TD Bank Financial Group

TD Economics

Special Report

January 23, 2009

MUCH ADO ABOUT INFRASTRUCTURE

The context

Canada is facing significant economic headwinds. The Canadian economy tilted into recession in the fourth quarter of last year, a full year after its main trading partner, the U.S. As a small open economy, worldwide economic developments will largely determine the depth and length of the current recession.

In response to what is largely a negative external shock to the economy, the Bank of Canada has been easing its policy interest rate aggressively, by a cumulative 3 ½ percentage points since December 2007. Now that this easing cycle is nearing its end with the policy rate at an all-time low of 1.00%, the baton is being passed to fiscal policy tools to help stimulate the economy, akin to a similar transition ongoing in the U.S. The stage is now set for the federal government to do its part in the January 27th Budget.

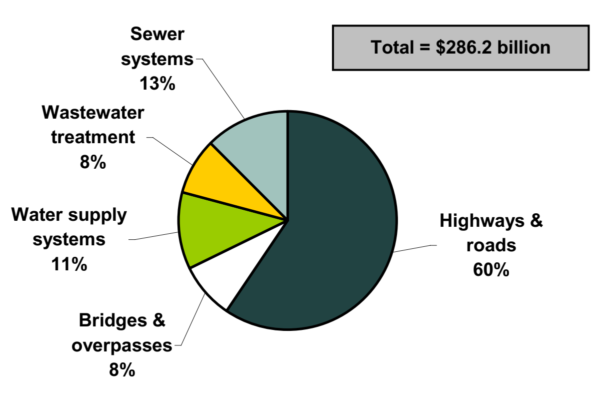
HIGHLIGHTS

- **In addition to other key measures, infrastructure is poised to receive top billing this year as federal and provincial governments aim to stimulate their economies.**
- **TD Economics supports infrastructure spending as a priority, noting that an increased concentration of worthy projects in 2009-10 will also stimulate an economy likely to run well below its potential until 2011.**
- **However, projects should clearly serve the long-term economic and environmental interests of the country. Large-scale investments will still be required for years to come to help rejuvenate neglected segments of infrastructure.**

Passing the torch

While there is clearly a counter-cyclical role for fiscal policy to play in leaning against these recessionary winds, it bears reminding that would take massive amounts of fiscal stimulus to substantially change the fate of the domestic economy. As a result, we argue that fiscal stimulus plans should avoid trying to craft temporary short-term measures, and instead focus on the longer-term. For a more detailed discussion, see our Dec. 22, 2008 "Recommended Elements of a January 27, 2009 Federal Budget", available on our website.

VALUE OF PUBLIC INFRASTRUCTURE, 2007



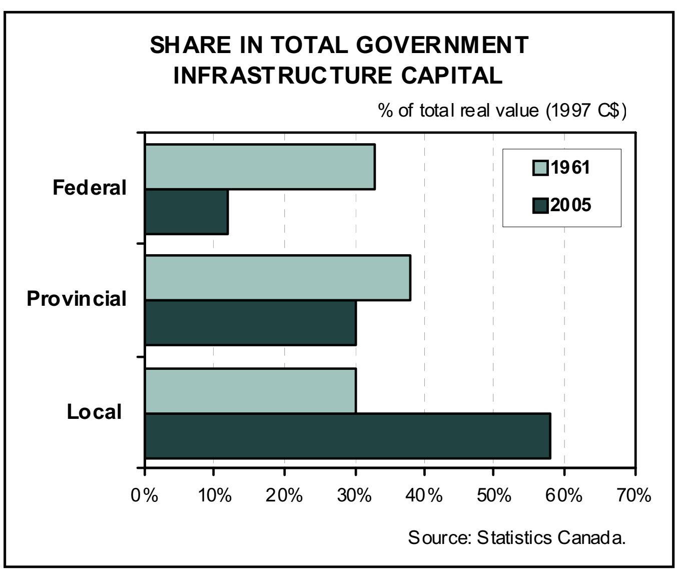
Source: Statistics Canada.

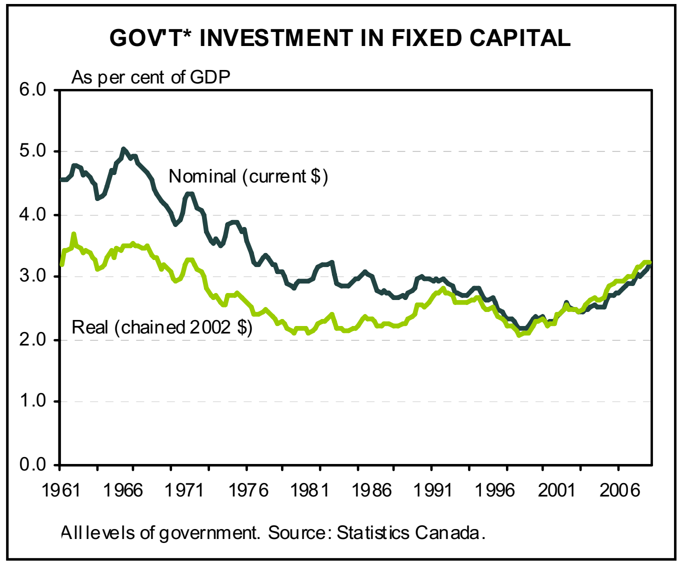
A stimulus for the future

In many respects, public infrastructure spending fits the bill, while at the same providing some near-term offset to expected weakness in private sector spending. Furthermore, domestic public spending offers more bang for the buck in stimulus terms in that it has less leakage than other forms of stimulus, such a cut in the GST. When a dollar of government revenue is foregone in the form of a sales tax cut, much of that goes towards spending on imported goods, assuming a consumption boost is actually achieved in the first place. Similarly, when a dollar is returned to a taxpayer in the form of income tax cuts, he or she can, and often does, save a portion. The recent experience in this regard provided by the U.S. tax rebate greatly weakens arguments to the effect that such measures are effective in providing significant stimulus to the economy. It has been estimated that U.S. consumers spent, on average, at most one-third of each tax dollar rebate, much of it helping to stimulate foreign economies – through purchases of consumer goods these countries export to the U.S. – rather than the domestic economy. Given the higher dependence of Canadian consumption on imported goods, such massive leakages are likely even higher for Canada.

On the other hand, a big strike against infrastructure as a short-term stimulus measure is how long it takes to put shovels into the ground. Funding arrangements take time. Through the Budget planning process, there has been a push to target funding on 'shovel ready' projects. But this must be balanced against the need to direct the funding in areas that provide the greatest long-term benefits. Care must be exercised not to rush into projects solely for the sake of short-term stimulus as in simply filling potholes.

On the plus side, many materials costs have declined substantially since last summer and the labour market is softening, freeing up resources to tackle new infrastructure projects at reasonable cost. Economists often refer to increased public investment as having a 'crowding out effect' when the economy is running at or above its potential. This elbowing out of private-sector investment and competition for scarce resources would be limited over the next two years as the economy muddles through one of its harshest recessions since the early 1980s.





More importantly, infrastructure spending can deliver longer-term benefits by improving Canada's productivity and competitiveness. There is little doubt that reliable and quality infrastructure is crucial to trade, productivity and economic growth. It is estimated that half of multifactor[1] productivity growth is attributable to public infrastructure capital. Over time, like gears on a bicycle determine riding speed, the rate of expansion of infrastructure capital tends to closely match trend growth in real GDP[2]. All said, it should come as no surprise that infrastructure investment is currently near the top of the agenda not only in Canada, but also in the U.S. and for policymakers around the globe.

Leaning against an aging infrastructure

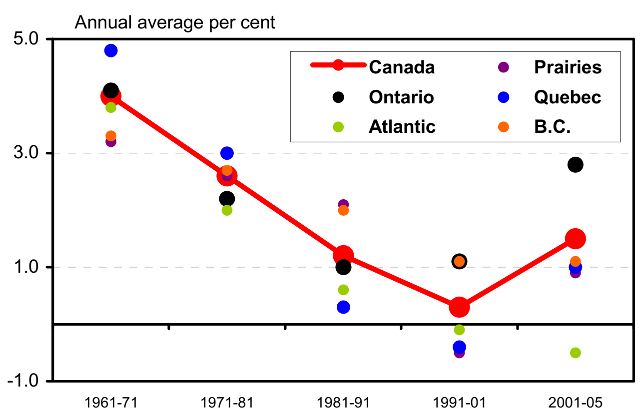
In our "Mind the Gap" report[3] dated May 2004, we reviewed estimates of the overall shortfall in public capital stock investment representing a backlog of deferred maintenance, rehabilitation, and replacement of assets. With all caveats kept in mind with respect to measuring an unobservable 'gap', these estimates were generally in the ballpark of $100 billion, with a large variance depending on exactly what is and what is not included. For example, it matters a great deal if one considers only an accumulation of past 'deficits', or if one also includes future needs. Also, which level(s) of government are being considered? Within jurisdictions, municipalities have, over the course of the last 40 years, become the most important providers of public infrastructure. Hence, much of the backlog now resides at the local level. In any case, the gap is massive and broadly-based across sectors and levels of government.

This is consistent with the observation that large portions of our public infrastructure – such as bridges, sewer systems, wastewater treatment, roads & highways – are nearing the end of their expected lifespan and need upgrading or replacing. A recent study by Statistics Canada[4] shows that from the early 1970s until 2001, the average age of the stock of public infrastructures was trending up steadily, from an average of below 15 years old to over 17 ½ years old at its peak in 2000. This gradual aging process was fairly broad-based on a regional basis as well as by asset types.

Progress report

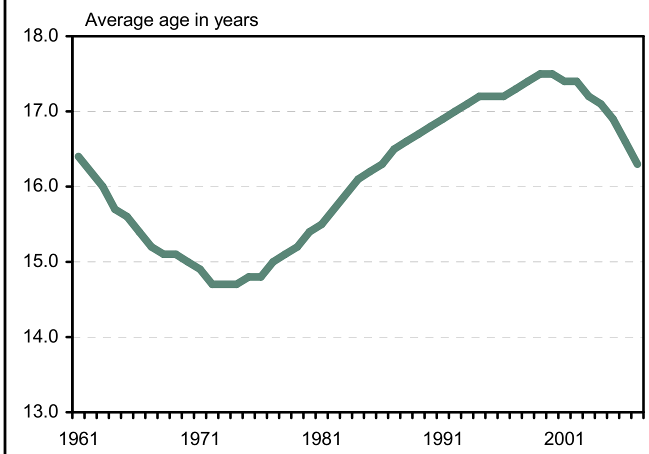
Since 2000, a rejuvenating trend has taken hold, fuelled by large investments in roads and highways, which make up nearly 60% of total assets considered in the aforementioned study. Over the last eight years, and more so since 2004, governments at all levels have indeed ramped up their infrastructure expenditures more than any time since the 1960s and 1970s to help slow down wear and tear.[5] It is often just a matter of whether these infrastructure investment flows are enough to keep the overall stock from aging and deteriorating. The record remains mixed on that front. Aside from roads, highways, and water supply systems, other infrastructure assets such as sewers, wastewater treatment, bridges and overpasses, have been aging relative to their useful life span since the early 1980s. What is clear is that government – all levels combined – infrastructure[6] investment has been ramped up significantly since 2004, with year-over-year growth in these investments averaging 14% (or 7% in real terms) since then. Although precise figures are hard to pin down, investments seem large enough to make sure the infrastructure gap has not widened since our 2004 report. Gleaning the National Balance Sheet Accounts (NBSA) for growth in government non-financial assets against the moving target of an otherwise growing infrastructure gap suggests this gap would not have grown in net terms, and might have shrunk a bit when compared to 2004 estimates.

GROWTH IN GOVERNMENT INFRASTRUCTURE CAPITAL



Source: Statistics Canada.

AGE OF PUBLIC INFRASTRUCTURE



Source: Statistics Canada.

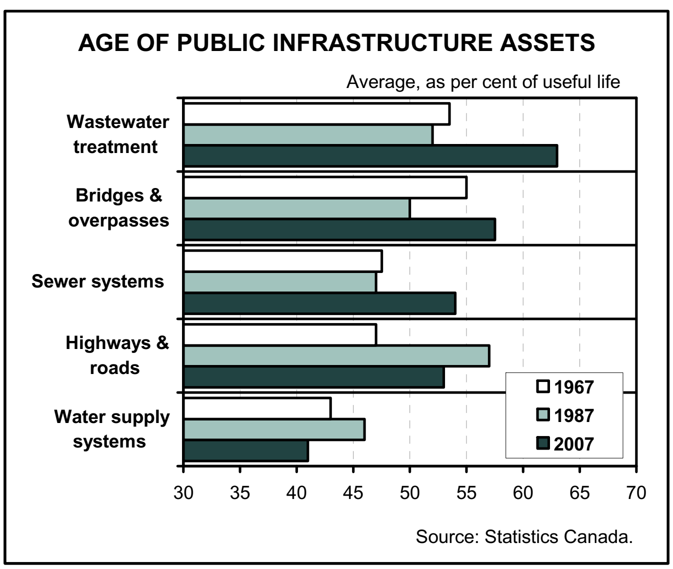
In continuing to take up this challenge to renew its infrastructure, Canada will be in good company, judging by developments in the U.S. for example, where infrastructure spending might increase by over $100 billion over 2009-10. In Canada, increased infrastructure investments would provide clear long-term benefits as would more leveraging of the expertise of the private sector in infrastructure development. Public-private partnerships (P3s) are constantly evolving while experience is being honed, in particular in Ontario, Québec, British Columbia and Alberta. The recent federal appointment of a Chair and a CEO to P3 Canada is also encouraging in this regard, and should help maintain a good momentum in developing Canada's P3 market.

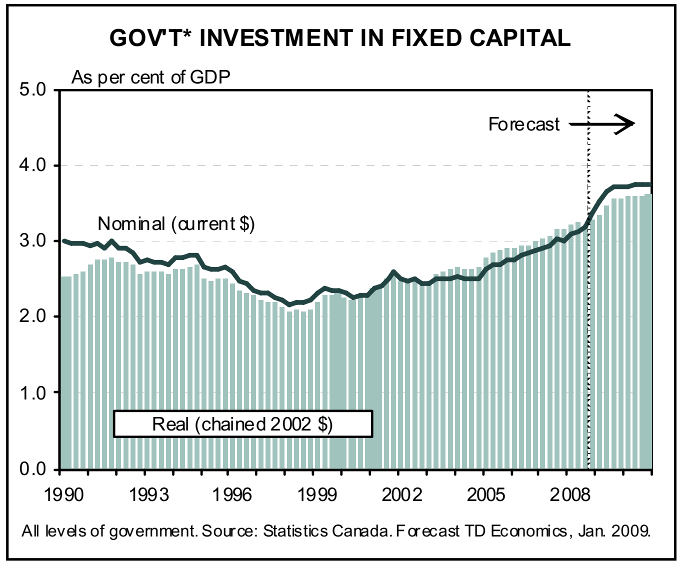
Currently, discussions between levels of government are being carried out in order to identify projects that can be advanced quickly and there has been some discussion about speeding up environmental assessments by applying simultaneous, rather than sequential, tests.

Keep the momentum going

Even more important that the jobs saved or created by new infrastructure investments this year and next is the fact that this year's Budget moves should help keep the longer-term momentum alive toward fixing Canada's ailing public infrastructure. At this stage, governments are still in the budget planning process, so it is difficult to say with precision how much will be allocated to infrastructure. What is clearer is that the federal government will take the lead as part of their 'Building Canada' plan, and provinces and municipalities will be involved in the effort through cost-sharing programs and initiatives of their own. The 'Building Canada' plan initiated in late 2007 was originally billed at $33 billion worth of federal investment over seven years, to 2014. Efforts will likely be made to front-load as much of this as is reasonable. $6 billion worth of transfers to provinces for infrastructure was already planned for 2009-10 in November. But the Budget will likely contain new projects and an enhancement of the federal medium-term plan. Additional federal funding towards infrastructure could reach $5-6 billion over the next 18-24 months. However, the jury is still out as to how much money can actually be injected in the near-term, in view of administrative and labour market bottlenecks. This would represent roughly one out of every seven dollars of a presumed total fiscal stimulus package worth around $34-40 billion over this time span. Some if it, as grants to provinces or municipalities, may be booked in the current fiscal year (FY 2008-09).

By itself, all of this is not enough to keep the Canadian economy as a whole growing, nor can it be. However, it could help offset much of the negative impact of the sizeable decline in homebuilding activity that is underway, keeping overall (residential and non-residential combined) construction activity from contracting too steeply. All governments combined, the share of infrastructure investment to





GDP will continue its recent upward trend.

Still, there remain many needs across the country. The bottom line remains that while precise figures of the infrastructure gap are disputable, the consensus is that massive investments are still required going forward. While roads and highways received lots of attention over the last decade, in particular in central Canada, other types of projects need to be expanded that had previously been neglected. Environmentally and economically beneficial projects like mass urban transit development should certainly top the list. A recent report[7] by Sustainable Prosperity outlines a framework to evaluate potential projects according to their economic and environmental returns. High on the list of favourable projects are things like public transit, wastewater treatment, clean energy infrastructure, public building retrofits, and polluted sites reclamation. Also, we think attention to areas such as education facilities would help strengthen Canada's workforce down the road. The infrastructure gap will not be closed overnight, but we take encouragement from the fact that continued strong investment is in the process of slowly but surely turning infrastructure from a Canadian disadvantage into a Canadian advantage.

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Endnotes

1 Multifactor productivity (MFP) is calculated as a residual after accounting for changes in private sector inputs (labour, capital). Explicitly incorporating the impact of public capital on business sector output suggests a contribution of a half to MFP growth, which averages 0.4% since 1961. Source: Gu, W. and MacDonald, R. “The impact of public infrastructure on Canadian multifactor productivity estimates”, The Canadian Productivity Review, Statistics Canada, January 2009.

2 MacDonald, R. “An examination of public capital’s role in production”, Economic Analysis Research Paper Series, Statistics Canada, April 2008.

3 Burleton, D. and Caranci, B. “Mind the gap: finding the money to upgrade Canada’s aging public infrastructure”, TD Economics, May 2004.

4 Gagnon, M., Gaudreault, V. and Overton, D. “Age of Public Infrastructure: A Provincial Perspective”, Analytical Paper, Statistics Canada, February 2008.

5 Roy, F. “From road to rinks: Government Spending on Infrastructure in Canada, 1961 to 2005", Canadian Economic Observer, Statistics Canada, September 2007.

6 Using government gross investment in non-residential structures (building and engineering) from the national accounts as a proxy for ‘infra-structure’.