Financing Infrastructure: Who Should Pay?

Richard M. Bird and Enid Slack

Abstract

Most current discussion of the infrastructure gap in Canada today often amounts to little more than a plea for someone else to pay the bills. However, although there are some reasons for higher-level governments to provide some local infrastructure projects, in the end, the bill must be paid either by user charges or by taxing someone and, whenever feasible, user charges are better. What we should do – make users pay whenever possible – is clear. In fact, however, we seldom do so. In this paper, drawing heavily on our recent book we discuss briefly why users should pay, why they seldom do, and how we may perhaps do better in the future.

Key words: infrastructure, user charges

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As Adam Smith (1776) said long ago, local public works such as roads and bridges should be financed and managed by the appropriate local government and paid for by those who use them. Most current discussion of the infrastructure gap in Canada today often amounts to little more than a plea for someone else to pay the bills. However, although there are some reasons for higher-level governments to provide some local infrastructure projects, Smith was broadly right. No matter how infrastructure is financed, there is no free lunch. In the end, the bill must be paid either by user charges or by taxing someone and, whenever feasible, user charges are better. What we should do – make users pay whenever possible – is clear. In fact, however, we seldom do so. In this paper, drawing heavily on our recent book (Bird and Slack 2017) we discuss briefly why users should pay, why they seldom do, and how we may perhaps do better in the future.

Why Users Should Pay

People should pay directly for many services provided by the public sector, particularly such congestible services as roads or water and sewerage provided to easily identifiable users.[2] One reason is simply because services that users pay for do not need to be paid from distorting taxes that reduce economic welfare. Another reason is because, when user charges for services fully cover the marginal social cost of providing them, people buy such services only up to the point at which the value they receive from the last unit they consume is just equal to the price they pay, so that resources are more efficiently allocated. Moreover, providers who are financed by full-cost pricing have incentives to adopt the most efficient and effective ways of providing the service and to supply it only up to the level and quality that people are willing to pay for. In

[1] This is a revised version of a paper presented at the 110th Annual Conference of the National Tax Association, Philadelphia, November 9, 2017. The authors are, respectively, a Senior Fellow at and the Director of the Institute on Municipal Finance and Governance, Munk School of Global Affairs, University of Toronto.

[2] As De Mello and Sutherland (2016) emphasize, charges are especially desirable for congestible infrastructure because they both signal where new investment is needed and provide funding for it. We do not attempt here to classify investment in terms of what might be called its 'chargeability': for earlier attempts, none of which is wholly satisfactory, see Bird (1976), Kessides (1993), Bird and Tsiopoulos (1996) and De Mello and Sutherland (2016).

addition, when services are financed fully by user charges, political decision-makers can more readily assess the performance of service managers -- and citizens can do the same with respect to the performance of politicians.

Of course, the rosy scenario just sketched rests on several critical assumptions that are unlikely to be fully satisfied by fallible human beings living in a changing, uncertain, and imperfect world. It is not surprising that even something as (relatively) simple as pricing water is usually far from perfect. In Ontario, for instance, although water pricing has improved in recent years, it still falls far short of full-cost pricing and does not come close to pricing current usage on a marginal cost basis (Kitchen 2017). Even in Switzerland, which has perhaps taken the design and implementation of good user charging in water further than anywhere else, some localities still fall short of best practice, and the divergence between reality and the economically ideal is even greater when it comes to pricing sewer services and solid waste disposal (Dafflon 2017).

One reason for this divergence is because it can be difficult to design and implement public pricing systems. Some complexities are unavoidable. But a more important reason we seldom price well in the public sector is because little attention has been paid in practice to the importance of good public pricing, perhaps because few people appear to accept the basic economic rationale for such pricing sketched above. One result is that the need for increased investment in public infrastructure – for example, new investment in roads and transit to relieve congestion – is usually overestimated. Often, the only response considered to deal with congestion and demands for more and better services is to increase supply -- even though experience has demonstrated time and again that doing so often simply resets the 'infrastructure gap' button and results in still more unsatisfied demands in the future. Measures of the infrastructure gap (or deficit) in Canada and problems with their estimation are summarized in Box 1.[3]

[3] Even if one accepts the estimates of the infrastructure gap, the evidence suggests that one should be skeptical both of the business cases made for specific projects – a recent Canadian study, for example, suggests that few of the cases made for major transit projects indicate significant net benefits for society (Iacobacci 2017) – and of the validity of the cost and benefit estimates even in the best cases, given the substantial evidence of significant cost overruns and benefit shortfalls in large projects everywhere (Flyvbjerg 2007).

Box 1. Measuring the Infrastructure Deficit in Canada

The most often cited estimate of Canada's municipal infrastructure deficit is $123 billion, a number put forward by the Federation of Canadian Municipalities (FCM) back in 2007. More recently, FCM produced a Canadian Infrastructure Report Card, based on a survey of municipalities across the country, which estimated that the replacement value of all municipal assets in 2009−10 (including municipal roads, drinking water, and wastewater and storm water infrastructure) was $538.1 billion. About 10 percent of these assets were estimated to be in very poor condition and another 20 percent in fair condition, and the estimated need for new infrastructure investment in the near future was $172 billion (Federation of Canadian Municipalities 2012).

Although these and similar numbers put out by other organizations are often cited in public discourse, these estimates are suspect. They are often based on surveys conducted by associations with a vested interest in making the number significant enough to attract federal and provincial funding. Some rely on benchmarks or standards set by associations with an incentive to inflate the size of the deficit. Often, such benchmarks are based on engineering standards and assume that existing taxing and pricing policies for the services delivered by the assets will continue. No estimates allow for the possible effects of more effective demand management or conservation-based pricing policies.

Two economic reasons are often given for relieving infrastructure users of part or all of the cost of supplying the services they enjoy: economies of scale and externalities. For example, public water supply is often considered to be a 'natural monopoly' because the average (and marginal) cost of supplying a unit of water declines as output increases so that pricing water at marginal cost would result in an unsustainable deficit. However, relatively few water systems seem to operate in the decreasing cost range (Nauges and van den Berg 2008) and it must always be remembered that when users do not pay the full costs taxpayers must through taxes that impose welfare costs. Moreover, because pricing services below cost artificially inflates the demand for more infrastructure, the total distortionary impact of such tax finance tends to increase over time. Although economies of scale may sometimes be important they never tell the whole story when it comes to who should pay, how much, and when. Externalities may at times raise more complex issues; again, however, the external benefits associated with infrastructure investments are often highly case-specific and difficult to measure (e.g. Parry and Small 2009), and it seldom obvious who, if not users, should pay how much for them.

Even when charges are imposed they are seldom well designed. Often, for example, charges are set simply to cover current operating costs. In principle, *all* costs relating to the services provided to users, including those related to investment (amortization, interest), should be covered (Dafflon and Daguet 2012). Provided all inputs are secured from competitive markets – that is, correctly priced in economic terms - such full-cost pricing will send the right signals to users and managers and will also provide sufficient resources to finance the provision of the service at the economically correct level – that is, the level at which the benefits to society are at least equal to the social costs of providing the service -- without requiring additional budgetary support. But it can be difficult to set such prices properly. Is marginal-cost pricing desirable and feasible? Under what conditions should charges be altered? What weights should be attached to the equity dimensions -- intergenerational, horizontal, and vertical – of public prices? Questions like these are seldom easy to answer definitively.

Nonetheless, the basic take-away message remains clear: user charge financing is the best way we know to ensure that those responsible for providing public services are not only adequately financed but also encouraged to do so in the economically most efficient way possible. In effect, a public provider financed by full-cost pricing is like a business enterprise in a perfectly competitive market, whether the provision of services is organized and run by a government department, an independent agency or by a separate public utility enterprise (or, indeed, a properly regulated private company).[4] For such pricing to do the job properly, however, three important conditions must be satisfied:

- First, because good user charges should match the specific costs and benefits associated with services received by each individual user, considerable institutional, administrative and legal preparation as well as substantial (and accurate) accounting information is required to design and implement a good system of user charges (as Dafflon, 2017, nicely illustrates for the Swiss case). Few, if any, jurisdictions in North America come close to meeting this condition.

[4] Bird and Slack (2014) suggest that this 'benefit' model can be extended to encompass most activities usually carried out by local governments to the extent the local property tax operates as a sort of 'generalized user charge' (as well as a relatively economically efficient form of general taxation).

- Second, people need to understand and accept the case for charging properly for public services – something that is now demonstrably not the case for the most part, as we discuss further below.
- Third, given the technical and political costs of designing and implementing an economically sound charging system, it is worth the effort of doing so only when it really matters – that is, provides a net social benefit. Major expansions of public infrastructure investment would seem to be an instance where the potential benefits of pricing right are worth the costs of doing so.

As the Canadian examples set out in Box 2 illustrate, however, even when governments impose user charges – as most do to some extent – such charges are seldom well-designed and almost never play any significant part in determining infrastructure investment decisions.

Box 2

Pricing Municipal Infrastructure: Some Canadian Examples

Current practice in setting user fees in Canada almost always deviates from what is fair, efficient, and accountable. Most fees are set to generate revenue rather than to allocate resources to their most efficient use, as the following examples (based mainly on Kitchen and Tassonyi, 2012; Slack 2016; and Slack and Tassonyi 2017) show:

Water and wastewater – Most municipalities set prices that vary with consumption but at constant unit rates. Sewage collection and treatment are generally recovered through surcharges on the water bill and are not based on sewage flow so that wastewater pricing is based largely on volumes of water used rather than on the volume of sewage discharged.

Storm water management – Most Canadian municipalities pay for storm water management from tax revenues. A few have recently introduced a storm water levy based on the impervious area of the property – a measure that usually correlates with the property's contribution of runoff volume to the collection system.

Solid waste collection and disposal – Some municipalities charge for waste pickup and disposal though often not on volume or weight. Most commonly, charges are imposed for special tags to be attached to each garbage bag or customers are required to place all garbage in a special container and pay a fee for each container, which may vary with the size of the container.

Transit -- Transit is funded, at least in part, from user fees in cities across Canada. In the Greater Toronto and Hamilton Area, transit fare revenues cover between 70 and 80 percent of operating costs (one of the highest proportions in North America) but of course a smaller fraction of total

costs when infrastructure investment is included (Kitchen and Lindsey 2013). In other Canadian cities, farebox revenues account for a much smaller proportion of total revenues.

Parking -- Local governments in Canada can and do charge for car parking on local roads, but they rarely charge efficiently. On-street parking in high-demand areas is often priced well below its scarcity value. Often, privately owned garage parking is overpriced because operators possess a degree of monopoly power owing to their unique locations.

Roads -- Excessive highway congestion, environmental degradation, lost productivity, and reduced economic activity exists in many large cities and urban areas in Canada (Kitchen and Lindsey 2013). But little has been done to price more efficiently, apart from a few toll roads and high occupancy toll (HOT) lanes on a few highways.

Financing long-lived investment in infrastructure by borrowing is often sensible (Kitchen and Tassonyi 2012). However, borrowing -- like public-private partnership arrangements (Siemiatycki 2017) -- does not provide 'free money.' Loans must be repaid (and private partners rewarded) and the only way to do so is through user charges or taxes. Politicians, whose horizons are often relatively short, understandably prefer to shift costs to the future (or to another level of government). Harried local taxpayers are usually equally willing to put off to tomorrow (or, even better, to someone else) the pain of paying taxes for debt service. Borrowing (whether direct public borrowing or through – usually more costly – private partners) may be the best way to shift costs forward to the next generation to the extent benefits from the project financed are estimated to flow to that generation.[5] Borrowing may sometimes also make sense to 'smooth' tax increases over time to match the expected benefit flow from the project financed. But it never lets one dodge the real question: who should pay?

Why Users Seldom Pay the Right Prices

Telling the truth about what needs to be done – relying on evidence, as academics like to say – is desirable in principle. But it is not easy to tell complex truths in ways that persuade

[5] See Heim (2015) for an interesting discussion of this process at work in two U.S. cities over time.

people who are not ready to hear them. Correcting false beliefs is difficult.[6] It takes careful planning, hard and persistent effort, and good leadership to persuade people that something they believe – for example, that user charges are often unfair, regressive, and just another name for taxes – is wrong. Advocates of more and better user pricing in the public sector face a tough audience.

Economic arguments about scale and externalities are often used against pricing. As mentioned earlier, however, such arguments seldom tell the most important story and are sometimes little more than assertions used to support a pre-determined conclusion.[7] Similarly, while there are some difficult technical problems in designing and implementing pricing schemes, many such problems are becoming easier to resolve. When, for instance, poor farmers in Africa can buy and sell on their GPS-equipped mobile phones, the scope for effectively pricing (say) road use is clearly much greater – especially in more developed countries - than it was even ten years ago. The main obstacles to more sensible pricing are now seldom economic or technical; they are political. Some opponents want to obfuscate what is going on; some have distributional concerns that they think justify underpricing public services; and some seem to think that services that are 'public' enough in nature to be provided by the public sector should be provided freely to all.

For example, suggesting that transit fares should be higher during rush hours when congestion is higher are often viewed as being simply morally wrong – the equivalent of raising food prices at times of famine. In economic terms, however – that is, to ensure the best possible use of scarce resources -- such proposals are right. Failing to vary prices to encourage more even usage of facilities over time inevitably increases the pressure to build still more public infrastructure to accommodate peak demand increases. Many jurisdictions now have the data available to price more correctly, which often means in a more time-sensitive way, if they want to do so. Airline pricing, for example, is already as more complex and variable as anything even the most finicky public pricing designer is likely to come up with. Firms like Amazon vary

[6] Many attempts to rectify false 'myths' fail: simply repeating something false in order to refute it may reinforce the salience of the false argument to those who have already heard it, and the more times people hear something, even if they are told it is false, the more likely they are to believe it (Schwarz, Newman, and Leach 2016).

[7] For some further discussion of this point, see the references cited on economies of scale in Slack and Bird (2013) and on externalities (with respect to transfer program design) in Smart and Bird (2010).

prices on a wide variety of items by the minute and no one seems to think anything of it. So far, however, governments have made little effort to join the ongoing pricing parade.

The reason is not inadequate economic understanding or lack of technical competence. Usually, we do not price correctly because those in charge do not want to do so or do not think they can sell people on pricing or, perhaps, both. Most people think, often correctly, that they have no choice. To keep their jobs, they must travel at peak hours. If correct prices were charged, economists argue that over time employers would adjust working hours or pay more to keep staff so that in end, on average, people would be better off. They might be right. However, in the real world where almost no one is 'average' in terms of where they live, where they work, the skills that they have, their contacts, and so on, the lives of many may be drastically changed for the worse for years while such adjustments take place. People do not like change, and they certainly do not welcome change imposed on them by others. We might all be better off if road use and transit were sensibly priced. But to get there from here some of us would have to change (and perhaps even lose) our jobs, our houses, and our way of life, perhaps forever. Visions of a perhaps slightly better earthly paradise in the future are seldom persuasive to those who see such costs looming before them.

Economists have tended to pay too little attention to such issues. One reason may be because they often perceive such problems as a transitional issue that in principle may be dealt with by providing an offsetting distributional transfer in some compensatory way. In practice, however, no government at any level anywhere has done much to provide such offsets directly to those affected. And even if a distributional offset were to be provided, many people would still be unhappy because how people view changes depends not simply on the nature and size of the change but also on who decided it and how: Were *they* consulted? Were *their* views are visibly considered? Is the proposal consistent with *their* view of the world? Some may think, for example, that public services should be provided free for all either as a matter of right or because they have already been paid for by general taxation. Or they may think that it is not fair to charge them for new infrastructure when in the past others got similar services for free. Or they may simply not believe that governments will (or perhaps can) deliver the promised benefits or think that government should be in the business for which they, the people, are being asked to pay.

Given the resistance that user charge proposals frequently generate, whether reasonable or not, it is not surprising that politicians generally prefer to avoid imposing charges. And even if they do so, the user charge system they end up putting into place is often so hobbled and complex -- with cross-subsidies here, special concessions there, and a complex financing structure that shifts costs outside the circle of direct beneficiaries (e.g. to the future) -- that it is never quite clear who is paying how much for what. Local politicians -- who must literally live with their constituents, employees, and suppliers -- may be especially tempted to charge too little and in the wrong way. It is much easier to ask for transfers from higher-level governments than to deal with outraged neighbors.

How to Do Better

Economists often assert that, as a recent paper puts it, "a user-pay model would work to eliminate political influence, create revenue for infrastructure renewal, and facilitate an optimal allocation of infrastructure resources" (Bazel and Mintz 2015, p. 2). They are right in principle, but no one seems to have been listening. As with free trade, the fact that economists say something is not very persuasive to people who see some policy as adverse to their immediate direct interests and doubt that it will be sufficiently beneficial in the long run to make the pain of adjustment worth bearing. Faced with such resistance, a common response by analysts is to emphasize that better data, more transparent processes, a simpler and more understandable pricing system, and more education will, over time, lead more to see the light (Slack and Tassonyi 2017). Desirable as more transparency and education are, however, on their own they are unlikely to offset the evident distrust many feel with respect to charging for public services. To sell user charges, much more attention needs to be paid to the 'transitional' issues that affect people's lives in a salient fashion and appear to shape their reaction to proposed changes.

People assess possible changes against their perception of present reality. Reactions to change are often anchored to the status quo. As everyone in the budgetary game knows, for example, what matters is often less whether what is proposed is 'right' in some conceptual sense than precisely how and in what way it will change whatever it is we are now doing. User charges have a big hurdle to jump in this respect, especially if they charge for something that

people now perceive to be free. Nothing is free when it comes to using scarce resources. But no one now has to pay out of pocket for pulling out of the driveway onto a city street, let alone pay more for doing so in a congested downtown area or so at peak hour. Persuading people they should pay in money as well as time for the privilege of being stuck in rush hour traffic is not an easy sell. Most people think that the cost of using their automobile is what they pay for fuel and any parking charges. Period. Few account for the much larger private costs of operating and maintaining a vehicle, let alone providing home storage for it and the more esoteric opportunity costs of commuting time. And perhaps only the odd economist even thinks of the additional costs one's commute imposes on everyone else.

Even when charges already exist, as they usually do for parking and water, it is often as difficult to change them as to launch a new charging system. Public pricing systems are sticky in the sense that prices tend to stay where they are first set (Bird 1976). Moreover, public services are often priced like postage stamps, with everybody in the jurisdiction paying the same price, regardless of how much it costs to provide them the service in question. Because people tend to anchor to the status quo and changes are difficult to make, it is best to get it right in the first place.[8] Unfortunately, governments almost never face a clean slate even with respect to brand-new infrastructure projects because the services such projects provide have their own pricing (or non-pricing) history. Moreover, sometimes people may frame proposed changes against some conception of a past 'golden age' (or an equally idealized future) in which government services are free for all and somehow magically supplied without anyone explicitly paying for them.

Another important policy concern is the perceived unfairness of most user charges. Some may think that charging for services is just another way for the government to take away their hard-earned money. Sheffrin (2013) suggests that the relevant frame within which many think about such matters is closer to what he calls 'folk justice' than to the consequential equity (the effect of policy change on income distribution) that is usually the focus of technical analysts. A critical aspect of folk justice is the extent to which people feel that their voice has been heard and respectfully considered in developing and implementing any proposed policy change. Those who wish to change pricing policies need to focus more on what really shapes people's views about prospective changes than on how consistent the results may be with utilitarian, Rawlsian or other

[8] For a good example, see the discussion of water pricing in Quebec in Meloche and Vaillancourt (2017).

philosophical equity constructs. Simply asserting (or even demonstrating) that a given change will make people in aggregate better off in terms of some abstract index of welfare is not persuasive to those who do not accept (or understand) the standard of comparison. For changes to be accepted in a democratic system, enough people to constitute a supportive coalition must come to believe that the change will make them visibly better off in terms of their own values and beliefs. Reaching this goal is not easy.

Few people seem bothered by the fact that one store charges more for bread than another, but many appear to think that water should be the same price for everyone. Even if people accept not only that the real costs of providing services to different people are different but also that people may choose to have somewhat different levels of service or different degrees of access – and some do not -- when it comes to changing public prices the discussion often focuses on the distributional effects. The real reason for opposition may be different – workers may fear losing their jobs or homeowners may fear the value of their houses will fall – and the net impact of any distributive impact on inequality or poverty may be miniscule.[9] But demonstrating concern for, and providing solutions to, the perceived regressive effects of charging for public services may often be a necessary condition for successful reform.

Opposition to charges that originates from such concerns can be difficult to counter. Making payments more convenient, measuring costs and benefits carefully and making people aware of them, and - in cases where the distributive impact is sufficiently significant to warrant explicit attention - providing adequate compensatory offsets through direct transfers (e.g. adjustments in welfare payments and income-related tax credits) are familiar responses. Sometimes, such measures – to which few governments have paid sufficient attention in practice - may do the job. Still, getting a majority on board may be difficult. People tend to focus on clear and understandable truths: we all need water and to get to work on time; the public sector is supposed to serve all the public, not just those who can pay; and raising the direct cost of accessing any public service places a larger relative burden on the poor. They find it more difficult to understand that subsidizing services provides the greatest benefits to those who use

[9] Sometimes, however, adverse distributive effects are not only important but intended, as Heaman (2017) argues was the case with water pricing in the city of Montreal in the 19th century – a history that to this day continues to be reflected in the widespread resistance there to pricing water properly (Meloche and Vaillancourt 2017).

the most – who are seldom the poor - and that underpricing encourages more use, leads to increasing demands for still more service, and is a waste of scarce public resources.

Separating (unbundling) the financing issue as clearly as possible from the basic provision issue by subsidizing directly those in need who are adversely affected may help. Water, for example, may be considered by many to be a 'social' rather than an economic good. Nonetheless, it is critical to separate the structuring and financing of such 'social' characteristics as universal access and distributive and health concerns from the basic costs of setting up and running a good water system (Le Blanc 2007). Only when subsidies (whether for distributional or other reasons) are clearly distinguished from questions of basic financing can the provision of public utility services, including investment in infrastructure, be made transparently financially sustainable while still providing the right incentives to users, utility, and government. When subsidies are needed, they should go directly to those targeted, that is, specific consumers, and not offered to suppliers or to all consumers as is commonly (and usually ineffectively and inefficiently) done.

Such things are easy for economists to say and have often been said. But they are seldom easy to estimate precisely and even when good estimates can be made, in a policy context that seems increasingly to be influenced more by the instantaneous, strong, and simplistic opinions of the many than by the best reasoned (and hence generally complex and nuanced) conclusions of experts, those who believe they already know the answer are unlikely to be swayed. The line between nudging people to do the right thing in their own interest (Thaler 2015) and Machiavellian maneuvers intended to get them to go along with what someone else has decided is good for them (or perhaps simply for the 'nudger') is sometimes thin. To influence behavior (or sell ideas) requires governments to spend more time and effort understanding what the clients want than most governments can or want to do. Simply being fully transparent and open to public scrutiny (Sunstein 2014) is unlikely to be good enough. As studies of tax reform have shown, the line between idea and implementation is seldom short or straight (Lejour 2016). Gathering the evidence (preferably from credible independent research), getting the problem placed on the public agenda, devising solutions for the problems seen as relevant by those affected, then waiting till the time is ripe for reform – which may require a crisis[10] - and then

[10] For an example, see the impetus to better water pricing in Ontario after the Walkerton crisis (Kitchen 2017).

mustering sufficiently strong coalition support to get a change through and finally sequencing and bundling implementation so that it becomes a reinforcing rather than conflict-causing process usually takes a lot of time and effort. Sound reforms can seldom be accomplished quickly or easily.

Conclusion

The best chance to make better use of user charges is probably when, as now, new infrastructure investment moves close to the top of the political agenda. Only when something new is on the horizon can people perhaps see that they are, as it were, being asked to enter into a contract in the form of agreeing to pay for some new benefits that they can credibly see coming down the road.[11] So long as charging more means asking people to pay more for what they already get – or perhaps for services that are deteriorating as more users crowd in – the prospects for success are slim. Unless people think it is necessary for their own welfare to pay more for a service they want and need they are unlikely to support radical changes in the status quo. Those proposing changes need to be able to tell a sufficiently strong and convincing story that resonates with people's values, ideas, and interests.

Most people think they already pay too much to government. If they are to pay more they need to be convinced that they gain from doing so. They need to believe that they are paying for something that they not only need but want. Not only should all revenues from user charges go explicitly and strictly to providing the designated services but such payments should be transparently separated from any other payments to government agencies such as property taxes or such other charges as water and sewerage bills. [12] Prolonged, detailed, credible, and patient

[11] For a broader recent exploration of the 'contracting' approach in different fiscal contexts, see Bird and Slack (2014) on local governments in developing countries and Bird and Zolt (2015) on national governments in Canada and the United States.

[11] For a broader recent exploration of the 'contracting' approach in different fiscal contexts, see Bird and Slack (2014) on local governments in developing countries and Bird and Zolt (2015) on national governments in Canada and the United States.

[12] The appropriateness and effectiveness of earmarking has been much discussed (see Bird and Jun 2007), but this is one case in which it is clearly required. In contrast, Sheffrin (2013) and Slack and Bird (2014) discuss a recent case in Greece where an attempt to tack an increased property tax onto the utility bill led some people to stop paying both taxes and charges. Given Greece's recent history it is not surprising many Greeks could see little reason to pay anything more to government. Less dramatically, Jacobs and Matthews (2015) cite several U.S. studies showing that

interaction with those who are expected to pay is as essential as presenting clearly the costs and benefits to every group of alternative options and the trade-offs being made. Policy advocates must visibly and adequately respond to at least the more thoughtful criticisms they receive, and politicians must be prepared to carry the ball in public. None of this is easy or simple. But the effort may be worthwhile when the stakes are as high as they now are when it comes to how best to finance the substantial infrastructure investments now being discussed and planned.

The user charge system emerging from the invariably long and usually contentious political process just described may be far from any theoretical optimum. But even user charges that are at best halfway to perfection – for example, simply more rational parking charges and enforcement on city streets (Miller and Wilson 2015) instead of optimal congestion tolls – will usually be a better and more sustainable way to finance new urban infrastructure than funds obtained either from on high (federal grants) or from such apparently free revenue sources as those that some seem to think public-private partnerships (PPP) may offer (Siemiatycki 2017). In the end, users or taxpayers must always pay, and user charges (whether channeled through PPPs, governments, or utilities) are, whenever feasible, the best way to pay for new infrastructure. Some costs may be recouped from non-residents and future residents, and intergovernmental transfers and borrowing (directly or via PPPs) may be appropriate financing tools to cover such costs. At the end of the day, however, the most efficient and arguably the fairest way to maintain, renew, and expand public infrastructure is simply to charge users the right prices.

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people were most likely to reject policy initiatives not because they did not want the services to be financed and not because they were unalterably opposed to all new taxes and charges but rather because they simply did not believe that governments were likely to deliver the promised benefits.

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