

Financing Canada's Hospitals: Public Alternatives to P3s



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Summary

After decades of denial, governments at all levels concede that they face an urgent necessity to plan for funding the revitalization of virtually all forms of public infrastructure. Whether the subject is roads, public transit, affordable housing, sewer and water services, schools, colleges and universities, border crossings or health care and hospitals, the basic facts are similar.

We face a two-dimensional challenge in public infrastructure funding. We must renew infrastructure that was allowed to deteriorate through deferral of maintenance, especially during the decade following the 1991 economic recession. We are also challenged to finance future needs resulting from a number of factors, including changes in population, demography and income distribution, in part by more stringent environmental and public health standards, and in part by the capital intensity in the delivery of key public services.

Many governments are now claiming that the public sector's needs for capital investment have outgrown our ability to pay now and in the future. Using rhetoric that is reminiscent of the "There is no alternative" mantra of Margaret Thatcher's Britain in the 1980s, it is asserted – without a shred of proof – that the only way to meet our needs for infrastructure renewal is to develop public-private partnerships that will attract private capital to the financing of public infrastructure.

The facts do not support any of these assertions. Whether we look at infrastructure investment in general, or at hospital capital in particular, the evidence does not support the assertion that our needs have outrun our ability to pay. In Canada's relatively recent history, we have made investments in public capital greater than those that would be required both to meet current needs for capital investment and to address the backlog of unmet needs. The need for public capital has not increased. Rather, funding for public capital has dropped dramatically.

What has changed is that, over the years, hospital capital requirements have shifted from long-lived structures to machinery and equipment. That explains why the investment backlog accumulates so much more rapidly now than it did in the past, and why the backlog has such an immediate and obvious impact on care. It is one thing to delay renewal investment in a building that is operating beyond its useful economic life. It is quite another to delay replacement of rapidly evolving equipment.

The drop in funding is no mystery. The evidence points to domestically determined economic, structural and political factors that have contributed to under funding of public infrastructure.

With respect specifically to hospital capital, current needs are well within the range of investment relative to GDP in the 1960s. Furthermore, notwithstanding the federal-provincial issues, there is a precedent in the history of Canadian medicare for an active, ongoing and direct role for the Federal Government in funding for hospital capital requirements.

Given the nature of the problem we face, P3s have nothing to add. What P3s offer to governments is a range of mechanisms to alter the timing of payments or revenue flows from infrastructure projects. Normally, a P3 converts the initial cost associated with a project into a flow of payments over time. From a budgetary perspective, this means that governments can spread their accounting for major capital expenditures over an extended period of time, burying the financing costs in annual operating payments to the P3 operator.

The simple fact of engagement of the private sector in the financing of public infrastructure through P3s does not, in and of itself, give the government access to any “new” money. It delivers the same amount of private money as a conventional government bond would, but through a mechanism that alters the timing, for accounting purposes, of the government’s financial obligations.¹

This paper is not intended to be an analysis of specific P3 projects. There is a large and growing body of research documenting and highlighting the financial and public policy costs associated with P3 projects, in Canada and in other countries.

The purpose of this study is to analyze the policy story line that leads P3 proponents to their “there is no alternative to P3s” conclusion, and to evaluate the economics of P3s in general in light of that analysis. While the focus of this study is on financing of hospital capital, the paper’s conclusions concerning the underlying causes of Canada’s infrastructure financing problem and its evaluation of the relevance of P3s, given those conclusions, are general, and apply to the issue of public sector capital financing more generally.

The paper is in four sections. Section I reviews the factual history of Canadian public sector capital formation in general and hospital capital formation in particular, during the second half of the 20th Century. Section II identifies and evaluates the current political-economic obstacles to public capital investment in Canada. Section III looks at the role played by the Federal Government in hospital capital investment, particularly in the early years of the development of public medicare in Canada. Section IV presents a critical analysis of the economics of P3s in relation to those obstacles, and suggests alternative courses of action to address those obstacles specifically.

From this analysis, the paper argues that while Canada does indeed face an infrastructure-financing problem, the P3 public policy story both misrepresents the facts and mischaracterizes the underlying reasons for the shortfall. The infrastructure funding issue did not emerge abruptly in the 1990s; it is a problem of long standing, which became acute in the 1990s. Furthermore, the assertion that Canada has hit some kind of infrastructure funding wall is not supported by the facts. Instead, the evidence points to structural and political issues as the prime causal factors: federal/provincial/local fiscal imbalance; federal-provincial jurisdictional conflict; the emergence of budgetary balance as an overriding political issue; and the introduction of accounting rules which create a built-in bias against capital spending in a multi-jurisdictional system of government.

Consequently, P3s are shown to be not the one-and-only solution to a shortage of capital for public services that they are touted to be, but a rather expensive way around obstacles to direct capital investment that are either institutionally or politically self-imposed.

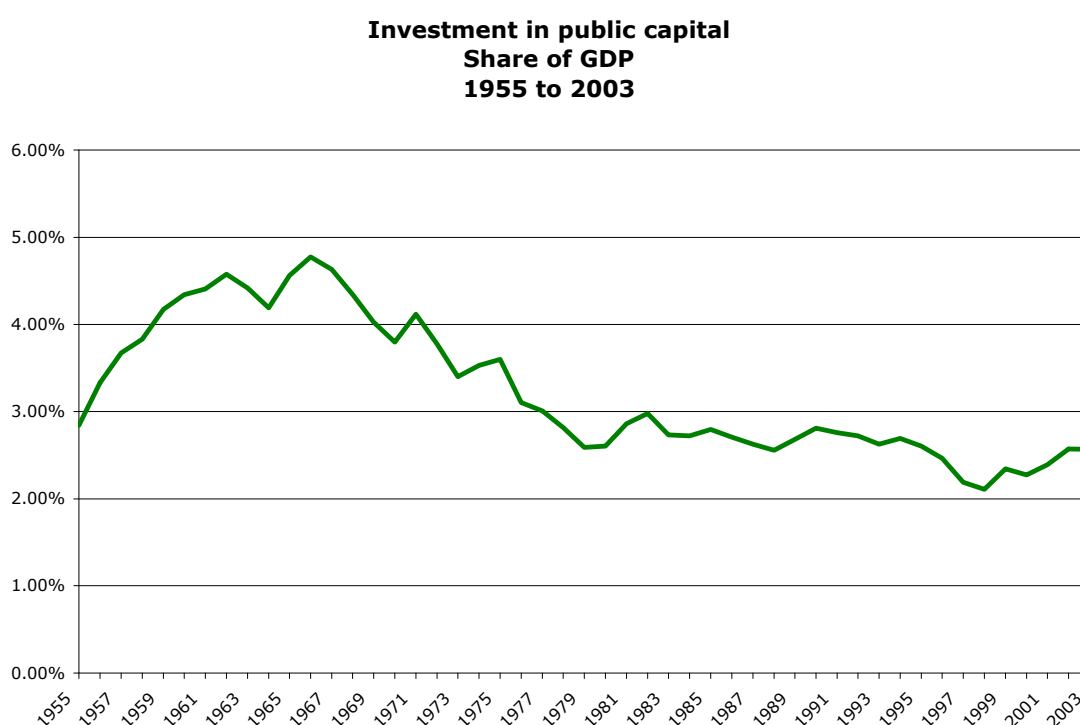
¹ P3s generate “new” money only to the extent that they can generate a revenue stream from a source other than the government that would not otherwise be available to the government. For example, a private hospital operator might be able to generate revenue by offering medical services for sale that are not covered by medicare. Similarly, it may be that Highway 407 was worth more to the successful bidder, 407 International, because it expected to be able to charge higher tolls to highway users than the government would be able to get away with politically. Far from supporting the argument for P3s as a source of “new” money, however, these examples highlight the broader public policy accountability issues raised by P3s. The fact that P3s can in principle be used as a way to employ public assets for purposes that the public would not support or to generate revenue at levels that the public would not support is hardly a justification for the concept.

Section I – Capital Investment Facts

Contrary to the accepted wisdom, the weakness of Canada's investment in public capital in general, and in hospital capital in particular, is a problem of long standing. In particular, it is not a phenomenon that emerged for the first time in the deficit-obsessed mid-1980s.

Statistics Canada data on capital stocks and investment flows in the public sector overall and in the hospital sector in particular make the point.

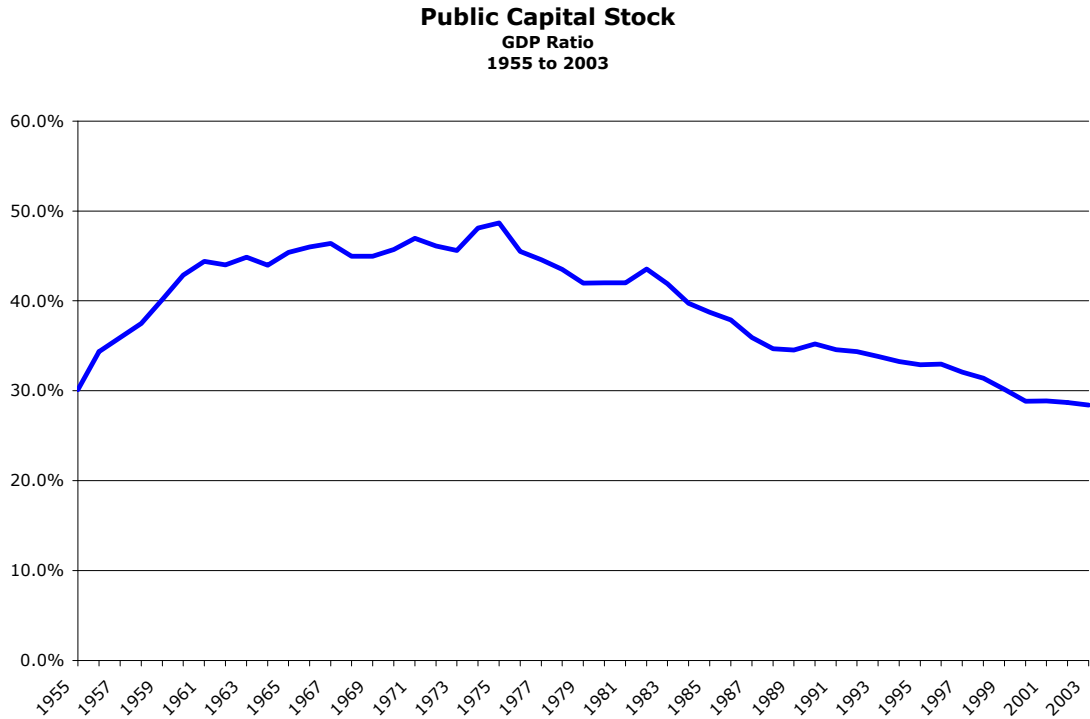
Chart 1



Investment in public capital as a share of GDP reached its peak in the late 1960s, reaching 4.78% of GDP in 1967. After the 1967 peak, public capital investment declined steadily as a share of GDP, with its most precipitate drop occurring in the 1970s. After a brief period of growth in the GDP share in the early 1980s (the result of countercyclical investment during the 1981 recession), public capital investment resumed its relative decline in the early 1980s, albeit at a lower rate. The recovery between 1999 and 2003 only brought the share back to the downward trend line after its abrupt drop between 1993 and 1999.

Chart 2 presents year-end capital stock, net of straight-line depreciation, as a percentage of GDP. Although public investment as a share of GDP began its decline in the mid-1960s, the share remained above historical averages for nearly a decade. As a result, the total public capital stock, relative to the size of the economy, continued to grow until 1975, peaking at nearly 50% of GDP.

Chart 2

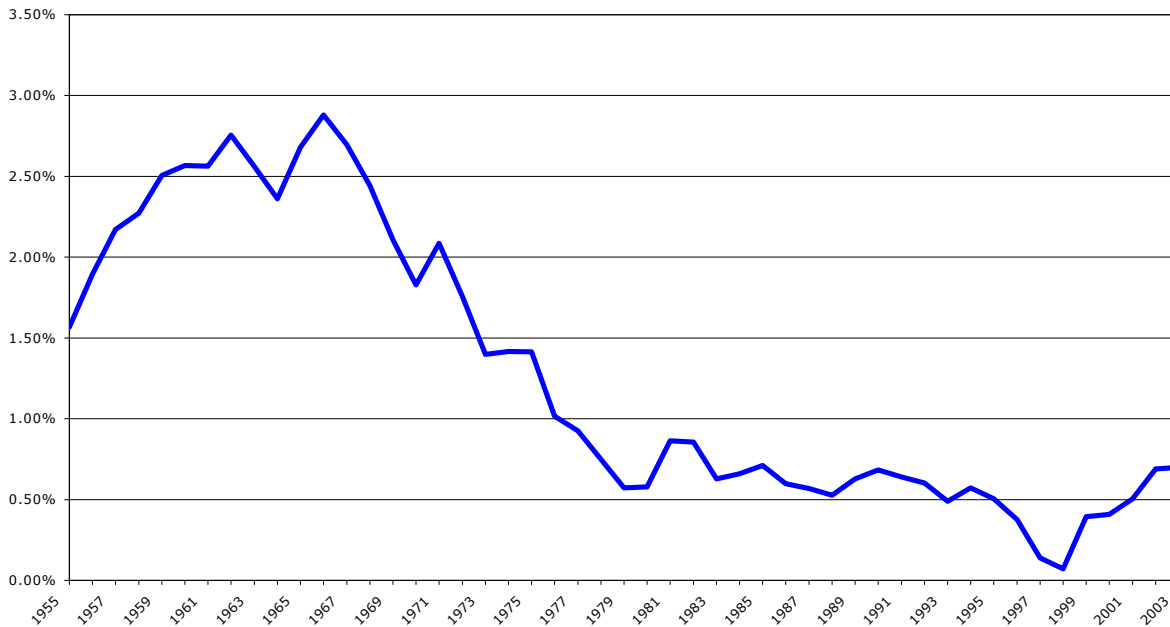


While annual investment is an appropriate measure of governments' financial commitment to public capital, it is not an accurate measure of net additions to public capital because it is a mixture of investments for renewal of pre-existing capital assets and new investments.

Chart 3 presents annual investment in public capital, net of depreciation of existing assets, as a share of GDP.

Chart 3

**Public Capital Investment Net of Depreciation
Share of GDP
1955 to 2003**



As this chart shows, additions to public capital declined rapidly as a share of GDP from the 2% to 3% range in the late 1960s and early 1970s to the 0.5% range after 1990.

While the percentages involved do not look large, the aggregate implications are substantial.

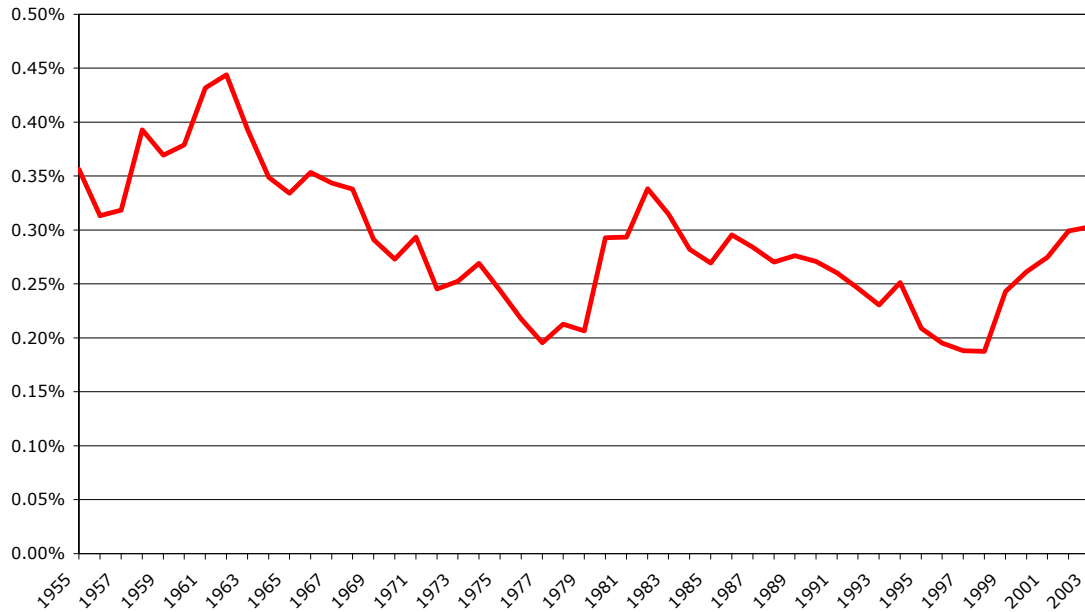
The difference between the 4.5% of GDP range that was typical of the 1960s and the 2.5% range that has become the norm in the late 1990s represents \$24 billion in missing annual investment in public capital.

The difference between a capital stock valued at 45% of GDP as would have been typical from the mid-1960s to the mid-1970s and the 30% figure we see today represents missing public capital with a current value of \$180 billion.

Capital investment in the hospital sector reached its peak earlier, and has not declined as rapidly as a share of GDP, but the general pattern is similar.

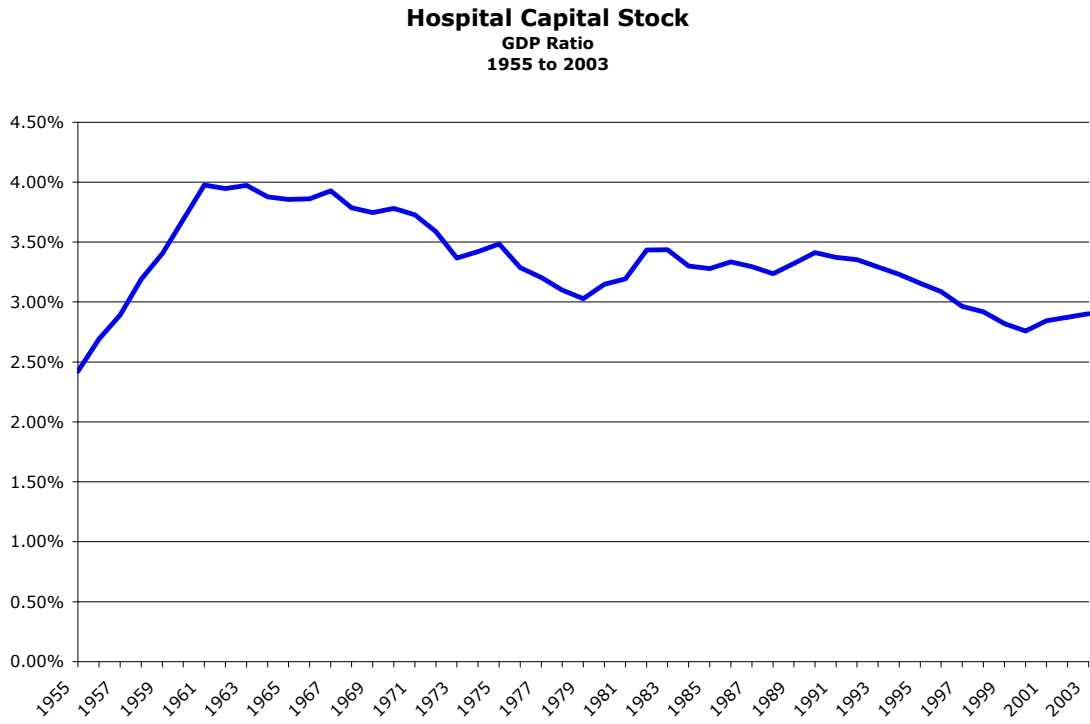
Chart 4

Investment in Hospitals
Share of GDP
1955 to 2003



As a share of GDP, the hospital capital stock expanded rapidly between the mid-1950s and the early 1960s, stabilizing just under 0.40% of GDP in the late 1960s. Since then, except for the recession-related jump in the early 1980s, the hospital capital stock declined steadily as a share of GDP from 1970 to 2000, recovering slightly after 2000 and now stands at about 0.30%. This 0.10% reduction represents approximately \$12 billion in hospital capital in current dollars.

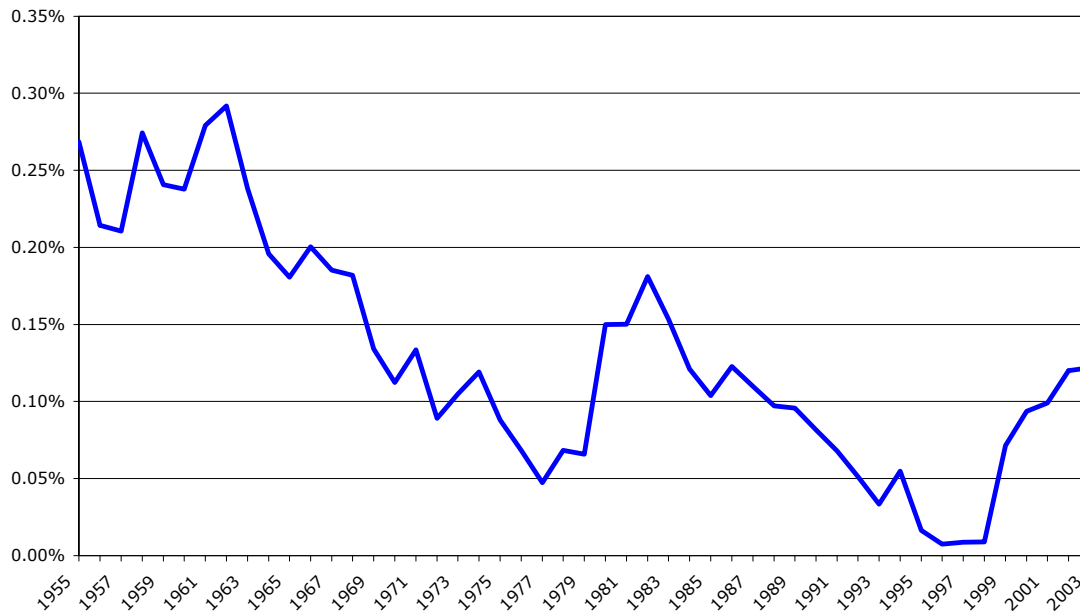
Chart 5



To round out the comparative picture, Chart 6 shows investment in the hospital sector, net of depreciation, as a share of GDP.

Chart 6

Investment in hospitals net of depreciation
Share of GDP
1955 to 2003



The two extended periods of decline from the 1960s to the late 1970s and again from the early 1980s to the late 1990s are obvious from these charts,

These data demonstrate clearly that the backlog of unmet needs for public capital and inadequate annual renewal and new capital investment that are so prominent in the news today did not emerge suddenly as a result of budget cutbacks in the 1990s. Rather, we have seen a consistent decline in annual investment in public capital over a 25-30 year period, followed with a lag by a decline in the relative size of the public capital stock.

The changes in hospital capital over the period are noteworthy in light of the fact that while hospital capital and investment have been declining over the past 30 years as a share of GDP, the size of the health care sector as a whole as a share of the economy has been growing.

Section II – Explaining the Change

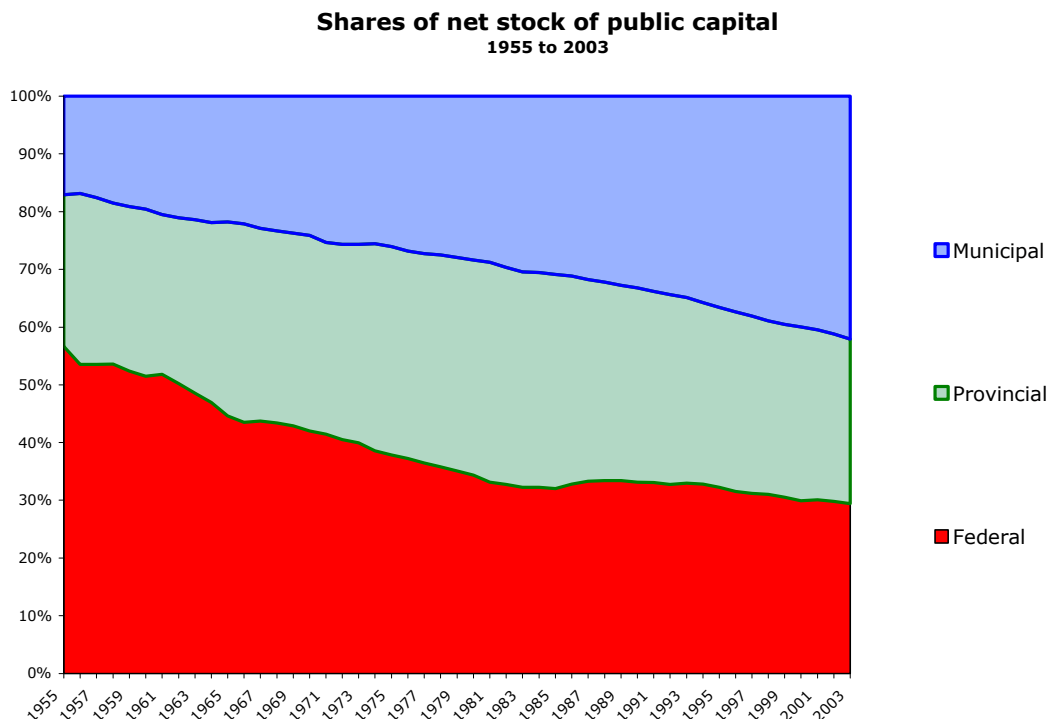
It is likely that some degree of decline in public investment relative to GDP was inevitable after the 1960s. Canada's public sector expanded rapidly in the 1960s, as the post-war population boom grew into maturity and the introduction of public medicare filled out the last major missing piece of the modern Canadian public economy. It is evident from the widespread concern about the state of our public capital stock, however, that the decline in measures of public capital relative to the size of the economy represents much more than a re-balancing from the rapid expansion of the 1960s and has left us with a public capital stock and levels of public investment below what is required in a modern economy.

Four key factors would appear to have interacted to produce an outcome that is now broadly believed to be irrational: growing fiscal imbalance among the three levels of government in Canada; the gradual withdrawal of the federal government from the financing of activities of other orders of government as the use of the federal spending power fell out of favour; the emergence of the deficit as an overriding political budget priority; and the application of private-sector modeled accounting rules to public sector budgets.

Fiscal imbalance

The issue of fiscal imbalance shows up clearly in the data on public capital investment and public sector capital stocks. Chart 7 shows the evolution of the share of the public sector capital stock owned by each of Canada's three orders of government between 1955 and 2003.

Chart 7



It reveals a remarkable pattern. In 1955, the Federal Government owned 57% of the Canadian public capital stock; the provinces owned 26%; local governments 17%. In 2003, the Federal Government and local governments had virtually reversed their positions. The Federal Government owned 30% of the stock; the provinces 29%; and municipalities 41%.

Capital investment showed a similar pattern.

In 1955, the Federal Government accounted for 34% of capital investment; by 2003 it had declined to 22%; the provincial share dropped from 39% to 26%; the municipal share increased from 27% to 52%.

A look at investment net of depreciation is even more revealing.

For most of the period since 1975, the Federal Government's investment has hovered around the level required to offset depreciation of its assets. Provincial governments' investment declined steadily until, in the 1990s, their total investment fell below that required to maintain their existing capital base.

Over that period, capital responsibilities shifted from the level of government with the largest and most growth-responsive revenue base to the level of government with the smallest and least growth-responsive revenue base.

Fiscal federalism and the use of the federal spending power

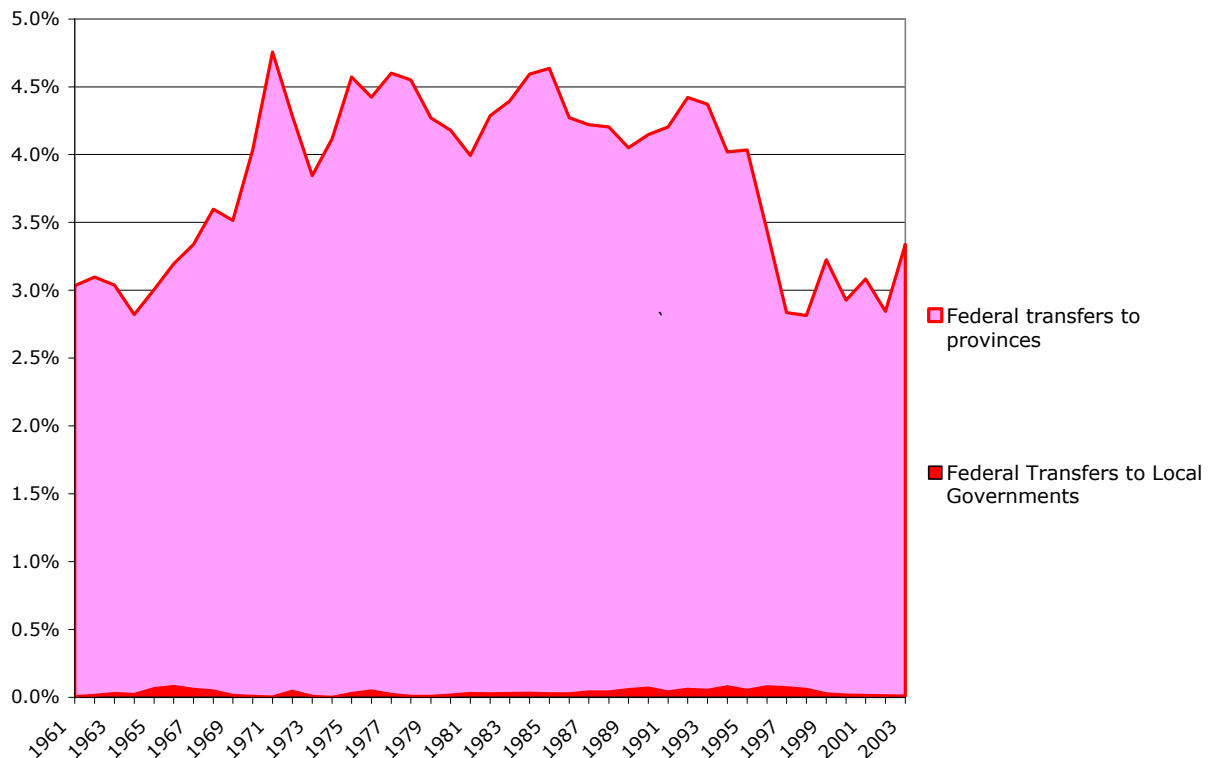
Had there been a corresponding increase in transfer payments from the federal government to provincial governments and municipalities and from provincial governments to municipalities, the fiscal imbalance would at least have been offset.

Over the nearly 35 years for which consistent data are available, however, that has not been the case.

Federal Government transfer payments to provincial and local governments increased from 3% of GDP at the beginning of the 1960s to a range of 4% to 4.5% during the 1970s and 1980s, and then dropped back to the early 1960s level in the late 1990s.

Chart 8

**Federal Government Transfers to
Provincial and Local Governments
1961 to 2003**



Local government transfer payment revenue (almost entirely from provincial governments) reached 4.2% of GDP in 1977, from a starting point of 2.1% in 1961. Transfers fluctuated around 4% of GDP, reaching a peak of 4.3% in 1992, and then dropping steadily to 3% by the end of the decade.

The evidence indicates that the shift in responsibility for public capital investment from senior governments to local governments has not been matched by corresponding increases in transfer payments. Instead, the evidence points to the federal government's overall fiscal strategy as the major driver of transfer payments.

Deficit politics

In Canada, it is always difficult to pinpoint a political sea change. With (now) 14 separate jurisdictions each operating in a different political context, even major changes tend to be diffused over time. The evolution of issues of fiscal balance from marginal relevance in the early 1970s, to centre stage in the mid-1980s, to an unquestioned part of the political background by the end of the 1990s took place gradually, and at different rates depending on the jurisdiction.

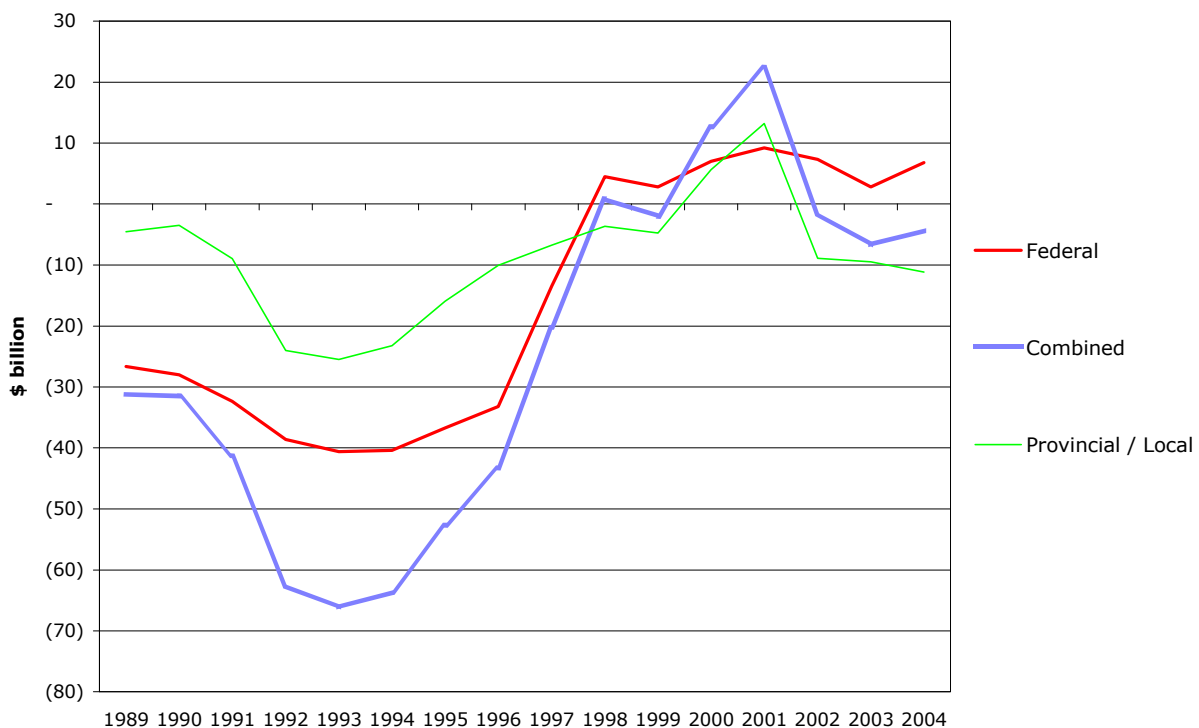
The earliest indications of change were the fiscal restraint initiatives implemented in the mid-to-late 1970s by both the federal and some provincial governments, most notably Ontario.

Deficit politics tightened its hold with the election of Ronald Reagan’s Republican Administration in the United States in 1980 and of Brian Mulroney’s Progressive Conservatives in 1984. Despite their identification with conservative politics and anti-deficit rhetoric, neither of these national governments actually made any inroads into the deficits they inherited. Indeed, in both the United States and Canada, it was left to “tax and spend” Democrats and Liberals to close the deal on the deficit issue and balance the national governments’ budgets.

Because of economic and political differences among provinces, provincial governments adopted deficit aversion as a fiscal strategy on different timetables and with varying degrees of actual commitment. But even with these differences, by the end of the economic expansion of the late 1990s, both the provincial / local sector and the federal government was in budgetary surplus.

Chart 9

Federal and Provincial / Local Budget Balances
Fiscal Years 1989 to 2004



Source: Statistics Canada CANSIM 385-0001

However, political aversion to deficit financing has its price. In its restructuring of transfer payment programs in the mid-1990s, the federal government made both intergovernmental transfers and its key countercyclical individual transfer program – unemployment insurance – less responsive to economic cycles. As a result, the task of fiscal stabilization was shifted from the federal government to the provinces. That shift is evident in the persistence of federal budgetary surpluses throughout the 2000 to 2003 economic slowdown, despite increases in health transfers, while provincial budgets moved back into deficit.

Now that deficit aversion has become an overriding political consideration, the use of fiscal policy for economic stabilization is, to say the least, out of favour. Because of the role that capital projects have traditionally played in government financed “pump-priming” programs in the past, infrastructure funding has suffered as a result. The diminished role of capital spending as a countercyclical measure is evident in the GDP share charts presented above. The 1981 recession was accompanied by a sharp up swing in capital spending as a share of GDP. The 1991 recession was not.

The politics of deficit aversion has had an independent impact on the financing of public capital, in two respects. First, because capital spending does not have “clients” who are immediately affected and therefore likely to object to funding cuts, reducing capital spending commitments and cutting back on routine maintenance of capital assets often serves as one of two favoured paths of least resistance when it comes to fiscal “restraint”. The other, as demonstrated above, is to cut transfer payments to other institutions.

Second, because capital spending, by its very nature, delivers benefits over an extended period of time, the traditional method for financing public capital has been through borrowing on capital markets. And in traditional approaches to accounting in the public sector, that contributed directly to fiscal deficits.

Accounting – the tail that wags the dog

Until the 1990s, public sector accounting in Canada was done entirely on a cash basis. Spending was accounted for in budgetary terms only when cash actually flowed. All expenditures – capital and current -- were accounted for in this way. Capital investment was included in the government’s books as spent, when the cash actually flowed to the project, treating it the same way as the salary paid to a government employee, the purchase of paper or the payment of rent on an office.

Historically, governments had used a variety of different mechanisms to spread the costs of capital investment out over a number of years, rather than accounting for those costs as current expenditures with obvious and highly visible implications for the government’s apparent fiscal position. Investment transactions were structured so they could be recorded “off book”, and therefore not included as expenses in budgetary balances.

The most common approach was to provide for capital investment through separate agencies. These agencies would borrow the funds needed to finance capital projects, recording the associated debt on their books. The government would provide annual subsidies to support the difference between debt servicing costs and revenue associated with the projects, and those subsidies would be recorded as annual expenses.

This kind of vehicle was particularly attractive for capital projects like sewer and water systems and toll roads and bridges, which generated an annual flow of funds from which debt service costs would be paid. Perhaps the most spectacular – if unintended – reflection of this approach to public sector financing took place in British Columbia in the late 1960s. Then-Premier W.A.C. Bennett celebrated the retirement of what he said was the last of BC's debt by attempting to shoot a flaming arrow into a raft piled with BC debentures.

It turned out that the debt that was retired did not include billions that had been borrowed by, and still sat on the books of, provincial government agencies.²

As accounting standards were tightened during the 1980s and into the 1990s, governments found it increasingly difficult to avoid being required by provincial auditors and Auditors General to consolidate the accounts of "arms length" agencies with general government accounts. A requirement to consolidate defeated the purpose, which was to enable the government to carry these obligations "off book".

The introduction of accrual accounting to the public sector in the 1990s, beginning at the federal level complicated the issue still further. The essential differences between accrual accounting and cash accounting for the purposes of this paper are that under accrual accounting: expenses are recorded when commitments are made whereas under cash accounting, expenses are recorded when cash actually flows; and capital assets are recorded as expenditures as they are consumed over time as depreciation rather than expensed in full when acquired.

At the federal level, and in most provinces, the switch to accrual methods of accounting for budgetary purposes has taken place in stages. In the first stage, current expenditures are presented on an accrual basis but capital expenditures are still accounted for as cash transactions. In the second stage, accrual accounting is extended to capital expenditures, with the costs of newly acquired capital assets amortized over their economic lives.

The introduction of accrual accounting for current expenditures generally results in a one-time-only increase in reported expenditures, as the backlog of committed but not yet funded expenditures is brought into the accounts. Other things equal, the change produces a one-time-only increase in the reported budgetary deficit. As a result, a move to accrual accounting is particularly attractive to newly-elected governments with a vested interest in making the transition year – attributable to the previous government – look as bad as possible and in showing progress in the fight against the inherited deficit in subsequent years.

A move to accrual accounting for capital is attractive for sitting governments in mid-term. In the first few years after a switch, accrued amortization costs associated with a constant annual investment program will be lower than the annual cash costs associated with that program.

² "Alberta sees debt-free future", Canadian Press, reported in the Globe and Mail, March 24, 2004, electronic edition --
www.globeandmail.com/servlet/story/RTGAM.20040324.walta0324/BNSStory/National/

This phenomenon provides the appearance of budgetary relief, enabling the government either to show progress in reducing the budgetary deficit or to increase spending on capital without adversely affecting the deficit bottom line.

It is important to note that the shift from cash to accrual accounting standards does not affect the actual cost of government. Rather, it affects the time period in which those costs are reported.

It is also important to note that a change to accrual accounting standards for capital spending should resolve the immediate expenditure impact problem that led to off-book accounting in the first place.

Accrual accounting for capital recognizes the fact that capital assets are not used up in the time period in which they are acquired; rather, the cost of acquiring assets is spread over the time period in which they are used. In effect, accrual accounting converts a lump sum outlay into a flow of payments over a period of time.

The problem for infrastructure funding in a multi-jurisdictional governmental structure like Canada is that under normal accrual accounting rules, only payments for assets owned by the government providing the funding can be amortized. Where the acquisition of the asset is funded from transfer payments, the agency providing the funding must account for the transfer as a cash payment.

The capital funding perfect storm – how these influences interact as an obstacle to capital spending

It would be difficult to design a context more likely to produce a shortfall in public capital investment than the current one.

We have an evolving federation, in which responsibilities for public capital have been shifting steadily from the federal level of government (with the most robust and flexible revenue system) to the local level of government (with the least flexible revenue system). Furthermore, much of the capital investment responsibility of provincial governments is exercised through agencies – universities, colleges, regional health authorities or hospitals and school boards – operating with varying degrees of independence from those governments but with limited access to revenue from sources other than transfer payments.

We have a political atmosphere that is hostile to the deficit financing that commonly provides the funding for capital investment, and that given governments powerful incentives to cut back on the transfer payments needed to compensate for the shift in responsibilities.

And we have a system of public accounting that effectively requires much of the funding for capital investment in Canada – the portion funded through transfer payments -- to be accounted for as if it were a current expense.

In the case of hospital capital funding, the federal government has the money; the provincial governments have the constitutional authority; and the actual capital spending is carried out by regional health authorities or hospitals.

Section III – Federal government involvement in hospital finance

When the Government of Canada announced capital funding for medical technologies in the 2000 budget, it was positioned as a key feature of the federal government's plan to use its renewed commitment to health care funding as a driver of change in the health care system. While the specific credibility of the program was undermined by highly publicized stories about the money being used to buy lawnmowers, it is difficult to argue with the numbers for hospital capital investment in the years immediately following the change.

Charts 4-6 above suggest that the increase in federal funding for health care generally and for health care capital in particular has had a direct impact on overall health capital investment.

What should be at issue, however, is the suggestion that direct federal involvement in hospital capital finance is novel. A review of the history of public medical care in Canada highlights the critical role played by federal capital financing in the early years of its development.

The early history of the development of medicare is a familiar one to Canadians, complete with federal-provincial conflict, interprovincial squabbling, failed attempts at building national consensus, federal government incentives and, ultimately, a successful federal political strategy.³

The Federal Government's interest in a national health care scheme had its origins in some rather oblique references to national health insurance in the 1939 report of the Royal Commission on Dominion-Provincial Relations (known as the Rowell-Sirois Report). That led to reports from a series of advisory and other committees, which culminated in an attempt to reach agreement with the provinces on a national program at the Dominion-Provincial Conference of 1945-46.

When that attempt failed, the Federal Government introduced legislation for National Health Grants, including a matching grant (with provincial governments) for hospital construction. The program was clearly seen not as an end in itself, but rather as a foot in the door towards the development of a national health insurance plan.

The next step, the introduction of a hospital insurance plan through the Hospital Insurance and Diagnostic Services Act of 1957, began as an effort to lever a provincial consensus. Although the Act was passed in 1957, it specified that it would not take effect until a majority of provinces making up a majority of Canada's population had agreed to participate. When Ontario and Quebec refused to participate, however, the legislation was amended to drop the condition and the program began in July 1, 1958 with only five provinces participating.

³ The history, although not my characterization of it, is drawn from two documents of the 1964 Royal Commission on Health Services:

The Report of the Royal Commission on Health Services, Queen's Printer, Ottawa, 1964, Volume I pp. 399-405; 410-417; and

E.J.Hanson, "The Public Finance Aspects of Health Services in Canada", Study Prepared for the Royal Commission, Queen's Printer, Ottawa, 1964, pp. 31-46

The decision to go ahead without the initial requirement put political pressure on the holdout provinces and that pressure along with the election of the LeSage government in Quebec in 1959 paved the way for general acceptance. By the end of 1961, all provinces and territories had joined the program.

Despite the creation of the hospital insurance program, the National Health Grant for hospital construction was continued until the early 1960s, while federal funding specifically for hospital construction continued until 1969.

The program provided matching grants (triggered by an equal provincial contribution) for hospital construction. Although the program appears to have been designed to provide specific allocations to each province, in practice it appears to have functioned as if it were open-ended.

Data published by the Canadian Tax Foundation⁴ in 1963 showed that of \$603.5 million allocated for the Health Grants program from inception to 13 March 1962, only \$443.8 million, or 73.5%, was actually taken up. Other than Newfoundland and the Territories, which took up less than 60% of their allocation, provincial take-up ranged from a low of 67% in Ontario to a high of 81% in Saskatchewan.

The amounts provided under the hospital construction portion of the grants program between 1948 and 1961 are as follows:

Table 1

National Health Grant Hospital Construction ⁵	
	\$ million
1948-9	2.2
1949-50	6.8
1950-1	6.9
1951-2	9.2
1952-3	10.5
1953-4	9.1
1954-5	9.5
1955-6	10.8
1956-7	11.4
1957-8	8.0
1958-9	16.8
1959-60	14.9
1960-1	17.6

The statistics on hospital capital investment and year-end capital stock underline the significance of federal funding for investment in hospital construction from its introduction in 1948 until federal funding was phased out in 1969.⁶

⁴ Canadian Tax Foundation, *The National Finances, 1962-63*, p.90 cited in Hanson, *op cit* p.44

⁵ Source: Royal Commission on Health Services, "Public Finance Aspects of Health Services", Hanson, E.J. 1964 Queen's Printer Table C-3 pp. 142-143

In Appendix 1, Table A1 presents published and unpublished data on investment in buildings and machinery and equipment for hospitals, from 1945 to 1976. As a share of GDP, hospital investment increased from 0.19% in 1945; stabilized at about double that share of GDP from 1949 to 1969, when federal capital funding for hospitals was phased out, and dropped back to its pre-program level after that.

That the federal National Health Grants and successor hospital capital grants programs succeeded is evident from the numbers. Despite federal-provincial differences that would not look out of place in the current environment, federal government leadership – and funding – paved the way for a national consensus in support of what has become our most important collective national undertaking. The impact of federal funding is underlined in the data on hospital capital investment in the late 1990s. Beginning with the September 2000 Federal-Provincial Health Accord, the Federal Government has undertaken substantial new investments in health care, including new funding directly targeted to capital investment and increases in funding for health care more generally.

Funding specifically directed towards capital investment included \$1 billion over two years announced in September 2000 and a further \$1.5 billion over three years, beginning in 2003-4, announced in the February 2003 Accord. In addition, the 2003 Accord allocated \$600 million for information technology and \$500 million for investment in research hospitals. That directly targeted funding, along with the overall financial relief provided by Federal CHST (now the CHT) increases announced at the same time, has had a direct impact on the hospital investment data.

Table 3 shows hospital sector capital investment, for buildings and for machinery and equipment as a share of GDP, from 1994 to 2003. The data illustrate both the decline in investment in the mid-to-late 1990s and the turn-of-the-century rebound.

Table 3

Hospital Investment
GDP Shares 1994 to 2003

	Structures	Machinery & Equipment
1994	0.15%	0.11%
1995	0.13%	0.09%
1996	0.11%	0.09%
1997	0.11%	0.09%
1998	0.09%	0.10%
1999	0.12%	0.14%
2000	0.14%	0.15%
2001	0.13%	0.15%
2002	0.17%	0.14%
2003	0.19%	0.13%

These trends illustrate clearly the power of the presence (or absence) of federal government funding for health capital.

⁶ Anne O.J. Crichton, "Canada's health care system: it's funding and organization", Canadian Hospital Association Press, 1994 p. 195

The weakness of the federal government's newly rediscovered commitment to funding for health care is that it clearly fails to recognize that funding for hospital capital is an on-going requirement of the health care system. Without exception, the capital commitments of the federal government in the two health accords have been funded from year-end budgetary surpluses. These commitments have not been integrated into the government's ongoing health care funding program.

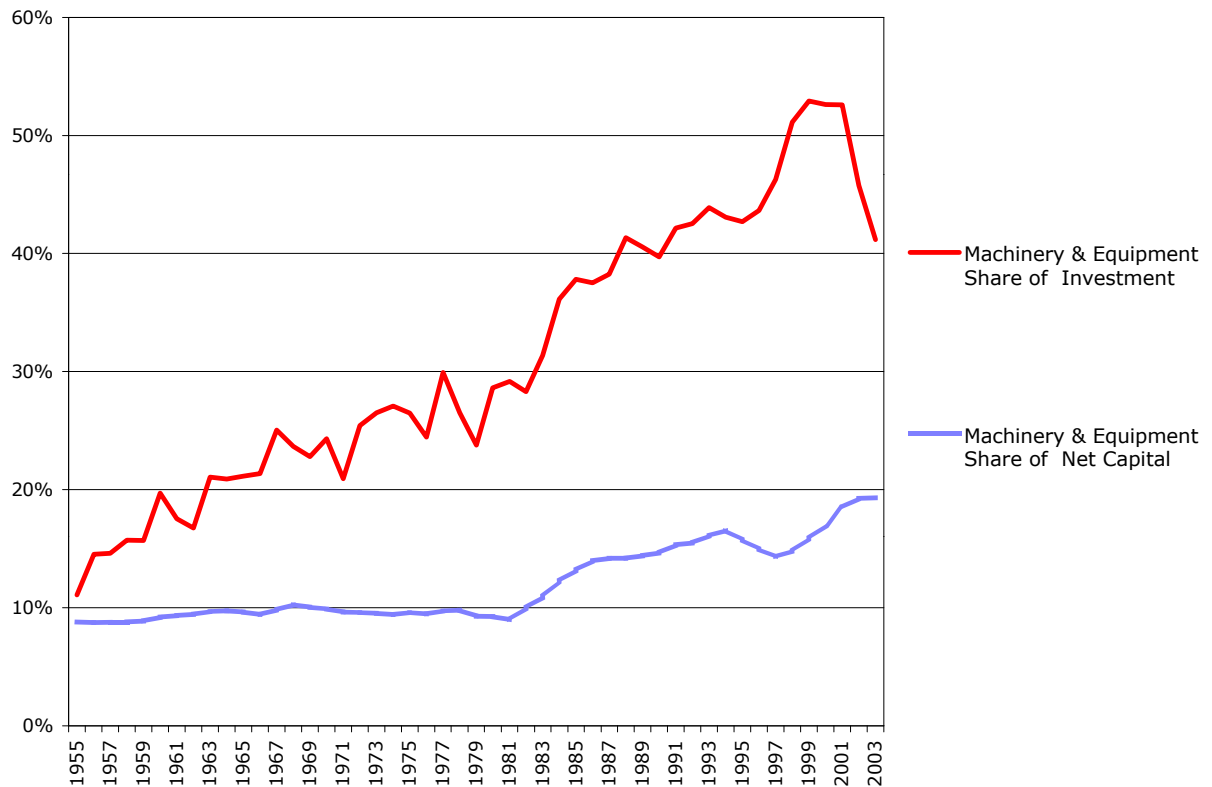
That is clearly not a reasonable foundation for the future. The investment capital needs of the health care sector are ongoing, as the population grows in numbers and advances in age. Moreover, the changing nature of capital stocks and flows in the hospital sector means that annual requirements for the renewal of the existing capital stock are relatively more significant than they were in the past.

Increases in health care funding in the first ministers' 2004 agreement can be an important contributor to restoring health sector capital, but the fact that much of the money directed towards capital continues to be drawn from surplus funds rather than ongoing base budgets makes that funding insecure. And the absence of either meaningful conditions or reporting requirements attached to the funding will make it difficult to track the actual impact of the funding increases on hospital investment.

Chart 10 shows the share of total hospital investment and capital stock represented by machinery and equipment from 1955 to 2003. Whereas in the 10-year period beginning in 1955, machinery and equipment represented 17% and 9% of the capital investment flow and year-end stock, respectively. In the ten-year period ending in 2003, machinery and equipment represented 47% of investment and made up 17% of the depreciated capital stock.

Chart 10

Share of Machinery & Equipment in Hospital Investment Flows and Capital Stocks 1955 to 2003



As a result, year-to-year investment to offset asset depreciation has become a much more important component of hospital capital requirements. Using the depreciation assumptions behind the Statistics Canada data as a guide, the anticipated useful life of hospital physical structures has been relatively stable over the years at about 43 years, the anticipated useful life of machinery and equipment has dropped from 13 years to 11 years. Taken together, these trends mean that regular reinvestment to maintain the current capital stock has become much more important.

This explains why a growing proportion of total investment in the hospital sector represents investments required to maintain the current capital stock. In the decade beginning in 1955, depreciation was equivalent to 38% of annual investment. In the decade ending in 2003, depreciation was equivalent to 68% of annual investment.

It also explains why the investment backlog accumulates so much more rapidly now than it did in the past, and why the backlog has such an immediate and obvious impact on care. It is one thing to delay renewal investment in a building that is operating beyond its useful economic life. It is quite another to delay replacement of rapidly evolving equipment.

The implications for hospital funding are obvious. Funding for hospital capital through ad-hoc one-off programs and community fundraising is based on a perception of hospital capital requirements that is out of step with reality. It may work for the funding of physical structures -- although even there such an approach is inconsistent with rational planning of health care investments. It does not work for equipment.

Rapidly-evolving technology and the need to renew assets with relatively short economic lives means that capital investment is an every-year activity.

If the federal government is going to continue to be involved directly in the funding of health care, capital funding must be included, not on an ad-hoc 'spend out of surplus if you have the money' basis but as an integrated part of the core funding program.

If the federal government is not prepared to provide funding for capital on that basis, provincial governments must provide for capital investment at a consistent level, regardless of the federal role.

Section IV – Overcoming obstacles to public investment: P3s and the alternatives

Obstacles to rational funding of hospital capital investment – reality and illusion

In the current debate about funding for public infrastructure in general and for hospital capital in particular, the tendency has been to leap straight from a characterization of current problems to a specific solution, in the absence of a systematic analysis of the underlying causes of the problems.

The analysis above suggests that rational planning and funding for hospital capital is hampered by three key factors:

- Federal-provincial fiscal imbalance;
- A preoccupation in both federal and provincial governments with short-term fiscal issues that builds in a practical political bias against long-term investments; and
- A system of accounting for public capital spending that reinforces a budgetary bias against public capital investment in general, and against the use of transfer payments to fund public capital in particular.

The analysis also sheds some light on what the underlying cause of our capital problem is *not*. The data do not support the oft-heard assertion that our needs for public capital have grown beyond our ability to pay. The data show that in our relatively recent history, Canada's overall financial commitment to public capital—including our commitment to hospital capital – was substantially higher as a share of GDP than it is today. While years of underinvestment have created an overhang of substantial unmet needs, reinvestment at levels consistent with historical precedent would be enough to draw down the backlog over a reasonable period of time.

Indeed, in the hospital sector, the levels of investment projected for 2003 have already taken us substantially back towards the long-run average investment in the sector after years of virtual standstill. Relatively modest increases in current levels of hospital investment would, if sustained, put capital renewal in the hospital sector on a solid footing.

The need is not for funding from outside the public sector. The need is for approaches to capital funding that overcome the current obstacles to a renewal of public funding.

P3s – a solution in search of a problem

Public Private Partnerships have emerged in recent years as the all purpose solution to our public capital financing needs. P3s have been created to finance hospitals, bridges, highways and schools in most jurisdictions in Canada.

Many of these projects have generated considerable public controversy, both because of the financial terms demanded by P3 operators and because of notable performance failures. Despite that record, however, P3 projects continue to be touted as the “solution” to the shortage of funding for public capital. This section takes a critical look at this basic claim for P3s.

The Public Private Partnerships Office (Industry Canada) sets out seven major functions of P3s: financing, design, building, operation and maintenance, leaseback, transfer and ownership.

In light of these functions, the fundamental question is “what do P3s bring to the table, for public capital, that other forms of public sector engagement with the private sector do not?”

Private sector involvement in the financing of public infrastructure is not unusual, nor is it unique to P3s. All public debt financing involves the sale of debt instruments – usually government bonds – to private holders of capital. The market for securities issued by governments at all levels in Canada is extremely well developed, and there is no suggestion that the market for such securities is exhausted.

Private sector involvement in the design of public infrastructure is common. Indeed, it is the exception rather than the rule for government agencies to do their own design work “in-house”.

Private sector involvement in the building of public infrastructure is also the rule, rather than the exception. Most construction work on public infrastructure projects is performed, under contract, by private enterprises.

Private sector enterprises are also routinely involved on a contract basis in the operation and maintenance of public facilities. It is called contracting out or privatization.

What P3s offer to governments is a range of mechanisms to alter the timing of payments or revenue flows from infrastructure projects. Normally, a P3 converts the initial cost associated with a project into a flow of payments over time.

From a budgetary perspective, this means that governments can spread their accounting for major capital expenditures over an extended period of time, burying the financing costs in annual operating payments to the P3 operator.

Occasionally, the P3 concept is used in reverse, to convert a flow of future revenue into a current lump sum by capitalizing the future revenue flow from a project into the sale price of the asset. The most notable example of this approach was the sale in 1999 by the Government of Ontario of its Highway 407 toll highway. By selling the asset, together with the right to future toll revenue, the government was able to generate sufficient revenue to avoid a budgetary deficit.

The simple fact of engagement of the private sector in the financing of public infrastructure through P3s does not, in and of itself, give the government access to any “new” money. It delivers the same amount of private money as a conventional government bond would, but through a mechanism that alters the timing, for accounting purposes, of the government’s financial obligations.⁷

⁷ P3s generate “new” money only to the extent that they can generate a revenue stream from a source other than the government that would not otherwise be available to the government. For example, a private hospital operator might be able to generate

From an economic perspective, the key questions are: how much does it cost to use P3s as a way to overcome these obstacles?; and are there alternative approaches to capital finance that are less costly and avoid the problem of loss of public policy control and accountability that is inherent in the P3 concept?

The economics of P3s

In essence, a P3 is a mechanism for borrowing money for public capital projects. Reducing what are often extremely complex transactions to their essentials, the government is paying a P3 to borrow money on its behalf in return for a flow of payments and/or other rights in the future that will be sufficient to enable the P3 to repay the debt and realize a profit on the transaction.

Even without considering the questions of ownership, control and profit, P3s are an expensive way for governments to borrow money. Because of the assurances government can provide to lenders with respect to repayment, governments are able to borrow at substantially lower rates of interest than private corporations.

The difference between the borrowing rate for a P3 and the rate for government represents the premium demanded by lenders to offset the risk of default. It also constitutes the first-level incremental cost of using P3s as a financing vehicle for public infrastructure.

Because these financing vehicles typically cover relatively long time periods, the difference in borrowing costs can be quite substantial for apparently minor differences in interest rates.

The spread in yield (effective interest rate) between high-grade corporate bonds and government bonds with the same maturity ranges between 0.5% and 1.5% depending on the maturity of the bond and the borrowing government.

For example, for bonds maturing in 2029, the 20 July 2004 market yield was 6.56% for Bell Canada, 5.72% for the Government of Ontario and 5.23% for the Government of Canada. For shorter-term borrowing, the market yield was 4.61% for Bell Canada, 4.44% for Ontario and 4.11% for Canada.⁸

For long-term borrowing, that suggests a cost penalty associated with borrowing through a P3 of approximately 1.25%.

revenue by offering medical services for sale that are not covered by medicare. Similarly, it may be that Highway 407 was worth more to the successful bidder, 407 International, because it expected to be able to charge higher tolls to highway users than the government would be able to get away with politically. Far from supporting the argument for P3s as a source of "new" money, however, these examples highlight the broader public policy accountability issues raised by P3s. The fact that P3s can in principle be used as a way to employ public assets for purposes that the public would not support or to generate revenue at levels that the public would not support is hardly a justification for the concept.

⁸ Globe and Mail, Report on Business, market charts, 25 July 2004.

For a loan with a 40-year term, a 1.25% interest rate premium would add a total of \$50 million to the total cost of servicing a \$100 million debt. At an assumed Government of Canada long-term bond rate of 5%, this translates to a cost increase over the life of the investment of 17%. The present value of the additional cost, discounted at the 5% Canada long-term interest rate, would be \$21 million. This means that, valued in today's discounted dollars, a government would pay a premium of \$21 million to borrow \$100 million – an additional cost of 21%.⁹

The borrowing cost differential alone makes the P3 an expensive way for governments to borrow money. But from the perspective of the institutions that are putting up money, P3s are considered to be in a class similar to venture investments – investments that are expected to generate returns substantially in excess of corporate long-term borrowing rates, and that give rise to substantial investment management fees that add another layer of cost to the transaction.

For example, in a June 2004 news story, the CEO of the Ontario Municipal Employees' Retirement System was quoted as indicating that OMERS expected returns on its P3 investments to be in the 10% range.¹⁰

That means that, rather than borrowing costs in the 6% range for corporate bonds, P3s are expected to generate revenue sufficient to provide a substantially higher return. The P3 revenue required to generate this return is a total of \$166 million higher, over the life of the project, than the cost of direct government borrowing. That's higher by nearly 52%. The present value of the difference is \$63 million. In other words, in present value terms, we would be paying \$166 million to borrow \$100 million as opposed to the government bond alternative, which costs \$100 million in present value terms.

That additional funding has to come from somewhere: from government, in the form of higher annual payments; from users of the public service produced by the P3 in the form of user fees; or from the sale of private services produced using the P3 assets. The only way P3s can be bringing new money to the table is either through levying higher user fees (which the government could also do) or through the private sale of services produced using the formerly public assets (which effectively creates a two-tier system for the services produced by the P3).

It is clear from even this simple analysis that P3s are a very expensive way for governments to borrow money, both in cash and in policy control. Borrowing costs will inevitably be higher, and depending on the nature of the arrangement, P3 service delivery can result in the loss of government influence over the cost of the service to users and/or over the policy framework in which the service is delivered.

⁹ The relative impacts are sensitive to both the discount rate used and the size of the interest rate differential. Using a discount rate higher than the long-term government bond rate would produce higher estimates of the relative cost disadvantage associated with borrowing through P3s. A lower borrowing cost differential results in a lower estimate of the P3 cost disadvantage. For example, with a differential of .75%, total servicing costs over the life of the investment increase by 9% and the net present value of the debt servicing costs increases by 11%.

¹⁰ James Daw, "OMERS chief mulls new investment model", Business, Money Talk, Toronto Star, 12 June 2004

What governments get from P3s is a mechanism that enables them to spread the cost of acquisition of a capital asset over an extended period of time, and avoids the need to charge large lump-sum costs against their current budgets. To put it differently, P3s do not give governments access to new money that they could not obtain in any other way. P3s give governments access to money on terms that avoid the budgetary and political problems associated with direct, up-front borrowing. Through P3s, governments are able to incur debts that do not appear on their books, and whose servicing costs are spread out over time and buried in the fees paid to the P3 operator.

As the analysis in the previous section suggests, by changing the form of public capital investment and altering the terms and timing of the costs incurred by government for that investment, P3s address real problems – albeit at a significant cost.

Alternatives to P3s

To be viable as an alternative to investing in public capital through P3s, alternative capital funding mechanisms need to address the political and accounting obstacles to public capital spending.

Two general approaches suggest themselves. One is to design alternative mechanisms that will permit governments to spread budgetary costs associated with capital investment over time – to craft a solution within the constraints of the current approach to accounting for capital. The other is to redesign our system for accounting for public capital to accommodate the realities of a multi-jurisdictional government structure that relies heavily on inter-jurisdictional transfers for capital funding.

Budgetary cost timing mechanisms

The introduction of full accrual accounting for capital investment is an important development that will sweep away the budgetary timing obstacles to capital investment for government investments on their own accounts. While the debt associated with the purchase of a capital asset by a government for its own use will appear on the books as part of the public debt, the investment itself will be amortized over the expected working life of the asset, rather than being accounted for as a lump-sum cost in the year in which the asset was acquired.

The Federal Government and a number of provincial governments are already using this method of accounting for their own direct capital investments, and these standards are gradually being rolled out through the broader public sector.

The problem with this system of accounting arises from the fact that when the government agency providing the funding is not the owner of the associated asset, the agency making the payment cannot amortize its cost – it must account for the payment as a current expense. This is common where funding involves transfer payments between orders of government or between governments and arms-length agencies.

For example, if the Federal Government acquires a hospital for its own purposes – a veterans' hospital, for example – for budgetary purposes the cost can be amortized over the life of the facility. If the Federal Government instead transfers exactly the same amount of money to a provincial government, to pay for a hospital, the entire cash transfer is accounted for as a current expense.

There are three general ways around this issue: change the accounting relationship between the government and the transfer payment recipient; convert the lump sum cash transfer into an annual payment equal to the cost of carrying the debt; or use capital lease-back arrangements so that the government that provides the cash is able to amortize the cost of the asset.

1. Changing the accounting relationship

In this approach, the financial statements of the transfer payment recipient agency are consolidated with those of the transferring government. This change effectively makes the capital investments of the transfer payment recipient into capital investments of the government that provides the transfer payment funding.

As announced in its 2004 Budget, the Government of Ontario is planning to take this approach in accounting for community colleges and hospitals, and is considering its adoption for other agencies under its constitutional jurisdiction.

This approach is subject to significant limitations. Consolidation of accounts can only be used in situations in which the agency to be consolidated meets criteria that amount to full control by the consolidating government. For example, because elected trustees technically control school boards in Ontario, it is unlikely that the government would be able to consolidate school board operations into its own. It is also obviously not applicable to financial relationships between the federal government and provinces or between provinces and municipal governments.

2. Funding debt servicing costs

In this approach, transfer payment agencies receive annual payments equal to the cost of servicing debts incurred for capital projects. From the perspective of the transfer recipient, the transfer payment is equivalent to the annual budgetary cost of the investment. From the perspective of the agency providing the funding, the annual budgetary cost is equivalent to the amount it would show as a budgetary cost if it owned the asset itself.

The Ontario Government in its 2004-5 funding for school boards has adopted this approach. Rather than make capital grants to school boards for school renewal investments, the government has announced a commitment of \$200 million per year for debt servicing costs, which it estimates will support a total renewal investment of \$200 million.

The drawback to this approach is that, because it is the transfer payment agency that is responsible for actually borrowing the funds, the cost of borrowing will be that agency's cost rather than that of the government providing the funds. Depending on the nature of the guarantees provided to lenders, the cost of borrowing might exceed that of the funding government.

3. Restructuring the transaction using lease-back arrangements

Lease arrangements are a common mechanism used in the private sector to manage debt loads and to shift capital consumption allowances for tax purposes from entities for which they generate a reduced value or no value at all to entities for which they can generate a higher value.

For example, an industrial corporation with a lower tax rate or losses that can be carried forward or limited access to capital through conventional means will sell an asset to a financial institution and then lease it back. As the owner of the asset, the industrial corporation receives a reduced benefit from the depreciation allowances generated by the asset, either because it has no taxable income against which to offset the allowances or because it benefits from a preferential tax rate. Transferring the asset to a financial institution enables the financial institution to use depreciation allowances generated by the asset to reduce its taxable income. A sharing of the gain between the borrower and the lender will be implicit in the terms of the lease.

Applying this approach by analogy to intergovernmental transfer relationships in Canada, one might envisage a series of federal-provincial partnerships, each of which would acquire assets for public agencies in the province's jurisdiction. The partnership would own the assets and lease them back to the recipient agencies. Cost sharing could be accommodated by varying the partnership shares, and by tailoring the lease costs so that they reflect the transfer payment recipient's share of the cost, if any.

In effect, in each province a federal-provincial agency would become a kind of investment bank for public agencies in the province. Using separate partnerships would make it easier to make the arrangements flexible in response to the situations in individual provinces.

Each government's partnership share would be consolidated with its general budget. As the legal owner of the assets, each government could amortize its share of the acquisition cost over its useful life.

Borrowing costs would be minimized, because the funds to acquire the assets would be borrowed under the federal government's credit conditions, which are the most favourable of all government borrowing terms in Canada.

Changing the way we account for capital

The way private sector accounting rules deal with capital spending makes sense – for the private for-profit sector. Capital assets contribute to the operating costs of the enterprise through the expensing of economic depreciation. That is to be offset by the stream of income generated, directly or indirectly, by the asset. Decisions with respect to the acquisition of assets are based on their expected return relative to a target rate of return that takes into account the cost of capital. The actual cost of acquisition of assets is met from cash flow, or from the capital of the enterprise.

By including economic depreciation as a cost in calculating the rate of return on the assets, the enterprise provides for the replacement of the asset at the end of its economic life.

The economics of the public sector are quite different. To begin with, because the benefits generated by the public sector are generally not traded in the market, they are generally valued at their cost. When the timing of the expense and benefit coincide, the consequence of this convention is that the production of the public service does not generate a profit. When capital assets are concerned, however, we have a problem.

It is possible to mimic the private sector model at the decision making stage, by estimating the value of the benefits that will flow from an investment and comparing that with target rate of return that reflects social considerations. The process is generally labeled cost-benefit analysis and, either implicitly or explicitly most governments go through a process like it in determining whether or not to proceed with an investment. Unfortunately, the private sector analogy breaks down as soon as the investment is actually made.

In the private sector model, the investor enterprise receives the flow of benefits generated by the investment as operating income which can be offset against depreciation and generate a return on the capital used to make the investment.

In the public sector, the investor government generally does not receive a flow of benefits in the form of operating income. The benefits may flow to the government indirectly, in the form of reduced operating costs, but that doesn't show up in the government's books because public services are valued at cost, so reduced operating costs by definition cannot generate a net income. The benefits may flow directly to the public, in the form of improved service, thus justifying the investment, but the investor government does not capture those benefits. In general, the only way the government can determine whether or not an investment was a good idea is to do an analysis after the fact that is similar to the cost-benefit analysis that preceded the decision.

From a budgetary perspective, under current accounting rules, none of this is appropriately captured. Investment simply results in an increase in cost.

Adding transfer payments into the mix simply compounds the confusion. The concept of a transfer payment makes no sense in the private sector analogy. Technically, it would probably be seen as a payment from one entity to another for no consideration in exchange – essentially a charitable contribution or a gift. As with the general accounting issues discussed above, this does not pose a particular problem when the payment is destined for current expenditures because it reflects a current transaction for both the government making the transfer and the agency receiving the transfer payment. When the purpose of the transfer is to fund capital investment, however, the parallel breaks down. The payment is a current expense to the government making the transfer. For the transfer recipient, the use of the funds is a capital expenditure.

The fundamental problem is that the method used in private sector accounting to integrate investment costs with income and expense statements doesn't make sense in a government context in which much of the benefit derived from government investment activity does not accrue to the government in cash.

It would make more sense to recognize this problem explicitly, and account for capital and current balances separately, linking them through the net costs of replacing the current capital stock and servicing the debts incurred to finance new investments.

This approach would enhance accountability by permitting observers to make a distinction between the operating and capital sides of the government's accounts. Financial viability in the capital account would be based on the depreciated value of the assets held by the government relative to the debt incurred to acquire those assets and the ability of the government to service the associated debts. This would also permit the status of the operating accounts to be assessed without mixing capital with current expenditures, and debts incurred for the purpose of acquiring assets with debts incurred as a result of deficits in the operating budget.

Transfer payments could be accounted for in the capital budget or the operating budget, depending on the purpose of the transfer.

P3s and government debt

In the discussion above, the size of the public debt has deliberately not been addressed as an independent consideration. With respect to the issue of the treatment of transfers between orders of government, the only issue with respect to debt concerns which level of government shows the debt on its books.

With respect to P3s, it is becoming clear that whatever assistance P3s and other mechanisms may offer government budget makers in spreading investment costs out over time, those mechanisms will not affect what shows up on the government's books as public debt. In a recent report, the International Monetary Fund concludes that in order to assess fairly the financial obligations of governments, the capitalized value of future payments to P3 operators should be counted as part of the government's debt.¹¹

The issue of the accounting treatment of governments' obligations to P3 operators has emerged specifically with respect to the United Kingdom. In the IMF report referred to above, the following footnoted comment appears:

One criticism of U.K. accounting and reporting practice is that the future service payments under PFI [Public Finance Initiative] contracts amount to an explicit off-balance-sheet liability totaling £100 billion which has significant implications for future borrowing or taxes (see, for example, *The Times*, July 7, 2003). It has therefore been suggested by some financial market observers that these liabilities should be disclosed as such, rather than as a stream of future payments.¹²

Whatever P3s may offer to governments in the way of repositioning capital spending from an accounting perspective, they are unlikely to continue to be available as a way of disguising public debt obligations.

¹¹ International Monetary Fund, "Public-Private Partnerships", Fiscal Affairs Department, IMF (In consultation with other departments, the World Bank, and the Inter-American Development Bank), Approved by Teresa Ter-Minassian March 12, 2004.

¹² IMF p. 39 footnote 64

Conclusion

1. Under funding of infrastructure in Canada is not a crisis of the 1990s; it has been developing over nearly three decades.
2. The oft-repeated claim that our needs for infrastructure investment have outstripped our ability to pay is simply not true; the levels of investment required to meet current needs and draw down the infrastructure investment backlog are well within the range, as a share of our economy, that was typical in the 1960s and 1970s.
3. Direct federal government involvement in the financing of infrastructure is not a novelty. The federal government maintained direct involvement in hospital capital funding for more than 20 years between the late 1940s and the early 1970s.
4. Three key factors have contributed materially to our infrastructure funding problems:
 - a. Fiscal imbalance: over the past 50 years, responsibility for public capital investment has gradually shifted from the federal and provincial governments to local governments – to the order of government with the least flexible and responsive revenue base;
 - b. Transfer payments from the federal government to provincial governments, and from provincial governments to municipalities have not increased to offset the shift in responsibilities; in fact, increased local government responsibility for capital investment has been accompanied by a reduction in provincial transfers as a share of GDP.
 - c. The budgetary deficit has become an overriding political consideration throughout Canada, putting extreme downward pressure both on regular maintenance of the existing capital stock and on budget allocations for new capital investment.
 - d. New standards have complicated accounting for capital investment where responsibility is shared among multiple jurisdictions; accrual accounting increases the budgetary cost of transfer payment funding for capital investment relative to direct capital investment.
5. While P3s respond to the deficit and accounting dimensions of the infrastructure-funding problem by creating vehicles that permit costs to be spread out over time, they do so at a substantially higher cost than conventional financing methods.
6. Changes in international accounting standards driven by the International Monetary Fund are likely to level the playing field between conventional financing and P3s still further by requiring obligations for future payments to P3 operators to be shown as liabilities on the books of governments.
7. Other viable options for spreading transfer payment capital investment costs over time include:
 - a. Consolidating transfer payment agency accounts into senior government budgets (as is under consideration for hospitals and community colleges in Ontario);
 - b. Funding annual investment carrying costs of transfer payment agencies (as has been proposed for school boards in the 2004-5 Ontario General Legislative Grants for elementary and secondary education; and
 - c. Establishing agencies that would acquire and lease back capital assets for transfer payment agencies.

Recommendations

General

1. Consistent, reliable and stable funding of capital investment in the hospital sector is an important element in overall funding for public medicare.
2. An annual investment rate of 0.4% of GDP – less than the peak in the 1960s but approximately 1/3 higher than the average in the past 20 years – would provide sufficient funding to address current needs and to draw down the backlog of unmet needs. Such an investment rate would result in a current annual investment of \$5 billion and would permit the current investment backlog to be eliminated over a 5-to-7 year period.
3. Accounting standards should be modified to account appropriately for funding of capital investment through intergovernmental and inter-agency transfers.

Federal Government

4. Given the degree of fiscal imbalance between the federal government and other governments that has emerged in Canada over the past 40 years, the federal government should fund a national health care capital investment program, in partnership with the provinces and on terms acceptable to both orders of government.
5. The current approach to private sector involvement in funding infrastructure through P3s should be abandoned in favour of other financing approaches which accomplish the same goals as P3s at conventional long-term government borrowing costs.
6. The federal government should establish a national public capital formation agency, whose function would be to deliver support for hospital and other infrastructure investments to provincial governments and agencies.
7. Such an agency could deliver support through transfers directly to hospitals and other agencies, or indirectly, through provincial governments.
8. To facilitate indirect transfers, the federal government should establish a series of federal-provincial infrastructure financing corporations (one for each province and territory) to be responsible for delivering Federal and provincial infrastructure funding assistance to agencies under provincial jurisdiction and local governments.
 - a. Each corporation would be jointly owned by the Federal government and the respective provincial government.
 - b. Terms of operation of these corporations would be as negotiated with individual provinces.
9. Financial assistance would be delivered in one of two ways:
 - a. Payments to agencies for debt servicing costs and amortization associated with infrastructure development; or

- b. Direct infrastructure financing by the federal-provincial corporations with lease-backs to provincial and agencies and local governments. Using this approach, the infrastructure corporations would acquire the assets, and lease them back to the using agencies on terms that replicate the desired cost sharing arrangement.
10. Regardless of the form of support, financing for infrastructure under such arrangements should be guaranteed by the Government of Canada to ensure the most favourable borrowing costs.

Provincial governments

11. In the absence of a formal federal program, provincial governments must commit to consistent, reliable and stable programs for capital investment in the hospital sector at the provincial level.
12. The same fiscal imbalance analysis that leads to the conclusion that the federal government should be involved in funding all public investment, including that of the hospital sector, leads to the conclusion that it is not appropriate to expect local governments and communities to pick up the public investment shortfall.
13. The current approach to private sector involvement in funding infrastructure through P3s should be abandoned in favour of other financing approaches which accomplish the same goals as P3s at conventional long-term government borrowing costs.
14. Where appropriate, the finances of provincial transfer payment agencies should be consolidated into their respective provincial budgets. This would reduce borrowing costs, enable infrastructure acquisition costs supported by the provincial government to be amortized over asset lives, and improve accountability.
15. In the absence of a formal role for the federal government in infrastructure funding, provincial and territorial infrastructure financing corporations should be established to support hospital and other infrastructure financing in each province.
16. Delivery could take one of three forms, as appropriate:
- a. Direct transfers for capital expenditures, accounted for on a basis that would permit the amortization by the province of its share of the expenditure;
 - b. Transfers of annual servicing and amortization costs for transfer for infrastructure investment and associated debt, equivalent to the provincial share of the investment cost; or
 - c. Direct infrastructure financing by the corporation with lease-backs to agencies. Using this approach, the infrastructure corporations would acquire the assets, and lease them back to the using agencies on terms that replicate the desired cost sharing arrangement.
17. Regardless of the form of support, financing for infrastructure on behalf of provincial agencies, municipal governments and school boards should be guaranteed by the respective provincial government, to ensure the most favourable borrowing costs.

Appendix 1 – Hospital investment and capital stock, historical data

Table A1
Investment and capital stock, hospitals, total and components, 1945 to 1975

	Investment			Year-end net stock			GNE	% of GNE -- investment		
	Buildings	Equipment	Total	Buildings	Equipment	Total		Buildings	Equipment	Total
1945	18.9	3.4	22.3	184.1	12.5	196.6	11,863	0.16%	0.03%	0.19%
1946	23.8	4.5	28.3	210.2	14.7	225.0	11,885	0.20%	0.04%	0.24%
1947	27.0	6.1	33.1	253.4	20.2	273.5	13,473	0.20%	0.05%	0.25%
1948	44.0	11.6	55.6	318.9	30.3	349.1	15,509	0.28%	0.07%	0.36%
1949	61.3	10.1	71.4	384.7	38.1	422.7	16,800	0.36%	0.06%	0.43%
1950	62.3	10.7	73.0	448.2	46.5	494.8	18,491	0.34%	0.06%	0.39%
1951	65.5	13.5	79.0	546.3	59.0	605.3	21,640	0.30%	0.06%	0.37%
1952	81.4	11.9	93.3	630.1	63.4	693.5	24,588	0.33%	0.05%	0.38%
1953	103.1	15.2	118.3	720.9	71.8	792.7	25,833	0.40%	0.06%	0.46%
1954	106.4	15.2	121.6	790.6	79.4	870.0	25,918	0.41%	0.06%	0.47%
1955	130.0	16.2	146.2	906.4	87.4	993.8	28,528	0.46%	0.06%	0.51%
1956	110.0	18.7	128.7	1008.9	96.5	1105.4	32,058	0.34%	0.06%	0.40%
1957	111.7	19.1	130.8	1084.2	104.3	1188.5	33,513	0.33%	0.06%	0.39%
1958	136.1	25.4	161.5	1196.8	115.3	1312.1	34,777	0.39%	0.07%	0.46%
1959	128.1	23.8	151.9	1276.2	124.3	1400.5	36,846	0.35%	0.06%	0.41%
1960	125.2	30.7	155.9	1377.8	139.6	1517.4	38,359	0.33%	0.08%	0.41%
1961	146.6	31.2	177.8	1484.4	152.6	1637.0	39,646	0.37%	0.08%	0.45%
1962	165.0	33.2	198.2	1595.4	166.3	1761.7	42,927	0.38%	0.08%	0.46%
1963	148.8	39.7	188.5	1721.1	184.3	1905.4	45,978	0.32%	0.09%	0.41%
1964	145.0	38.3	183.3	1839.1	198.3	2037.4	50,280	0.29%	0.08%	0.36%
1965	152.5	40.9	193.4	2018.1	215.1	2233.2	55,364	0.28%	0.07%	0.35%
1966	180.1	48.9	229.0	2266.2	235.3	2501.5	61,828	0.29%	0.08%	0.37%
1967	179.5	60.0	239.5	2469.4	268.8	2738.2	66,409	0.27%	0.09%	0.36%
1968	196.4	60.8	257.2	2586.5	295.4	2881.9	72,586	0.27%	0.08%	0.35%
1969	188.3	55.6	243.9	2824.9	315.2	3140.1	79,815	0.24%	0.07%	0.31%
1970	186.4	59.8	246.2	3071.9	337.1	3409.0	85,685	0.22%	0.07%	0.29%
1971	228.2	60.4	288.6	3315.8	353.0	3668.8	94,450	0.24%	0.06%	0.31%
1972	201.2	68.6	269.8	3564.0	377.8	3941.8	105,234	0.19%	0.07%	0.26%
1973	239.2	86.3	325.5	3929.0	413.3	4342.3	123,560	0.19%	0.07%	0.26%
1974	302.1	112.2	414.3	4772.1	495.0	5267.1	147,528	0.20%	0.08%	0.28%
1975	311.5	112.2	423.7	5468.7	580.0	6048.7	165,343	0.19%	0.07%	0.26%
1976	328.3	106.2	434.5	5950.3	623.0	6573.3	191,031	0.17%	0.06%	0.23%

Sources: Hospital Capital
 1955 to 1976 -- Statistics Canada CANSIM Table 031-0002
 1945 to 1955 -- Statistics Canada unpublished data
 GNE -- Statistics Canada Historical Statistics National Accounts Table F32

