments that have land use jurisdiction near rail transit lines.

As an example of how planning behaviors are influence by public finances, Boarnet and Crane (1998) explored the fiscal motives leading communities to resist residential development near commuter rail stations. One explanation for the limited implementation of TOD is that localities aim, by way of either long term planning strategies or incremental zoning decisions, to use rail transit stations as a means to enhance their fiscal position. To the extent that rail transit stations are perceived as opportunities to focus new development or redevelopment, a municipality might choose to emphasize land uses that have the most favorable impact on its tax base. That is, local governments face significant behavioral incentives, often neglected in residential TOD strategies, regarding their economic and fiscal self-interest.

Do localities view rail transit stations with fiscal incentives in mind? It is easy to see why they might. Rail transit stations offer connections to the rest of the regional economy, potentially providing an opportunity to focus development (in the case of stations near open land) or enhance existing land uses (for stations sited in developed areas). Rail transit might thus enhance the tax revenue generating capability of existing or future commercial development by providing both access for customers and a recognizable landmark that can raise the visibility of nearby development.

To the extent that cities value commercial development, they might thus prefer that rail transit be sited near existing commercial centers and that commercial land uses near rail stations be expanded. Two points are thus important. First, the fiscal motive to seek commercial land uses might be especially strong near rail transit stations. Second, localities have two ways to act on this motive. They can either encourage commercial development near existing stations or influence regional authorities to site stations near existing commercial developments.

Summary

Public finance is in part a behavioral story of why governments do what they do, or rather what they should do, and in part the pros and cons of alternative ways in which these activities are paid for.

The concepts summarized here concern a bit of both. On the one hand, governments – and thus planners – largely operate in order to provide public goods and to correct externalities, both examples of where private, competitive markets fail to provide for what we all generally consider the "public interest." On the other hand, the ways in which governments finance their activities can be easily listed and described, as we do, but the merits of those options are nuanced, as discussed.

Two examples of trends in how finance drives land use planning are the fiscalization of land use, or land planning toward fiscal ends, and regulation for revenue, or planning for cost-recovery. Whether these trends are good or bad is hard to say, but we can agree how the underlying public finances both explain these behaviors and their impacts on our communities.

More generally, many of these new types of fiscally motivated planning behaviors have not been studied in great detail. While this paper uses transit-oriented development as one example where the fiscal influence on land-use planning has been investigated, it certainly is not the only opportunity. Earlier literatures studied incentives for fiscal zoning and attempts to increase the local tax base, but those typically focused on the property tax (e.g., Mills and Oates 1975). Fiscal competition now is over commercial uses, and the ramification of these new fiscal pressures are not fully understood. Our main purpose is to aid that kind of effort.

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