

Local Taxes and Local Expenditures: Strengthening the Wicksellian Connection

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1. Introduction

“...Wicksell (1896) and Lindahl (1919) ... recognized that if genuine links or connections were to emerge between revenue and expenditure decisions and if true demand functions were as a result to be revealed, the public (collective) provision of goods and services would be efficient.... I will henceforth call this connection the Wicksellian Connection (Breton, 1996, 3).

Common sense suggests that there should be a strong and logical connection between the two sides of the budget. If an average citizen in any country is asked what he or she thinks about the desirability of a particular expenditure increase, the answer sometimes depends on how the respondent thinks the increase is (or will be) financed. Similarly, while people do not like tax increases, again their attitudes seem to depend at least to some extent on what they think will be financed. People are right. Revenues and expenditure are inextricably linked. The central problem of public economics is what governments should do, but what governments do is inseparably entangled with the question of how what they do is financed. Formal economic analysis of public finance often assumes that there is little or no connection between what happens on one side of the budget and what happens on the other side. However, if one aim of policy is to ensure that the public sector operates efficiently, it is important to establish as clear a linkage between expenditure and revenue decisions as possible – to strengthen what Breton (1996) calls the Wicksellian Connection.

Since concern for efficiency in the allocation of resources in the sense of maximizing consumer welfare is central to what Harberger (1971, 785) defined as “... the package of expertise that distinguishes the professional economist from the rest of humanity” it is not surprising that many economists, if few others, have long recognized that strengthening the Wicksellian connection in this sense is essential to improving the efficiency of public sector outcomes. In a paper written to celebrate the centennial of Wicksell’s original formulation of this idea, for example, Richard Musgrave (2000, 101), one of the doyens of modern public finance, placed his own work squarely in the Wicksellian tradition and concluded that in order to provide “...public goods in an efficient and also just manner...in the absence of an omniscient referee ... a mechanism for preference revelation [is needed with] tax and expenditure decisions...joined as they should be,

rather than pursued as independent parts of the budget.” It is thus not surprising that the essential aim of the literature on fiscal federalism originating from Musgrave and others has been characterized as “...to improve the responsiveness and accountability of politicians and bureaucrats and to ensure closer correspondence of the basket of publicly provided goods and services with the preferences of beneficiaries and taxpayers in the various sub-central jurisdictions [by] promoting the coincidence between the three circles of budgetary policy: those who decide, those who benefit, and those who pay (Bird et al. 2003, 351).”¹

If the benefit principle in this sense of a link between taxation and spending – the Wicksellian Connection – is central to achieving the aims of fiscal decentralization, charging for public services and earmarking revenues to the services provided should be equally central to a sound local finance system. In such a system, expenditure responsibilities would be matched with revenue resources, revenue capacities matched with political accountability, and benefit areas matched with financing areas. Whenever possible, services provided by the public sector should be (so to speak) sold to those who receive them and the revenues yielded by such sales should be sufficient to pay for the cost of providing the service. At its extreme, this approach treats local governments as essentially ‘firms’ producing and selling services to their customers. In a sense, Tiebout (1956) started this line of thinking by treating localities as competing firms. However, his local governments sold only pure public services, enjoyed equally by all local residents and only by them, and operated in an extremely artificial institutional setting (Bewley 1981). In the real world local governments operate in many different institutional settings, offer some services that are essentially ‘private’ in nature and others that ‘spill over’ local boundaries to varying degrees, and often have little discretion with respect to either the services they offer or how they pay for them, with many in the end being paid for neither by local residents nor the (overlapping but not identical) group of beneficiaries.

Although, few countries seem to have paid much attention to the importance of the Wicksellian Connection for efficient and effective fiscal decentralization, some elements of the benefit approach are visible in many countries. Indeed, since most services for which local governments are responsible are assigned either constitutionally or by central (or provincial) laws, all local government finance from all sources is in a sense earmarked to those responsibilities. Sometimes certain intergovernmental fiscal transfers to local governments are specifically earmarked to specific local expenditure functions, although both the efficacy and the efficiency of such earmarking may often be questioned (Kim, Lotz and Mau 2010).² Oddly, however, relatively little attention appears to have been paid to what would seem to be the clearest implication of the

¹This is close to the ‘fiscal equivalence’ principle of Olson (1969).

²Interestingly, none of the papers in the volume cited appear to recognize that since “conditional grants can be equivalent to a centralization of constitutional powers” equalization transfers intended to place local governments on a more equal ‘competitive’ footing in providing local public goods must be unconditional in nature (Breton 1996, 258). Although the relation between transfers and local taxes is not further discussed here, this paper assumes implicitly that at the margin all local governments are in essentially equal positions when it comes to making purely local fiscal decisions (Bird and Smart 2002).

benefit perspective for local revenue policy, namely, that local governments should charge for services provided whenever possible, earmark the revenues received to the services for which they are paid, and – barring ‘externality-related’ transfers – spend only those amounts on those services.

In contrast to this approach, most discussion of local revenue policy appears to view it sort of a truncated version of national revenue policy – that is, a matter of balancing off equity against efficiency within administrative constraints independently of the spending side of the budget. There are, however, some exceptions:

- For example, a standard recommendation in the literature on fiscal federalism is that some local expenditure should be financed through user charges (Sjoquist and Stoycheva 2012).
- Moreover, one rationale sometimes offered in support of local property taxation is as a sort of surrogate user charge through which residents who benefit from local services pay for those services.³
- At the same time, it has been argued that non-residential property tax rates should be lower than residential because they use fewer municipal services (Bird, Slack, and Tassonyi, 2012).
- Occasionally, benefit arguments have been used to support payroll taxes or sales taxes as ways of getting non-residents (commuters or visitors) to pay for at least some of the benefits they received from local services.
- The other side of this argument is that localities should be constrained from ‘exporting’ taxes to non-residents when the proceeds are used to finance services for residents (Bird 1993).
- A similarly ‘split’ view of appropriate financing underlies the standard Pigouvian argument for intergovernmental transfers to compensate for external benefits provided to others than local residents from locally-provided services.
- Finally, the benefit perspective again raises its head when it is argued that borrowing to finance long-term local investment is often both an efficient and an equitable way to share the costs of investment between present and future beneficiaries.

However, such disparate ideas are seldom packaged as a whole and considered seriously as in effect constituting the revenue side of an appropriate Wicksellian local finance system, let alone linked to the fundamental question about whether and how to ‘earmark’ specific revenues to specific expenditures.⁴ Indeed, earmarking seems to be almost as unpopular with experts in local finance as with budgeting experts at the national level.⁵

³ Although this approach is nicely developed in a seminal paper by Vickrey (1963) and discussed further in Netzer’s (1966) important treatise, it has seldom surfaced subsequently in the voluminous literature on property taxation.

⁴ Bird (2009) reviews standard ‘revenue assignment’ theory and some alternative approaches.

⁵ Bird and Jun (2006) discuss the pros and cons of earmarking and the many varieties found in practice.

Theory and practice thus seem to be far apart. In principle the optimal way to design a local tax system would seem to be, first, to determine the desired size and nature of local expenditures, and then to put in place that tax (and transfer) system that faces local decision-makers with incentives that will lead them to choose to finance precisely that package of expenditures. In reality decisions on the two sides of the local budget are usually made independently, often with relatively little local input, while both local expenditures and local taxes often being largely determined by central authorities. The result is that not only are local expenditures little influenced by local revenue policy but that accountability at the local level is often both confused and confusing.

This paper is a preliminary exploration into these tangled and dark waters. Section 2 sets the stage by briefly reviewing the extent to which local taxes and local revenues appear to be appropriately ‘connected’ (at the margin) in practice. Section 3 then considers several ways in which the Wicksellian connection between local services and revenues might be strengthened -- by changing the ‘package’ of local services, by altering the ‘package’ of local revenues, and by altering the way in which the two packages are tied together, although only the second point is discussed in any depth. Section 4 makes the discussion a bit more concrete by considering from this perspective the major local financing issue facing the province of Ontario, Canada, namely how to finance the regional public transit system in the Toronto metropolitan area. Section 5 concludes with a few reflections on why political economy considerations make it difficult to sell economic rationality as an important objective when it comes to local government finance, arguing that advances in technology may now make a more rational local finance system much more readily achievable than in Wicksell’s or even Musgrave’s time. However, it remains far from clear that people (or politicians) really want to face up to the economic realities of local finance.

2. Local Government Finance in the OECD

Rudyard Kipling once said with respect to the question of how to interpret Pashtun poetry that “There are nine-and-sixty ways of construing tribal lays, and every single one of them is right!” An economist attempting to interpret the structure of local finance in OECD countries may perhaps think that Kipling did not go far enough. Local finance systems seem to both right, in the sense that every country presumably has a system that has been accepted as right for it, and wrong, in the sense that none of the systems now in place appears to be right from an economic perspective. Although the structure of local finance within any particular country appears over time to be characterized more by inertia than by change,⁶ different countries finance their local governments in very different ways, as Table 1 shows. Local taxes account for less than 15 percent of local government revenues in some countries such as the United Kingdom but for

⁶ Compare the tables in this section to those for the 1980s in Bird and Slack (1991).

more than 60 percent in Austria. Given the apparent unpopularity of the property tax it is perhaps not surprising that in the two countries in Table 1 – the UK and Ireland -- that limit local government taxing authority to this tax alone, the local government sector is heavily dependent on transfers. Local government revenues in these two countries also represent a fairly small share of GDP compared to countries such as Denmark and Finland where local governments rely relatively more heavily on taxes. There does not appear to be a clear relationship overall, however, between the size of local government revenues and their composition.

<Table 1 near here>

Transfer dependence is marked in all countries, with transfers on average providing almost the same share of local revenues (44.6 percent) as taxes (34.2 percent) plus user fees (12.0 percent), and being more important than taxes in all but a few countries. Transfers (earmarked and non-earmarked combined) account for more than 50 percent of local government revenues in five of the 15 countries in Table 1 and over 70 percent in the UK, where local governments rely exclusively on property taxes. In contrast, with the sole exception of Finland, user fees provide less than 20 percent of local government revenues in each of the 15 countries in Table 1. Although such fees are levied in most countries for such locally-provided public services as transportation, water, and waste collection but less so for other services (Blöchliger 2013), there appears to be little or no relation between the relative importance of such services and the degree of fee dependence.⁷

Table 2 provides more detailed information on local taxes for a greater number of countries. Local taxes account for more than 25 percent of total taxes (central, regional, and local governments) in Denmark, Iceland, Japan and Sweden but less than 5 percent in nine of the 34 countries and less than 10 percent in another nine countries. As a percent of GDP, local taxes range from a high of over 10 percent in three of the Nordic countries (Denmark, Finland, and Sweden) to less than 1 percent in six countries (Australia, Czech Republic, Greece, Ireland, Mexico, and Slovak Republic). In terms of the types of taxes, income taxes are the largest source of local tax revenue in 14 countries, including the Nordic countries. Indeed, in 12 out of the 14 income tax countries, such taxes account for more than 50 percent of local taxes, and in ten of them local taxes account for more than 10 percent of total general government taxes. Goods and services taxes are the most important local tax source in six countries, account for almost 50 percent or more of local tax revenues in six countries (not the same six) – 80 percent in Hungary -- and provide over 10 percent of local taxes in 16 countries. Although local governments in all 34 countries levy property taxes, such taxes account for more than 10 percent of local taxes in only 27 countries, and are the most important local tax source only in 12 countries. On the other hand, the property tax accounts for over 90 percent of local taxes in

⁷ The simple correlation between the user fee share of total revenues and the share of expenditures on economic affairs and environmental protection in total expenditures is .066.

Canada, Israel, and New Zealand and is the only local tax levied in Australia, Ireland, and the UK. The only countries with a balanced local revenue structure in the sense that it is not dominated by just one tax (i.e. no tax accounts for 50 percent or more of total taxes) are Italy, Japan, Korea, Portugal, and Spain.

<Table 2 near here>

Three conclusions emerge from Tables 1 and 2. First, countries have considerable discretion in deciding how large a role that local governments play, the extent to which local activities are financed from local revenues, the types of taxes which local governments can levy, and the degree of autonomy they have in determining tax bases and tax rates. Second, countries influenced by British local government traditions – a group that includes Israel -- are those that rely most heavily on property taxes and least heavily on income taxes. Third, in countries where local governments rely most heavily on property taxes, local taxes do not account for more than 10 percent of total taxes. Only where local governments have access to income and sales taxes do local taxes ever exceed 10 percent of total taxes.⁸ At the extreme, in Sweden where local governments rely almost exclusively on income taxes, local taxes represent over 35 percent of total taxes.

To some extent causation runs the other way since countries with larger local government sectors are those that assign local governments more expenditure responsibilities. As Table 3 shows, although the average size of local government expenditures is about 13 percent, the range is great -- from less than 3 percent of GDP in Greece to over 37 percent in Denmark. In eleven countries, the local government sector is less than 10 percent in GDP, in twelve countries, it is between 10 and 20 percent, and only in three Nordic countries, all of which rely heavily on local governments to deliver health, education and social protection services and rely mainly on income taxes for local financing, does the local government sector account for more than 20 percent of GDP. Local taxes finance less than 10 percent of local expenditures in the Czech Republic and Netherlands but more than half of local expenditures in Sweden, Iceland, Switzerland and Austria.

<Table 3 near here>

As Table 4 shows, in most (but not all) countries, local governments are generally responsible for public order and safety (fire and police protection), local transit and roads (included under economic affairs in Table 4), environmental protection (including waste and wastewater), housing and community services (including water supply and street lighting), recreation and culture, education, and social protection. There is considerable variation, however, in the extent to which local governments in different countries are responsible for these services. For example, education represents more than 20 percent of total local expenditures in 15 of the 26 countries

⁸ One notable exception is Luxembourg, where income taxes are the main source of local government revenue but local taxes are a small portion of total taxes just as local expenditures relative to GDP are relatively small (Table 3).

but less than 10 percent in three countries (Greece, Italy, and Spain). Similarly, although social protection represents more than 20 percent of local expenditures in six countries it accounts for less than 10 percent in seven countries. Local expenditures on health, education and social protection account for an astounding 78.6 percent of all general government expenditures in Denmark and 52.9 percent in Sweden, although the local sector is somewhat less important in Finland (43.0 percent) and Norway (32.3 percent).

<Table 4 near here>

Complex, varied and incomplete as the picture sketched in this section is, one conclusion that emerges clearly is that there is little evidence that much attention has been paid to the Wicksellian Connection in designing and implementing local government finance systems in the OECD. Although the issue is not explored in detail here, the very limited degree of autonomy that local governments have even over ‘local’ taxes in most OECD countries (Blöchliger and Rabesona 2009) reinforces this conclusion.⁹ On the other hand, as underlined by the literature on ‘second-generation’ fiscal federalism (Oates 2005), what is most important in linking local expenditures and revenues is not what happens to totals such as those reported above but rather whether the relevant *marginal* benefits and costs of particular local taxing and spending decisions are taken into account by those making the decisions. Putting aside the considerable complexities involved in applying this principle to the important transfer-funded component of local expenditures,¹⁰ the next section considers some aspects of what a more ‘Wicksellian’ local government finance structure than that now found in these countries might be established.

3. Strengthening the Wicksellian Connection

A conjuring trick is generally regarded by magicians as consisting of an effect and a method....The method is the secret behind the effect and allows the effect to take place (Lamont and Wiseman 1999).

The desired effect is an efficient local public sector. The method is to establish the Wicksellian Connection to the extent possible. However, as we discuss in the concluding section, the real conjuring trick is to how persuade people that the effect is sufficiently attractive to make the method acceptable.

⁹ As Ivanaya and Shah (2013) note, almost no local governments are totally autonomous in the sense that their decisions cannot be arbitrarily overridden by higher-level governments, although the Scandinavian countries, Japan, Korea, and several federal countries (Austria, Brazil, Switzerland, Belgium, Canada, the United States and Argentina) rank in the top 20 (out of 182 countries) in terms of this criterion.

¹⁰ As indicated in some of the papers in Kim, Lotz and Maus (2011), this question is complex because it requires establishing an appropriate incentive structure not only at both levels of government (donor and recipient) but also for several different types of transfers (which are often combined in various ways) such as those intended primarily for interpersonal equalization, those intended for interjurisdictional equalization, those intended to offset externalities, and those intended to influence local expenditures for other reasons.

The basic conditions for a Wicksellian local government system are simple:

- First, local governments should be in control of an appropriate range of expenditure responsibilities – essentially, providing local services to local residents and businesses. The obscurities and contradictions about who is to do what need to be cleared away, and the tasks of local governments in serving local residents -- as opposed, for example, to their role as agents of higher-level governments in delivering services financed by those governments -- made clear to all.
- Secondly, local governments should be allowed to exercise these responsibilities freely both in the sense that they (potentially) have access to sufficient resources to do so at an acceptable level and that they are not subject to detailed controls over what they do and how they do it, though of course subject to full administrative and political accountability.
- Thirdly, in true Wicksellian fashion, local governments are concerned only with financing and delivering local services as efficiently and effectively as possible: that is, they are not directly concerned with redistributive policy.

In practice, none of these conditions is currently satisfied in any country. To take the last condition first, if local governments are democratically responsive bodies they are inevitably in the business of redistribution to some extent (although their attempts to redistribute may be vitiated by the openness of their economies). We assume here that any redistributive concerns are adequately dealt with by the national tax-transfer system (whether or not some of the pains and pleasures meted out by that system happen to be delivered by local agents). Local governments as local governments are primarily in the business of providing local services, not redistributing income. Similarly, for the most part we ignore such problems as attempts by higher-level governments to bend local government decisions on local services to conform more closely with their own desires as well as the inevitable lack of clarity as to who is responsible for what when it comes to such complex (and multi-level) products as the delivery of health or education services and the impossibility of measuring and offsetting all potentially relevant spillovers.

What Local Governments (Should) Do

Finance follows function, as Bahl (2002) puts it: one must know exactly what local governments are supposed to do before considering how best to finance them. The basic requirement for an efficient and effective Wicksellian local government is what may be called the "matching principle." Matching has several dimensions. One is 'horizontal' matching in the sense of matching as closely as possible those who benefit with those who pay and with those to whom the relevant political decision makers are politically accountable. How to do this is the principal

concern of this section. Another dimension is ‘vertical’ matching: when local governments are really acting as agents of higher-level governments in providing services, the primary financing responsibility should also be with those governments, as in the standard discussion of Pigouvian transfers.¹¹ Important as this aspect is in many countries, it is not discussed further here.

The basic rule of efficient expenditure assignment is sometimes often taken to be to assign each function to the lowest level of government consistent with its efficient performance. So long as there are local variations in tastes and costs there are efficiency gains from carrying out public sector activities in as decentralized a fashion as possible (Oates 1972). Indeed, from this perspective, the only services that should be provided centrally are those for which there are no differences in demands in different localities, there are substantial “spillovers” between jurisdictions that cannot be handled in some other way (by contracting, by redrawing boundaries, or by grant design), or the additional costs of local administration are sufficiently higher to outweigh its advantages. In practice, however, although there are some functions (such as street maintenance) that are local everywhere and although the allocation of functions to local governments varies considerably from country to country, few, if any, countries come close to this in reality.

Nonetheless, the benefit model of local finance, in which local governments provide services for the last (marginal) units of which recipients are willing to pay a price or charge that is just equal to the benefit they receive, is most conducive to effective, efficient, and accountable local government.¹² However, it can be difficult to design an appropriate pricing policy for some local public services. Even if such prices can be designed, implementing them is seldom politically appealing especially when user charge financing means that people are asked to pay for services which in the past were supplied for free.

Even when pricing is not possible or desirable (e.g. because it would simply be too costly to administer) local expenditures and revenues should be linked through matching service benefit areas to the spatial dimension of the financing sources. Taxes levied by local governments to finance local services should thus fall exclusively on local residents or on non-residents who benefit from such services. Moreover, such services should be financed solely by such taxes and charges unless there is a clear public purpose rationale for financing part or all of the cost by

¹¹Transfers paying for such services, like the equalization transfers intended to place different jurisdictions in circumstances to be able to respond equally to incentives, should be carefully designed to ensure that, *at the margin*, the costs and benefits of local fiscal decisions are borne locally, while taking adequately into account such interjurisdictional spillovers as are deemed relevant. Consistent application of these rules with respect to both local revenues and transfers will impose a hard budget constraint on local decision-makers and hence make them fully accountable for the consequences of their decisions. Neither local decision-makers nor, in most instances, their constituents are usually happy to be subject to such a budget constraint since it is always easier and more pleasant to spend, as it were, ‘other people’s money’ in an unaccountable (and hence inevitably somewhat irresponsible) fashion.

¹²The results are not only allocatively efficient; they may also be considered equitable in the sense that no one pays less (or more) than he or she would be willing to pay in a free market.

transfers from higher levels of government. For accountability, it is critical that full information should be provided to local citizens about exactly who pays for exactly what and why.¹³

The first step in setting up such a system is to establish clear lines of responsibility and accountability, as noted above. However, clarity of assignment in terms of specifying exactly what services each governmental agency is responsible for delivering is only part of the story. Clarity must be matched by accountability, in terms of both political democracy and transparency of operation, as well as by authority in terms of both the ability to manage expenditures and to determine (within limits) revenues.

Often, full clarity in expenditure assignment may not be fully attainable, for example, because the level and type of services provided are closely related to services provided by other governments. This problem arises even with respect to such mundane issues as the provision of local roads that are networked with other (provincial, national) roads as well as transit and water and other environmental issues that may have strong regional linkages. Even when a particular service is exclusively assigned to the local level much of the relevant policy and regulatory framework may be established at higher levels of government, which may, for example, impose higher standards of service provision than local citizens want or are willing to pay for. Clarity is easier to ask for than to deliver but if public service delivery is to be efficient, it must be as clear as possible to all exactly who is responsible for doing precisely what.

Since even the best-designed decentralized public sector is unlikely to be a perfectly competitive market structure, outcomes are unlikely ever to be optimal in the technical economic sense. Nonetheless, it is seldom necessary or advisable to revert to centralized alternative. It is usually better to set up the local finance system with as hard budget constraints as possible for all relevant decision-makers and to make the operation of the system as transparent as possible.¹⁴ As Oates (1999) observes, relatively uncoordinated decentralized public sector suppliers striving to meet clearly specified and publicly accountable mandates are more likely to provide new and better ways of providing public services than more centralized alternatives.

¹³ Where other governments pay, local governments should also of course be accountable to those governments with respect to how they spend those funds.

¹⁴ A principal argument for decentralization is that coordination (or cartelization, or monopoly, as it might perhaps also be labelled) is less likely to deliver the goods - or, more precisely, to deliver the right goods in the right quantities to the right people – than will more competitive suppliers responding to price signals. What may at first glance appear to be undesirable duplication or overlapping of functions may actually be useful redundancy in a complex system facing changing conditions (Landau, 1969). On the other hand, duplication and confusion may sometimes lead to waste so better intergovernmental coordination is needed. The solution to such problems is to design intergovernmental fiscal relations in such a way as to minimize real coordination problems as well as to continue working at the difficult and perhaps never-ending task of establishing effective and preferably cooperative coordinating institutions.

Charging for Local Services

Financing local services through appropriately designed and implemented user fees provides not only the funds to supply such services but also information on which services should be provided, in what quantity and quality, and to whom. Better-designed and implemented user charges, unlike taxes, not only provide funds but also improve the efficiency with which scarce public resources give people more of what they want and are willing to pay for instead of what someone else decides they should have. The 'own source' revenue side of the Wicksellian connection is strongest for prices and weakest for general taxes.

The first rule of sensible local finance should thus be: "Wherever possible, charge." The main economic rationale for better pricing of local public services is not to produce revenue but to promote economic efficiency. When consumers are not explicitly charged for consuming a service, the implied value they attach to the last unit they use is approximately zero. When no charge is imposed for a service more of it will be consumed than people would be willing to pay if faced with the real costs of providing the service. Under-pricing -- the free (or subsidized) provision of services – results in over-consumption and all too often leads to subsequent ill-advised investment in more of the same. For example, the crowding resulting from the provision of subsidized roads leads to political pressure for still more roads. This is the "black hole" of local government finance: something goes in -- the resources used in building more and more roads -- but nothing of equal value to society comes out. Good user charges can avoid such waste.

Local governments already charge fees and prices for many services, but the level and structure of charging usually leaves much to be desired. Water rates, for example, are sometimes fixed charges independent of the volume of water consumed. Since the marginal cost of additional consumption is zero, the result is over-consumption of water and, sometimes, over-investment in water capacity. Even when water consumption is metered, if declining block rates are used, prices may be less than marginal cost for large water consumers thus favouring those with large lawns and backyard swimming pools. The fact that sewer charges are usually pro-rated on the amount of the water bill only compounds such pricing errors. The "postage stamp pricing" approach (uniform everywhere) often taken in setting public prices almost never makes economic sense. Both distance from the source of supply and the time of use should be taken into account in setting charges – as should, of course, the administrative and enforcement costs of any pricing system.

Determining the proper domain and design of user charges can be challenging. The economically efficient price for any good or service is that which would be charged in a perfectly competitive market, that is, one in which there are many buyers and many sellers, all of whom have full information not only about the price and cost of the item in question but also about all

possible substitute and complementary products.¹⁵ Although these conditions seldom exist we allow private markets to distribute such essentials of life as food and shelter for the most part. Such problems are taken more seriously in the public sector, however, in part because the fundamental rationale for many public sector activities is that some or all of the conditions required to achieve market efficiency are violated: publicness (joint consumption) matters; excludability is not feasible; scale and sunk cost factors result in monopoly provision; non-priced externalities are significant; distributional concerns are important. Such problems do not preclude charging for public services but they do underline that care is needed in designing appropriate user charges. It is important not only to impose user charges where appropriate but also to impose the right charges.

It can be difficult to know what charges are right. Defining costs properly is not simple with respect to many public sector activities. The costs relevant to marginal-cost pricing are not those with which public sector managers, even those operating activities already structured as cost centres, are familiar. The common accounting notion of cost refers to identifiable monetary outlays incurred in the process of carrying out a particular activity such as wages, rent, utilities, transportation, and supplies. But accounting costs are not the same as economic costs. The fundamental economic concept of cost is opportunity cost -- the value of the benefits that could have been obtained had the inputs been used instead for some alternative purpose. From this perspective, the cost of, say, a park is not the tangible construction and operation costs recorded in financial accounts but the (highest) value that the land could have realized had it been used for some other purpose, such as logging or residential development. Estimation of opportunity costs is seldom easy. Determining the right marginal cost of providing another unit of a particular service such as widening a street requires the identification of all the additional costs arising from this incremental expansion. Congestion gives rise to social costs that may be reduced by such an investment but converting such costs into monetary values is not simple. Even when relevant market costs -- for example, the value of land used for a park -- are available, they are not always good approximations to social marginal cost prices.

An especially tricky issue is how to treat fixed costs (investment costs). To ensure the efficient allocation of resources, short-run marginal cost (SRMC) prices should be imposed to ensure the efficient use of existing facilities. However, this presumes that the size of the facility is optimal to begin with, an assumption unlikely to be valid given the way public sector investment decisions have traditionally been made. Moreover, for SRMC pricing to be efficient it must be altered as usage changes. When usage increases so should prices to reflect increasing congestion costs. Raising prices when service levels deteriorate is seldom acceptable. It is easier to wait until a bridge becomes unusable (or even falls down) and then seek the funds to rebuild it than to

¹⁵ This assumes that prices are adjusted to reflect all external costs and benefits and that – as Wicksell (1896) emphasized – a satisfactorily “just” initial distribution exists.

raise the funds needed for a new bridge by raising tolls on an ever-more congested (and unsafe) old one.

The alternative approach of including fixed (replacement) costs in setting prices in the first place --- using long run marginal costs (LRMC) as the basis for setting charges – leads to underutilized facilities and deprives managers of the demand information arising from reactions to SRMC prices. When investments in infrastructure have decreasing average costs, marginal cost pricing will result in financial deficits. To avoid this outcome (and also because they are easier to calculate especially if only financial costs are considered as is usually the case) prices are often set at average costs rather than marginal costs, which again results in inefficient utilization levels (unless unit costs are constant and marginal and average costs are equal).

Average incremental cost (AIC) pricing may sometimes be a useful compromise. Like marginal cost pricing this approach attempts to calculate the costs incurred as a result of an additional user but does so in a way designed not only to result in full cost-recovery (as in some versions of average cost pricing) but also to be computationally feasible. The idea is simply to allocate each element of costs, fixed and variable, financial and (to the extent measurable) social, to a particular incremental decision with respect to providing a service and then to assign to each additional user the incremental cost attributable, on average, to his or her usage. For example, when a vehicle enters a highway at a particular time, the costs attributable to this decision may be broken down into those arising from the addition of one vehicle at this time at this place (congestion), those attributable to the place (building the highway to its particular specifications), and those attributable to the trip (wear and tear on the road). An approximation to efficient pricing in this case might be some combination of a time penalty at peak times, appropriate charges for cost recovery for road use (wear and tear, which is exponentially related to vehicle axle-weight, as well as accidents, which are related to driving records), and perhaps some sort of access charge (vehicle license) to recover the fixed cost of highways. Such charges could be levied in part on vehicles (vehicle license), in part on vehicle use (gasoline taxes; tolls), and in part on drivers (drivers' licenses) with the appropriate user charge being calculated on the basis of available accounting information, supplemented by additional information as needed to take into account important social costs (noise, pollution, congestion). The resulting charges might be imposed on users as classes (e.g. trucks vs. cars) on an average basis. Such a system does not amount to marginal cost pricing in the strict sense but it may sometimes be as close as possible.

Other such compromises – variable block pricing, multi-part tariffs, etc. – may be applied with respect to different services.¹⁶ Such pragmatic approaches can also be used to develop systems of capital financing through development charges and the like in order to simulate quasi-marginal cost pricing and hence, among other good things, reduce urban sprawl (Slack 2002). For example, to cover capital (fixed) costs, a connection (or admission) fee might be charged.

¹⁶ For careful discussions of such approaches see e.g. Bos (1985) and Arnott (1994).

Such two-part pricing is generally more efficient than average cost pricing. But even such simple approximations to appropriate user charges often require information that is hard to obtain. Moreover, unless the gain from collecting such a charge exceeds the cost of imposing it, no charge should be levied. Every road could be a toll road. But the cost of collecting all those tolls -- both the administrative and compliance cost and the related social cost of added congestion -- means that such charging makes no sense. On the other hand, with modern technology it is now possible to establish time- and place-sensitive pricing for many public services and the cost of doing so is declining so rapidly that governments everywhere should be reconsidering their expanded pricing options in light of such developments.

If people pay for identifiable public services which they consume, and no one either receives a service without paying for it or pays without receiving a service, some might perceive the outcome to be fair. The rich do not, as a rule, pay more or less for bread or milk than the poor. Why should they pay more or less for a building permit or a fishing license? Nonetheless, the most common objection to proposals to expand or reform public sector pricing is that doing so would be unfair and regressive. Attempting to rectify fundamental distributional problems through inefficiently pricing scarce local resources is invariably a bad idea, however, resulting in little if any equity obtained at a high price in efficiency terms. If there are marked and undesired distributive effects from particular changes, they are better offset through such devices as offsetting increases in transfer payments or by recourse to such well-established technology as letting users access services through ‘smart cards’ with low-income users receiving an initial credit on their cards, thus simultaneously achieving universality (everyone has the same card) and targeting (those who need it have free or subsidized access).

Local Government Taxes

When the direct use made of services by specific individuals can be reasonably measured, such services should be priced. However, some services like local streets and water and sewerage connections are provided to specific locations such as particular lots or buildings. In some instances, such services might be paid for through charges that are related to relevant characteristics of properties (such as size of lot, frontage, or building height) or to property values. Other services (or components of services), such as arterial streets, utility lines, and public transit as well as major parks and recreation facilities may be ‘area-specific’ in the sense of being most accessible to those nearby. Since the value people attach to such services should be reflected in property values, a suitable form of financing may again be a value-based property tax. Still other services may provide city-wide or even region-wide benefits: again, such benefits should affect property values and an appropriate form of financing would appear to be a property tax although a case can also be made for income or sales tax financing.

Similar services are provided to businesses. However, since the cost of providing such services may differ widely from business to business, it is less clear that property-based taxation is the optimal form of financing business-related services, not least because their employees (who enjoy lunch in the local park), their customers (who benefit from locally-provided business inputs like streets), and their owners (who similarly benefit from cost-reducing local services) are not always residents of the locality.

In addition to providing such business-related services that may indirectly benefit non-residents, non-residents may benefit directly from locally provided services when they visit a locality as commuters (working but not living there), as tourists (presumably enjoying locally-provided amenities), or simply as visitors coming to shop, to dine, or for some form of entertainment or recreation. While some of the cost of providing services to non-residents may be recouped through user charges and taxes on business, a case may sometimes be made for additional specific forms of taxation on non-residents, although from the perspective of efficiency it is also important, as in the case of taxing business in general, to be sure that the taxes and charges imposed on such non-voting beneficiaries are not excessive.

Beyond user charges, two basic principles of assigning revenues to local governments may be suggested. First, "own-source" revenues should ideally be sufficient to enable at least the richest such governments to finance from their own resources all locally-provided services primarily benefiting local residents (Bird 1993). Second, to the extent possible, local revenues should be collected only from local residents, preferably in relation to the perceived benefits they receive from local services. Revenues from other sources (including local business activities) should similarly match the benefits they receive from local services.

A key question to ask about local revenues from the benefit perspective is thus the possibility of undesirable tax exporting – negative spillovers to non-residents such as (1) commuters (non-resident labour), (2) tourists and other visitors (non-resident consumers), (3) non-resident owners of local businesses (external capital), and (4) non-resident consumers of city exports (e.g. financial services). On the other hand, non-residents may gain from the joy of living next to the parks and theatres of the city (even if they don't use them – option demand) so another important question is the extent to which tax exporting matches possible offsetting benefits from local services.

With respect to the many local services which increase the value of particular locations there is obviously much to be said for taxing land and, more broadly, real property. With respect to other, less location-specific, services provided to local residents 'personal' taxes ranging from the much-despised UK 'community charge' of a few years ago to the personal income taxes that are the local revenue mainstay in Nordic countries might be suitable. Local sales taxation might also serve and would have the additional virtue of taxing visitors as well. Taxes on hotels and

entertainment would similarly catch this group, while a payroll tax would tax non-resident commuters.¹⁷

Budgeting and Accountability

Unless local governments have some significant degree of freedom to alter the level and composition of their revenues neither local autonomy or local accountability is meaningful. Local governments should not only have access to those revenue sources that they are best equipped to exploit --such as residential property taxes and user charges for local services -- but should be permitted and encouraged to exploit these sources. If intergovernmental fiscal structures are properly designed, this should not be a real problem (Bird and Smart 2002). Accountability works in part through electoral democracy. If local electors do not like what their local government does, or does not do, they can (try to) throw the rascals out at the next election. If they do not do so, local electors should, in a properly designed system, bear the consequences of their inaction. The freedom to make mistakes, and to bear the consequences of one's mistakes, is an important component of local autonomy in any country. If those who fail to collect local taxes or to spend revenues efficiently are bailed out by discretionary transfers, the rascals may not be thrown out but rather re-elected for their success in obtaining a larger share of other people's money. Countries that have an inappropriate intergovernmental fiscal structure are likely to have more problems in managing decentralization and less satisfactory policy outcomes.

Accountability requires not just good information about what local governments do and how they pay for it but also information that is sufficiently understandable to enable at least a critical margin of voters to understand what is really going on. Much has been said recently about the important connections between fiscal transparency, public participation, and accountability (Kagram, de Renzio, and Fung 2013). Most developed countries could learn from the example of Brazil which has done much to make public budgeting more transparent especially at the municipal level, with the clear result of increasing both popular participation in budgeting and accountability in fiscal decision making (Alves and Heller 2013).

An important issue requiring careful attention is the extent to which particular local government revenues should be earmarked to particular expenditures. The basic principle is simple: when charges and taxes are imposed on beneficiaries, whether as individuals or as members of specific groups (drivers, area residents, etc.), those revenues should be earmarked to those expenditures and those expenditures – abstracting from any externality-financing transfers – should be financed only from those revenues. There is no place for cross-subsidization in the Wicksellian

¹⁷ As Bird (2003) shows, the best way to tax local business from a benefit perspective may be through a so-called ‘business value tax’, based on the use of factors of production (labour, capital) by businesses. A payroll tax combined with some form of capital tax (more broadly based than real property taxation) would amount to much the same thing.

world. There is also no place for the common practice of ‘nominal’ earmarking in which some levy is rationalized as financing an activity but has no marginal effect on the level of that activity. While there are well-known limitations to the extent to which extensive earmarking is consistent with sound budgetary practice, the introduction of more explicit budgetary links between user charges and benefit taxes and the expenditures they are supposed to finance is an important component of a more Wicksellian local government finance system.¹⁸

A problem that is unlikely to be resolved by more sensible earmarking or more public awareness of local finances is the danger that local governments may attempt to extract revenues from sources for which they are not accountable, thus obviating the basic efficiency argument for their existence. The local public is more likely to applaud than to deplore moves in this direction. It is therefore important to limit local government access to taxes that fall mainly on nonresidents – such as most natural resource levies, corporate income taxes, pre-retail stage sales taxes and, to some extent, even nonresidential real property taxes.¹⁹ One way to deal with this problem may be to establish a uniform set of tax bases for local governments (perhaps different for different categories such as big cities, small towns, and rural areas), with a limited amount of rate flexibility being permitted in order to provide room for local effort while restraining unproductive competition and unwarranted exploitation. If inappropriate tax bases are assigned, wasteful competition and undesirable tax exporting are likely to result. In this as in other ways, the role of the central government in establishing the rules of the local fiscal game is central to the establishment of a more Wicksellian approach to local finance.

4. Financing Regional Public Transit in Ontario

One of the present authors once noted that with respect to transport “in no area...might the gains from more rational pricing be greater; in no area is economic thinking on pricing, and even the administrative feasibility of correct pricing more developed; yet it is probably safe to predict that the Canadian transport system will for the most part, continue to be as irrationally priced, and consequently overexpanded, in the future as in the past (Bird, 1976, 92).” Much the same could still be said today. Nonetheless, an important recent discussion on how to finance regional public transit in Ontario provides a useful example of the potential role of pricing and the Wicksellian Connection between spending and taxation in this area. The example is important for several reasons. First, it is a problem being currently dealt with in a variety of ways in several metropolitan regions in North America.²⁰ Secondly, the proposals under consideration

¹⁸ More detailed discussion of the pros and cons of earmarking may be found in Bird and Jun (2007).

¹⁹ As Bird, Slack and Tassonyi (2012) argue, an appropriate rule with respect to property taxes might be to require uniform taxation of non-residential properties.

²⁰ In the United States special ballot initiatives have been used to gain public support for tax increases in the form of dedicated revenue tools for specific transportation projects. For example, the Los Angeles County Metropolitan Transportation Authority (MTA) levied two general sales taxes dedicated to transit, each one-half of one percent,

demonstrate that people are aware not only of the linkage between revenue and expenditure but also to some extent of the potential effects of pricing. Thirdly, however, the Ontario case also suggests strongly that decisions on such matters – both on what is suggested and what is seriously considered -- continue to be made essentially on other grounds, even if it is not always clear exactly what those grounds are.²¹

The Greater Toronto and Hamilton Area (GTHA) contains about 7 million people -- half of the population of the Province of Ontario. The region encompasses two single-tier cities (Toronto and Hamilton) and four two-regional governments with 24 lower-tier cities, towns, and township. Each lower-tier and regional government is responsible for local public transit as well as most roads and highways within its boundaries. The provincial government is responsible for major highways (with the exception of one privately owned highway financed by vehicle usage fees). GO Transit is a regional public transit service for the GTHA; the Toronto Transit Commission (TTC) in the City of Toronto is the largest local transit system in the region.²² In 2006, in response to increasing concern about the growing negative impact of congestion on the economy, the environment, and the quality of life in the region, the provincial government created a regional transit agency (now known as Metrolinx) to improve the coordination and integration of all transportation modes in the region with the mandate of providing an integrated multi-modal transportation system for the GTHA.²³ Since Metrolinx is an entirely provincial agency governed by a presumably ‘expert’ board appointed by the provincial government, so no local politicians or officials are directly involved in its decisions. Moreover, it has no taxing or borrowing powers.

Two years later, Metrolinx (2008) produced a Draft Regional Transportation Plan (“the Big Move”) to address traffic congestion in the GTHA through a major programme of investments in transit and road infrastructure. The capital cost of implementing the plan was estimated to be \$50

that were approved by voters through special ballot initiatives in 1980 and 1990. In 2008, a further ballot initiative was supported by a majority of voters for another half-cent sales tax dedicated to fund the borrowing for specific new transportation investments (IMFG 2012). Similarly, ballot initiatives in 2000 and 2006 in Salt Lake City succeeded in imposing a quarter-cent sales tax dedicated to transit expansion (IMFG 2012). Earlier ballot initiatives in Salt Lake City were not successful, however.

²¹ We do not discuss here the principal problem in rationally funding and pricing public transit -- the continuing and economically irrational subsidization of road use -- because this issue has in fact never really been discussed sensibly in the context of the regional transport problem. Taxing people’s cars appears to be even more politically dangerous, at least in Canada, than taxing their houses.

²² GO recovers 80 to 85 percent of its operating revenue from the fare box and the provincial government subsidizes the remaining operating costs. The province is also responsible for the base capital funding for rehabilitation and replacement and provides funding for capital costs associated with growth and expansion. Contributions are also made by the federal and municipal governments but these amounts vary from year to year (Metrolinx 2012). With respect to the TTC, the 2013 operating budget indicates that revenues from the fare box account for almost 70 percent of total operating revenues. Subsidies from the City are 27 percent, and the remaining revenues were from advertising, property rentals, and other miscellaneous revenues (Toronto Transit Commission 2012b). Capital subsidies are provided by three levels of government – 47 percent from the City, 29 percent from the province, and 24 percent from the federal government in 2010 (Toronto Transit Commission, 2012).

²³ Metrolinx merged with GO Transit in 2009.

billion over 25 years. Metrolinx was also directed to develop an investment and funding strategy to support the implementation of the Big Move.

Five years later, it did so (Metrolinx 2013). By this time, \$16 billion had already been committed by three levels of government (mostly by the province). Of the remaining \$34 billion, 75 percent would fund regional transit capital construction and financing costs, ongoing rehabilitation and replacement costs, and the Metrolinx share of operating and maintenance costs. The remaining 25 percent of investments would be used for local roads and transit (up to 15 percent, to be matched by local contributions), improvements to the provincial and municipal controlled access highway network (up to 5 percent), and various other transportation initiatives such as walking and cycling infrastructure, fare integration, mobility hubs, urban freight movement, intelligent transportation systems and user information systems (up to 5 percent).

As part of its investment strategy, Metrolinx applied four “principles” in choosing how to pay for the projects set out in the Big Move. One was the very Wicksellian principle that all new revenues would be dedicated to specific outcomes in order to assure the public that the funds from the revenue tools are not being diverted to other priorities. Another, equally Wicksellian, was to promise accountability and transparency through regular reporting to the public on how the funds are being collected, managed, and spent. However, the other two key principles -- fairness in the distribution of benefits and costs of the investment strategy across population groups and equity across the region with respect to the benefits from transportation infrastructure – are both fuzzy and apparently more politically than economically motivated.

Five additional selection criteria were used to narrow down the 25 possible investment tools initially considered. The first criterion was that revenues would be significant, predictable and durable. The second criterion was that they would be reasonable in terms of cost and ease of implementation. The third criterion again fits well with the Wicksellian motive – the desirability of price signals to encourage efficient travel choices. The last two criteria – the promotion of economic competitiveness and fairness and social equality – again tilt more to political than to economic or administrative needs.

In the end, Metrolinx (2013) proposed that the Big Move should be financed by four specific revenue tools:

- By far the most important is a one percentage point increase in the provincial Harmonized Sales Tax (HST) to provide an estimated 65 percent of revenues;²⁴
- A five cent per litre increase throughout the GTHA in addition to the existing provincial taxes on gasoline and diesel fuel (15 percent of revenues);

²⁴ Somewhat oddly, given the existence already of a provincial tax credit intended to offset, *inter alia*, the effects on lower incomes of the HST, a special mobility tax credit was proposed to reduce the burden on those with lower incomes; probably the idea was simply to adjust the present credit although this is not spelled out in the report.

- A special “business parking levy” to be imposed as an addition to the market-value property tax on off-street, non-residential parking spaces (16 percent of revenues);
- The remaining revenues (about 5 percent) would come from updated and amended development charges levied by municipalities in the GTHA.

All the proceeds from these sources would flow into a new provincially-created GTHA Transportation Trust Fund to be invested and then distributed in accordance with the investment plan (Metrolinx 2013, 42).

The underling idea of this investment strategy is clearly to try to relate the revenue tools to the benefits of an improved transportation system -- “everyone benefits fairly – everyone pays fairly” (Metrolinx, 2013, 73). The main direct beneficiaries would obviously be drivers and transit users. However, businesses, property owners, and visitors should also benefit. Drivers benefit from a more efficient transit system because it potentially takes other drivers off the road and reduces congestion; they also benefit from an improved road network. Transit users benefit from an enhanced transit system. Businesses benefit because they can more easily attract skilled workers who find it easier to get to work; they would also benefit from being able to transport and receive goods and services at reduced cost and perhaps from having improved access to customers. Neighbourhoods and property owners would benefit because of the increased property values as a result of better access to transit. Visitors would benefit by being able to get around and access tourist sites more easily. There would also be indirect benefits to residents from reduced congestion, and to everyone from lower greenhouse gas (GHG) emissions and more environmentally sound compact development.

Clearly, some elements of this plan fit the Wicksellian approach: earmarked revenues, improved accountability, and some attention to pricing issues (including externalities). However, it is far from clear that the proposed payers for new transportation investments match up all that well with those who are likely to benefit (directly and indirectly) from the improved system. Table 5 provides a summary evaluation of the four revenue tools proposed in the investment strategy compared to several others that were considered and rejected in terms of who is responsible for levying the tax, who pays, who benefits, and how travel behaviour, urban form, and so on may be affected.²⁵

<Table 5 near here>

The most important question is clearly the proposed increase in the HST, the main new financial source proposed. The justification given for choosing this instrument is simply that residents and businesses throughout the region benefit socially, economically, and environmentally from an

²⁵ A study commissioned by Metrolinx reviewed 25 revenue tools in terms of revenue potential, costs, impact on behaviour and network performance, technical implementation, governance, equity and distributional impacts, and economic efficiency (AECOM 2013).

effective transportation system and that the tax would be paid by these beneficiaries as well as by non-residents (commuters and visitors) who would also benefit from an improved transportation system. Indeed, one reason for preferring the sales tax to increases in the main existing local tax, the property tax, is that, unlike the residential property tax, it would tax non-residents who use services in the region.²⁶ In addition, some benefits might also accrue to those neighbouring jurisdictions to the extent that people in the GTHA shop, work, or move their business to avoid the tax. Curiously, there is no mention in the report that there is no apparent way to implement an increased provincial sales tax only in the GTHA. In all likelihood, the HST would have to be raised in the province as a whole, with the estimated portion collected in the GTHA directed to the new Transportation Trust Fund and the balance perhaps remitted in the form of an enhanced sales tax credit to non-GTHA residents or perhaps channelled to municipalities outside the GTHA as a transfer. All in all, even if such a scheme may conceivably make this proposal administratively feasible, it is far from satisfying any reasonable ‘user pay’ rationale. Its main virtue is perhaps political: because the provincial government would be responsible for increasing the sales tax rate, local politicians would be off the hook.

The fuel tax has a similar political rationale – since it is a provincial tax, provincial rather than local politicians would be seen as responsible -- but it also has a much stronger economic rationale. Increased fuel taxes provide an incentive to drivers to make use of transit and thus potentially reduce congestion and greenhouse gas emissions; in addition, some of the funding would go to improved roads.²⁷ However, to a limited extent some drivers may purchase fuel outside of the region.²⁸

The last two components of the proposed revenue package, unlike the first two, would be the responsibility of local governments themselves.²⁹ The rationale for the business parking levy (based on the assessed value for property tax purposes) is that businesses benefit from a better transportation system. Curiously, the proposal seems to assume that businesses will bear the cost of the levy themselves rather than passing it on to drivers (where there is paid parking) or consumers (where parking is free). Regardless of its final incidence, this levy may perhaps reduce traffic congestion as fewer drivers hold up traffic while looking for a parking spot. Alternatively, it may perhaps result in a reduction in parking spaces and land being put to other, more economically rewarding (and socially valuable) uses.

²⁶ The important non-residential property tax (Bird, Slack and Tassonyi 2012) is not mentioned in the report.

²⁷ Kitchen and Lindsey (2013) review empirical studies on the impact of fuel taxes on driving and conclude that fuel taxes could reduce driving considerably in the GTHA, especially in areas with a good public transit system.

²⁸ Shopping around for cheaper gas is a problem in another Canadian city (Vancouver) which imposes a \$0.17 per litre charge to fund public transit (Kitchen and Lindsey 2013). However, the area of the GTHA is so large and the proposed tax is much smaller than in Vancouver that such cross-border shopping for fuel seems likely to be worthwhile only for large transport vehicles.

²⁹ Although local governments would collect the business parking levy through the property tax, it would likely be the provincial government that set the tax rate. These details have not yet been sorted out.

The last component of the recommended revenue package is an increase in the development charges. Development charges are currently levied throughout the GTHA to pay for the growth-related capital costs associated with new development. However, since municipalities cannot use such charges to provide services that exceed the average standard achieved over the previous 10 years and transit expenditures have been very small or non-existent in the areas in which most new (“greenfield”) developments are built, Metrolinx (2013) proposes a change to the rules to enable municipalities to levy development charges for transit.³⁰ The rationale for such charges, as with those levied to finance other public works such as streets, sewers, and parks is that land developers benefit from the increased residential and commercial development opportunities and the higher property values resulting from the public investment. Development charges, however, are more likely to be passed on to new homebuyers (or back onto landowners) than to be borne by developers (Slack and Bird 1991). Regardless of their incidence, however, such charges may also provide an incentive for denser developments close to existing services (Slack 2002), although only if they are levied on the basis of marginal costs, rather than the average cost basis currently used in most areas.

Table 5 also provides a summary evaluation of several other revenue tools. Some – high occupancy toll lanes, pay for parking at transit stations, and land value capture – were recommended by Metrolinx for their potential policy benefits; other tools in Table 5 were considered in Metrolinx (2013) but not finally recommended.³¹ In addition to the direct and indirect benefits of an improved transportation system, some of these tools are likely to have a positive impact on reducing automobile use (vehicle registration levy, highway tolls and high occupancy toll lanes, and paid parking at transit stations), reducing congestion (VKT and highway tolls and HOT lanes), and lowering GHG emissions (VKT, highway tolls and HOT lanes, and vehicle registration levy). In some cases who would end up bearing the additional fiscal burden is far from clear. The incidence of the property tax, for example, is usually assumed to be on property owners in the taxing jurisdiction but it may also be borne by others, for example, to the extent that business property taxes are exported to other jurisdictions.

Transportation provides a classic example of a local service in which the benefits spill over municipal boundaries. So, who benefits and who pays across the region? Metrolinx (2013, 75)

³⁰ A 10 percent discount is also applied to the assessed charges for transit.

³¹ All the items listed in Table 5 were included in the ‘short list’ of possible revenue sources considered in Metrolinx (2013) with the curious exception of vehicle registration levies, which were presumably excluded because the City of Toronto, which had been the only municipality entitled to impose such a fee, had recently decided to discontinue the tax. The stated rationale for excluding such levies as well as other vehicle-related fees such as taxes on auto insurance, drivers’ licenses, new vehicle purchases and parking was that such charges would provide little revenue and were not directly related to vehicle usage and thus provided no useful incentives. Additional corporate income taxes were rejected as impossible and undesirable at the regional level. Interestingly, the possibility of a personal income tax surcharge (which would be both technically possible and economically sensible) has apparently never been mentioned by anyone in the course of the long discussion of regional transit financing – an interesting commentary on the current low esteem in which this once dominant tax now seems to be held.

estimates that the City of Toronto (the core city of the region) would contribute 41 percent of the overall revenue generated by the investment tools and receive 42 percent of the funds (excluding development charges) and the suburban municipalities would contribute 59 percent of the overall revenues and receive 58 percent of the project funds (also excluding development charges). In other words, its revenue plan satisfies the initially stated goal of achieving at least rough ‘equity’ across the GTHA as a whole.

On the whole, however, although this report attempted to provide a package that would not only provide sufficient revenue to fund the planned investment but also be politically acceptable and even (to a small extent) provide incentives to more rational and sustainable transportation and development, it did not succeed in doing so. The report’s failure to square the circle of revenue, politics, and sensible economics is not surprising since almost no one anywhere has managed to do so. However, it is particularly glaring from the perspective of this paper because instead of narrowing the gap between the three circles of the Wicksellian Connection – those who decide, those who benefit and those who pay – it would actually make the connection even weaker by pushing most of the cost up to the provincial level and hence even further away from influencing the decisions of municipal politicians and officials, private developers, and businesses and households that have led to the problems the Big Move is supposed to resolve.

The basic problem in financing public transit is that it is impossible to pay for the needed infrastructure on a full cost recovery basis because the system as a whole is in competition with the heavily underpriced road system and that, to compound the problem, the road system is itself the critical substantial ‘feeder’ to the transit system for most people in the region. If one does not tackle road pricing properly, it is simply not possible to develop a sustainable public transit system without continuing and significant subsidization from general funds. The dependence of the Metrolinx plan on the probably technically infeasible HST supplementary charge might perhaps be seen as an implicit admission of this fact.³² The other three components of the Metrolinx revenue plan, as discussed above, are more promising from all perspectives -- economic, political and administrative – but they cannot generate the needed funds.

Metrolinx (2013), which argues that transit users should only cover operating costs and cannot be expected to cover capital costs to any significant degree, discusses the possibility and desirability of relying more heavily on charging road users more accurately for the costs to which they give rise but seems to think, probably realistically in political terms, that generating substantial funds from this source for public transit facilities is not something that is going to happen soon, or easily. Kitchen and Lindsey (2013) are more optimistic, recommending a package of road tolls, more efficient parking fee structures, and other road-user charges plus

³² Indeed, the fact that this recommendation has already been declared to be completely unacceptable by the federal government, which administers the HST, means that nothing is as yet actually settled about Metrolinx financing (“Federal Finance Minister Jim Flaherty rejects HST hike to fund public transit in Ontario,” *The Toronto Star*, May 30, 2013).

transit fares based on distance travelled and time of day. This approach, together with a program of borrowing for transit with such a package of user-related charges generating the funds needed to repay the loans, would obviously be much more sensible. However, even Kitchen and Lindsey (2013) fail to discuss just how these financing decisions should be made and who should make them – the most critical issues from the Wicksellian perspective.

5. The Political Economy of the Wicksellian Approach to Local Finance

This paper has emphasized the importance of the Wicksellian Connection — the tightness of the connection between decisions on public spending and on its financing — in determining whether local public policy decisions are right in the sense of being in accordance with citizens' wishes. The more closely spending and taxing decisions are linked by being made by the same body at the same time, the better government — viewed in its economic manifestation as a provider of services — will function. Canada — like most countries — has done little to establish a strong Wicksellian Condition with respect to the local governments which most directly provide public services to citizens. If it were ever to do so, not only would public spending efficiency improve but perhaps — at least in the dreams of an economist — different governments might even compete to be the most efficient provider in order to strengthen their political support.

To make this dream become a reality Breton (2004) suggests that local governments must not only be willing and capable of focusing on its achievement but they must also be prepared to break the golden chain of transfer dependency and demand to be treated like adults responsible for making and largely financing their own decisions.³³ This vision of mayors and councils throughout the land marching arm in arm on provincial and national legislatures to demand less money in transfers and more revenue-raising power of their own is far removed from present reality in most countries. The outstretched municipal hand is more common than the upraised municipal fist. But the question is important. The local level is where public sector efficiency is most directly relevant to daily life. If local governments are to be efficiently run they need to be essentially self-controlled, and to be self-controlled they need also to be essentially self-financed at the margin rather than dependent on the largesse of others.

Even the most empowered local governments cannot be expected to act efficiently and responsibly in the interests of their residents unless the intergovernmental fiscal structure is properly designed and monitored to ensure that external benefits and costs of local actions are fully accounted for. Unless the essential information on who pays what for what and why is not only transparent but easily accessible to and adequately understood — and accepted -- at least by

³³ To repeat a point made earlier, what is critical here is local decision-making at the margin. Inframarginal intergovernmental transfers for equalization purposes, like externality-compensating transfers at the margin, are both quite compatible with the Wicksellian model.

the critical few among the local public it is unlikely that even the best-run and best-governed locality will make all fiscal decisions in a socially efficient way. The political advantages of providing services with ‘other people’s money’ are so great and the technical difficulties of evaluating and pricing many public services so often important that even exceptionally strong intergovernmental, reporting, and accountability structures are unlikely to lead to the achievement of anything close to public sector efficiency in complex metropolitan regions like that discussed in Section 4, whether or not there is an adequate overreaching metropolitan governance structure.³⁴

Like most ideals, that discussed in this paper is unlikely to be attainable in the world in which we live. Nonetheless, it is not hard to think of how to move towards establishing a stronger Wicksellian Connection between taxes and expenditures at the local level. One might, for example, begin by establishing the foundations: an improved information base available to local officials and citizens; better technical support (e.g. in establishing good pricing systems); and an appropriate local equalization transfer system to induce localities to focus more on efficient provision of services at least cost.

Although many citizens in Canada as elsewhere appear to be not all that happy with what governments do, most seem to attribute bad outcomes mainly to the unfit crowd in charge rather than to flaws in the design of the ship of state. Even if people care only about results and not processes, however, outcomes depend as much or more on the way in which policies are decided on than on the policies themselves, let alone on which particular set of politicians and officials came up with them. The way we ‘do’ politics -- like the way different countries ‘do’ local finance as shown in Section 2 - has largely been inherited from the past and was inevitably shaped by what was then technologically feasible. Until recently, for example, only people in the very smallest communities were able to decide for themselves about most things in the political sphere. Representative democracy has many positive merits relative to direct popular democracy. It may perhaps be more conducive to reflective, rather than emotive, decisions. It may force people to take a longer view. It may enable us to select representatives who may be able to make good decisions. All of this may or may not be true. In the past, however, we really had no choice of how to conduct public business in a large democratic country: it was representative democracy or nothing. This is not true now.

It is now technologically feasible for everyone to be able to vote on anything at any time — if we want to follow this path. There may be good reasons why we should not do so and should instead stick with the tried and true systems we have. But there are also bad reasons for doing so, including what seems to be the deep distrust of many in the elite with respect to the ability of

³⁴ There is no such structure in the GTHA region. As Bird and Slack (2013) emphasize, the lack of adequate metropolitan regional governing structures in most countries is a serious constraint in providing local services efficiently.

ordinary people to decide what is best for them. Some seem to think that if people are allowed to decide important things – like public policies – they will often act emotionally, irrationally, and against their own long-term interests. It may well be true that people are and would remain rationally ignorant of most public policy issues. It may also be true that few would be willing to put in the hard work needed to make such power-sharing worthwhile and that the process might — despite technological advances that allow us both to generate the needed information and to make it easily available to all relatively cheaply — turn out to be slow and inefficient or seized and controlled by a self-selected few. More widespread and direct political participation, like more transparency in government in general, would certainly not only make the life of governments more difficult but might also bring to the surface fundamental disagreements on norms and hence increase rather than reduce conflict. One result might be less growth and more redistribution, or the opposite. All this is reason for caution.

Still, if democracy, as Churchill once said, is the worst of all governments except for all the rest, might not the same be said of more participatory democracy, perhaps especially at the local level where introducing much stronger market elements than are now present in most countries is now technologically feasible as well as — as argued in this paper — economically desirable? Sharing power is always a scary exercise — especially for those who now have the power — but perhaps the time has come to see which 19th century sage was right: the one who said there is a fool born every minute, implying that people are best seen as suckers to be fooled or sheep to be fleeced, or at least led? Or the one who said you can fool all of the people some of the time and some of the people all of the time, but you cannot fool all of the people all of the time?³⁵ No one has the answer to such questions, but perhaps the time has come to begin thinking about restructuring local government finance in ways that may let us test the degree and danger of local foolishness in ways that -- provided the Wicksellian Connection is firmly in place — will not cause undue harm to innocent bystanders.

³⁵ The first ‘sage’ is usually said to be P.T. Barnum a famed American showman and the second is usually said to be Abraham Lincoln, although in fact neither saying can be accurately attributed — unlike Churchill’s remark, which is discussed in depth by Lindert (2003).

Table 1: Distribution of Local Government Revenues, Selected OECD Countries, 2010

	Local government revenues relative to GDP (%)	Taxes and user fees relative to local expenditures (%)	% of Total Revenues			
			Taxes	Transfers	User Fees*	Other Revenues**
Austria	7.8	68.7	62.0	18.7	10.2	9.1
Czech Republic	11.6	55.3	40.7	41.7	16.1	1.5
Denmark	37.1	39.1	34.3	57.5	4.9	3.2
Estonia	10.4	54.6	44.6	44.6	9.0	1.8
Finland	22.4	66.9	46.2	29.6	21.4	2.8
Germany	7.3	51.3	40.0	40.6	15.5	3.9
Hungary	11.5	28.6	21.2	67.1	10.2	1.5
Ireland	6.7	23.7	13.4	67.2	9.2	10.1
Italy	15.3	45.3	40.1	50.9	7.0	2.0
Luxembourg	5.2	49.2	31.2	49.2	18.1	1.5
Norway	14.2	50.1	41.1	42.2	12.7	4.0
Portugal	6.3	40.7	34.3	43.2	12.6	9.9
Slovenia	9.9	51.3	42.0	45.3	11.4	1.3
Spain	6.4	47.5	45.1	44.4	8.9	1.6
United Kingdom	13.9	25.4	12.7	71.8	12.9	2.6

*User fees are defined as sales of goods and services. Figures for Denmark, Estonia, and Ireland are estimates.

**Other revenues include social contributions, property income, and other subsidies on production.

Source: Source: OECD (2012) "General Government Accounts: Public finance and employment: revenues," *OECD National Accounts Statistics* (database)

Table 2: Distribution of Local Taxes, OECD Countries, 2010

	Local Taxes			As % of Local Taxes			
	As % of total taxes	As % of local revenues	As % of GDP	Income*	Goods and services	Property	Other**
Australia	3.5	n.a.	0.9	0.0	0.0	100.0	0.0
Austria	3.3	62.0	1.4	61.4	9.9	15.4	13.3
Belgium	5.1	n.a.	2.2	36.7	9.9	53.2	0.3
Canada	10.2	n.a.	3.2	0.0	2.0	91.2	6.8
Chile	6.2	n.a.	1.2	0.0	59.7	40.3	0.0
Czech Republic	1.3	n.a.	0.5	0.0	48.5	51.5	0.0
Denmark	26.7	36.1	12.7	89.0	0.1	10.8	0.1
Estonia	13.4	49.0	4.7	89.6	2.6	7.8	0.0
Finland	24.4	46.2	10.4	93.6	0.0	6.3	0.1
France	10.8	n.a.	4.6	8.4	25.3	53.8	12.5
Germany	7.0	40.0	2.9	78.1	6.0	15.8	0.1
Greece	1.1	n.a.	0.3	0.0	21.4	24.0	54.7
Hungary	6.4	21.2	2.4	0.2	80.0	14.2	5.6
Iceland	25.5	n.a.	9.0	77.4	2.0	20.6	0.0
Ireland	3.2	14.8	0.9	0.0	0.0	100.0	0.0
Israel	7.5	n.a.	2.4	0.0	4.8	95.2	0.0
Italy	15.4	40.1	6.6	25.0	32.9	9.4	32.7
Japan	25.9	n.a.	7.2	48.6	19.4	29.8	2.2
Korea	16.7	n.a.	4.2	16.8	26.7	16.3	40.1
Luxembourg	4.4	31.2	1.6	92.2	1.4	4.4	2.0
Mexico	1.2	n.a.	0.2	0.3	1.7	59.3	38.7
Netherlands	3.8	n.a.	1.5	0.0	50.0	47.6	2.3
New Zealand	7.2	n.a.	2.3	0.0	8.7	91.3	0.0
Norway	13.6	41.1	5.8	88.5	1.4	4.8	5.3
Poland	12.7	n.a.	4.0	58.2	8.3	29.1	4.4
Portugal	5.7	34.3	1.8	34.6	26.4	33.9	5.2
Slovak Republic	2.9	n.a.	0.8	0.0	49.2	50.8	0.0
Slovenia	10.9	42.0	4.2	78.5	6.5	11.9	3.2
Spain	9.5	45.1	3.1	20.6	39.2	29.6	10.6
Sweden	35.4	n.a.	16.1	97.4	0.0	2.6	0.0
Switzerland	15.6	n.a.	4.4	84.3	1.3	1.4	13.1
Turkey	9.5	n.a.	2.4	24.5	49.8	11.1	14.5
United Kingdom	5.1	12.7	1.8	0.0	0.0	100.0	0.0
United States	16.1	n.a.	4.0	5.2	21.4	73.4	0.1

* Includes income and payroll taxes

** Includes social security contributions, other property-related taxes, and other taxes

Source: OECD (2012) *Revenue Statistics, 1965-2011*

Table 3: Local Expenditures, Selected OECD Countries, 2010

	Local expenditures as % of GDP	Local expenditure as % of total expenditures	Local taxes as % local expenditures
Austria	8.2	30.0	59.0
Belgium	7.0	13.3	31.9
Czech Republic	11.9	27.0	39.7
Denmark	37.3	64.4	34.1
Estonia	10.3	24.6	45.5
Finland	22.6	40.7	45.7
France	11.8	20.9	39.0
Germany	7.9	16.6	36.0
Greece	2.8	5.7	11.9
Hungary	12.7	25.6	19.3
Iceland	13.4	26.0	67.1
Ireland	6.5	9.7	13.5
Israel	6.1	13.5	39.9
Italy	15.9	31.6	41.4
Korea	13.0	43.2	n.a.
Luxembourg	5.3	12.3	31.1
Netherlands	17.2	33.6	8.6
Norway	15.2	33.5	38.3
Poland	15.1	33.2	26.8
Portugal	7.2	14.1	24.6
Slovak Republic	7.3	18.2	11.4
Slovenia	10.3	20.1	40.3
Spain	7.3	15.8	41.9
Sweden	25.1	47.9	64.1
Switzerland	7.5	22.1	58.5
United Kingdom	14.0	27.8	12.6

Source: OECD (2011) "General Government Accounts: Government expenditure by function," *OECD National Accounts Statistics* (database)

Table 4: Distribution of Local Government Expenditures, Selected OECD Countries, 2010 (%)

	General Public Services	Public Order, Safety, Defence	Economic Affairs	Environment Protection	Housing and Community Amenities	Health	Recreation, Culture and Religion	Education	Social Protection
Austria	59.0	1.9	11.9	3.9	2.9	19.2	6.6	17.5	19.5
Belgium	18.8	13.2	10.7	5.0	2.2	0.5	9.1	19.4	21.1
Czech Republic	12.4	2.0	22.8	8.0	4.3	2.0	8.3	29.1	11.0
Denmark	4.0	0.3	4.1	0.6	0.4	22.4	2.3	10.7	55.2
Estonia	8.2	0.3	10.5	3.0	5.1	16.2	9.2	39.4	8.1
Finland	14.4	1.2	6.1	0.4	0.9	29.4	3.9	18.7	24.8
France	17.0	3.1	13.3	8.4	14.7	0.7	9.8	15.3	17.7
Germany	18.0	3.2	13.9	5.1	4.3	1.8	6.6	14.5	32.7
Greece	45.3	0.8	15.9	16.5	4.1	0.0	3.8	1.5	12.1
Hungary	17.4	1.7	10.1	3.5	4.4	14.9	6.1	29.3	12.6
Iceland	11.7	1.0	7.2	2.2	2.3	0.7	18.6	36.4	19.8
Ireland	3.3	2.8	25.0	12.7	15.4	0.0	5.2	22.7	12.9
Israel	16.9	2.8	6.4	8.5	2.8	0.4	11.8	32.9	17.4
Italy	13.7	1.5	14.0	4.9	3.8	46.6	2.8	7.6	5.2
Korea	17.1	2.1	18.9	4.7	7.3	4.1	4.2	29.3	12.2
Luxembourg	25.1	1.7	16.1	12.9	7.8	0.3	13.0	17.0	6.2
Netherlands	7.9	6.8	18.1	9.5	3.5	1.6	9.0	28.3	15.2
Norway	9.8	1.1	9.2	3.8	4.3	13.4	5.6	26.0	26.8
Poland	9.5	2.0	18.5	4.1	5.3	14.6	7.4	26.2	12.4
Portugal	29.6	0.9	24.2	7.2	7.5	4.9	8.9	10.5	6.3
Slovak Republic	15.5	1.3	14.3	6.6	9.4	0.3	6.9	38.8	6.8
Slovenia	9.8	1.5	12.8	4.1	4.6	10.3	11.9	35.1	9.8
Spain	31.6	7.1	20.0	9.5	5.2	1.4	13.0	3.6	8.6
Sweden	11.1	0.9	6.1	0.8	2.6	27.3	3.6	21.2	26.5
Switzerland	17.0	6.1	14.6	6.3	2.1	3.4	6.9	25.6	18.0
United Kingdom	5.7	9.7	8.7	4.1	5.4	0.0	3.7	32.8	29.9

Note: Police and fire protection services are included in public order and safety; transportation is included in economic affairs; waste and waste water management are included in environmental protection; housing, water supply, and street lighting are included in housing and community services includes; public health and hospitals are included in health.

Source: OECD (2011) "General Government Accounts: Government expenditure by function," *OECD National Accounts Statistics* (database)

Table 5: Distribution of Costs and Benefits of Alternative Revenue Tools for Public Transit

Revenue Tool	Description	Responsibility for Levying Tax/Charge	Who Pays?	Impacts of Revenue Tool
Main Revenue Tools Proposed by Metrolinx				
Sales tax	Piggyback on provincial sales tax	Province would levy and collect tax	Residents, commuters, businesses, visitors	Neighbouring jurisdictions benefit from cross border shopping, work and business location decisions; no impact on travel behaviour
Fuel tax	Piggyback on provincial fuel tax	Municipalities/regions could levy surcharge on provincial tax; province collects tax	Drivers	Neighbouring jurisdictions benefit from cross border fuel purchases; reduction in vehicle use benefits residents (reduced GHG emissions)
Business parking levy	Tax levied on assessed value of non-residential parking spaces	Municipalities collect tax; province sets rate	Businesses and/or drivers depending if parking is free or not; if borne by businesses, could be passed on to consumers	Reduced parking congestion benefits drivers; more space for other uses benefits users of space
Increased development charges	Charge per lot for growth-related costs associated with new development	Municipalities would levy charges	Developers, land owners and/or new homebuyers	Helps meet “smart growth” objectives if based on marginal cost

Revenue Tool	Description	Responsibility for Levying Tax/Charge	Who Pays?	Impacts of Revenue Tool
Other Revenue Tools Recommended by Metrolinx				
High Occupancy Toll lanes (HOT)	Vehicles with one person travel in HOT lanes by paying a toll	Metrolinx or Province	Drivers in HOT lanes	Increased speed for drivers in tolled and untolled lanes; increased choice
Paid parking at transit stations	Charge for parking at transit stations	Metrolinx	Transit users who drive	Reduced land dedicated to parking; fewer drivers to transit stations
Land value capture	Tax that captures incremental increase in land value from transit investment	Metrolinx or municipalities	Developers, land owners and/or residents and businesses	Help achieve ‘smart growth’ objectives through denser developments
Other Revenue Tools				
Increase in property tax	Tax on assessed value of residential and non-residential property	Municipalities would levy and collect tax	Residential tax on property owners/tenants; business tax on owners, tenants, consumers in taxing and other jurisdictions (tax exporting)	Potential reduction in density of development
Transit fare increase and/or change in structure	Could vary with distance travelled and/or time of day	Municipal transit authorities	Transit users	Varying fare by distance and time of day improve efficiency of system, benefitting users
Highway tolls	Charge for use of highway	Province levies and collects tolls	Drivers on toll roads (indirectly, drivers on untolled roads through increased congestion from diversion)	Reduces vehicle use; benefits residents through lower GHG emissions; benefits drivers through less congestion
Vehicle registration levy	Piggyback on provincial levy per vehicle owned	Municipalities would set rate; province would collect tax	Vehicle owners	Reduces vehicle purchases; benefits residents through lower GHG emissions
Vehicle Kilometres Travelled (VKT) fee	Fee system based on vehicle miles travelled	Province or Metrolinx	Drivers	Reduces number of trips at peak times; more efficient system for drivers
Payroll tax	Tax on employers	Province	Employers and employees	No impact on transportation or land use; potential impact on jobs and economy

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