An Independent Study Funded by

RESIDENTIAL AND
CIVIL
CONSTRUCTION
ALLIANCE OF
ONTARIO

RCCAO

Constructing Ontario's Future

Towards a Fair **and** Balanced Approach

A Commentary on Government Procurement of Construction in the GTHA

Towards a Fair and Balanced Approach

A Commentary on Government Procurement of Construction in the GTHA

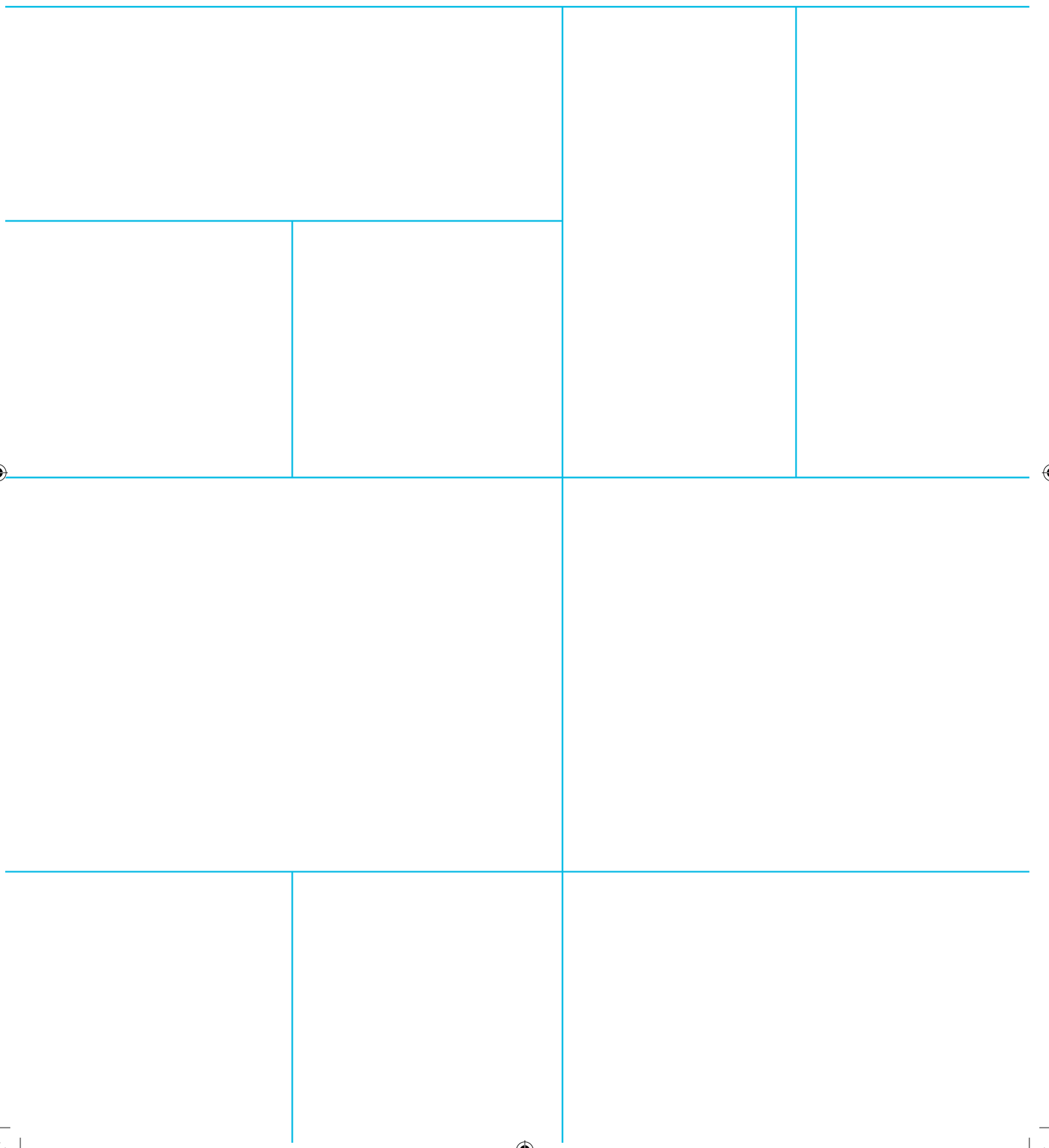
Report Prepared for the Residential and Civil Construction Alliance of Ontario by Purchasing Consultants International Inc.

Stephen W. Bauld

September 2009

The Residential and Civil Construction Alliance of Ontario (RCCAO) is an alliance composed of management and labour groups that represent all facets of the construction industry. Its stakeholders stem from residential and civil sectors of the construction industry, creating a unified voice. The RCCAO's goal is to work in cooperation with governments and related stakeholders to offer realistic solutions to a variety of challenges facing the construction industry. For more information please visit www.rccao.com

Table of Contents



Executive Summary

The Greater Toronto-Hamilton Area (GTHA) could be saving more than $131 million per year, concludes Stephen W. Bauld, president of Purchasing Consultants International Inc., one of Canada's leading experts in the public procurement field.

On an annual basis, approximately $2.6 billion is spent on construction by federal, provincial and municipal governments, their respective boards and agencies, as well as school boards, universities, community colleges and hospitals in the GTHA. Using a conservative estimate, Governments could save as much as five per cent of their capital cost by adopting better contract terms and practices.

In this report, prepared for the Residential and Civil Construction Alliance of Ontario, Bauld discusses the extent to which the purchasing policies, rules and common contract documents employed by Governments across Southern Ontario are deterring more top quality construction contractors and other suppliers from bidding for Government work. It offers guidance as to how Governments may protect their underlying interest, without adopting such a range of practices so detrimental to effective competition.

Too often, public sector buyers have no understanding of the factors that influence the prices charged by private sector entities. Governments are experts in the design and delivery of public programs and services. They are not attuned to the kinds of consideration that will influence a commercial decision as to whether to bid for a contract, nor do they understand the pricing implications that are implicit in various contracting options. At the same time, many private sectors firms bidding for Government work are not fluent in the manner in which Government purchasing decisions are made, nor the types of concern to which Government is subject as a customer.

The Report discusses, for instance, how Governments have sought to transfer to their suppliers all risk relating to matters outside the control of Government. It notes that many of the risks concerned are as much outside the control of the contractor as the Government. Such risk allocation results in many suppliers refusing to tender for Government work. Further, the Report cautions that those who do will likely build a hedge into their bid prices, as a protection against the risk assumed.

The Report recommends that contractors and other suppliers should work with governmental organizations to develop a better understanding of each other's operations. The goal of this process would be bring forward revised contract language and practices that are broadly acceptable to Government, which will allow contractors and other suppliers to offer competitive bids for Government work.

Introduction

General Description of the Study

1 In this Report, we review and analyze a number of emerging contracting practices in relation to Government construction contracts in the Greater Toronto-Hamilton Area. The term "Government" includes the Federal and Provincial Governments, their respective boards and agencies, the numerous municipal Governments which operate in this area, as well as school boards, universities, community colleges and hospitals.[1] Collectively, these various levels of Government spend more than $2.6 Billion every year in the GTHA. (See map on page 9)

2 The Report concludes that Governments within the GTHA are making it difficult for commercially responsible and sophisticated construction Contractors to bid for Government work. We explain why this is having an effect on both the supply of construction services to Government, and the price that Governments must pay for those services. As we will explain below, these measures are costing Government a great deal of money—by our estimate, more than $131 Million per year. This is a matter of concern, not just to the Governments of the day, but to all taxpayers—since it is they who must eventually foot the bill.

3 It is no over-statement to say that the need to enhance the efficiency of government construction contracting has become a matter of national urgency. According to a 2007 report prepared for the Federation of Canadian Municipalities, the municipal level of Government alone had an estimated infrastructure deficit of $123 billion at the end of 2007.[2] Approximately 80% of Canada's infrastructure is past its service life.[3] In many municipalities the deficit is growing quickly. In Hamilton, the City's 2008 budget for investment in capital infrastructure was $100 million less than what was required for sustainability. In 2009, it budgeted $36 million less than what was required. Including a replacement reserve provision, that deficit would be $75 million.[4] In its 2009 Tax Budget, the City of Hamilton reported:

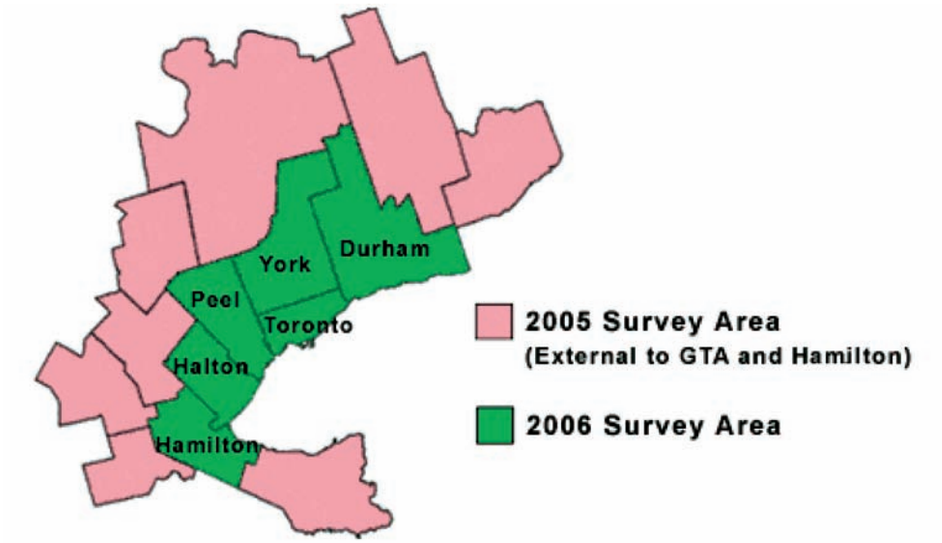
> "For the 10 year Capital Forecast, several infrastructure repair programs (roads & bridges, facilities, housing forestry and park development) remain under-funded (at a minimum, $1 billion over a 10-year period)."

Thus, the problem is not only one that is bad, it is one that is getting worse. While the situation in Hamilton may not be representative of the newer municipalities of Ontario—such as Mississauga, Oakville and Burlington—it is very much representative of the Province's older cities. And a disproportionate number of these older cities are located in the GTHA, or are immediately adjacent to it.

4 Since many Government tenders and RFPs now attract only one to three bids,[5] there is a clear benefit to Governments in enhancing the attraction of their contract competitions to prospective Contractors. The number of bids attracted is, of course, only one of several factors that may influence the price that the Government must pay. Equally relevant are the risk implications of the contract terms and practices that Governments employ. This Report incorporates a commentary upon the likely pricing consequences that flow from these terms and practices, as well as the impact on overall willingness to bid. It also proposes some solutions

to the underlying Government concern that gives rise to such practices, which it is believed should be sufficient to meet that concern, while at the same time resulting in a sufficient balancing of risk to allow responsible and sophisticated construction Contractors to increase their participation in competition for Government work.

Map of the Greater Toronto-Hamilton Area[6]



The Problem and its Consequences

5 Five general subjects are discussed in this Report. They are: one-sided contracting, unbalanced risk transfer provisions (these two subjects being very closely related), prequalification of Contractors, poor specification preparation, and non-transparent evaluation methods. In each of these areas, there is widespread Contractor concern in relation to the terms that Governments are seeking to impose. Raising complaints about a particular contract term is unlikely to persuade many Governments to change their contracting practice, if they are of the view that a particular practice is necessary to protect them in relation to some aspect of a proposed transaction. Where, however, these practices actually work against the Government's interest as a customer, they become a matter of concern to the taxpayer.

6 As noted above, Government contracting practice are having an effect on both the supply of construction services to Government, and the price that Governments must pay for those services. Similar results have been identified elsewhere. For instance, in one Australian study[7] dealing with the Government practice of insisting upon the acquisition of all IP developed in relation to work on Government contracts (a similar approach is followed by many Governments in Canada[8]), the following adverse consequences were identified as resulting from such one-sided contract terms.

- Contractor withdrawal from the government market place due to concern over profit stream, loss of leading edge development capability, and the difficulty and time consumption associated with securing Government work. The study notes:

  > "When this happens, agencies are not exposed to the full range of potential ICT suppliers and therefore potential ICT solutions to the problems giving rise to the procurement. …
  >
  > "Suppliers may, if faced with a government procurement opportunity and a private sector procurement opportunity, consider that it can only devote resources to one. This is particularly the case where the private sector procurement is less formal (for instance, involves less documentation costs and onerous disclosure requirements), more flexible and is based on what appear to the supplier to be more reasonable starting positions."

- Government ends up with "B Team" Contractors: prudent companies will not devote their resources to Government projects when they have the chance to take on private sector opportunities which do not present the same level of risk or loss of opportunity that Government work presents. The result of this loss of top level Contractors is well summarized in the following statement:

  > "… government is not getting the option of choosing the best technology and solution. It also implies that government policy to achieve best value for money is being inadvertently undermined by IP policy and practice."

7 American studies indicate that the utility of the competitive contract award process turns upon the number of bidders who compete for the contract in reply to a request for tender or proposal. Where the number of bidders is fewer than four, the winning price will usually be above the prevailing market price. It is not difficult to explain why this may be the case. The first in importance is the fact that the strongest suppliers within a market are usually among the first to abandon niches within the market that present exceptional risk. Contractors and other suppliers that have a good reputation rarely wait long for work. Since no Contractor can take on every contract, it is far more rational for a strong Contractor to reject contract opportunities that present exceptional risk. A second important reason is that a reduction in competitors reduces the need to bid aggressively. Reduce the number to one, and there is no need for a Contractor to bid aggressively at all. As one moves from a large number of bidders to a smaller number, one approaches the level at which the benefit of aggressive bidding fades. This is especially true in a tender or RFP, where each prospective Contractor submits only one bid price. There is no opportunity in such a case for the customer to seek to drive down the price through subsequent negotiation.

8 On a darker level, one of the problems with reducing the number of suppliers who participate in an RFP is that it encourages bid rigging. The OECD cautions that:[9]

> "The probability of bid rigging is higher if there are few bidders. Bid rigging requires bidders to reach an agreement that eliminates competition. It is also easier to reach an agreement if the same bidders are involved in repeated procurements."

The same OECD publication also notes:

> "If entry in a certain bidding market is costly, hard or time-consuming, firms in that market are protected from the competitive pressure of potential new entrants. The protective barrier helps support bid-rigging efforts."

The solution proposed follows naturally from these points, and it is consistent with the recommendations set out in this Report:

> "If the design of the tender process encourages participation by many bidders, then the chances of bid rigging are reduced. While the use of conditions can help to eliminate those firms that are unqualified for the task, careful judgment should be exercised in this regard, so as not to discourage qualified bidders. Unnecessary restrictions on their size, composition or nature can reduce their number. Bidders can also be discouraged if the cost of preparing their bid is high."

9 A second general area of concern that arises from current Government practices in relation to procurement is that Contractors price their bids to reflect the imbalance that the Government contract presents. All suppliers in every market, including construction Contractors, must necessarily factor the risks that they are called upon to assume (whether by law or by market forces) into the price that they charge to their customers. Risk is as much a factor of price, as the cost of raw materials. If Governments depart from the general contractual practice within a marketplace, they vary the risk to which the Contractor is exposed. Since in most cases, the intent behind the variation is to impose a risk on the Contractor that would not otherwise be borne by the Contractor, the price charged will go up.

10 The difficulty is placing a price tag on these consequences. While there is considerable anecdotal evidence in relation to Contractor unwillingness to bid for Government work, there is little hard data on the extent of the problem or the cost to Government to which such unwillingness gives rise. In the Appendix to this Report, we explain the difficulty at arriving at a realistic figure for the annual value of Government construction activity in the GTHA. Nevertheless, despite these difficulties, it is clear that the amount of such activity is substantial. We estimate it to be in the range of $2.6 billion per annum, including all municipal, hospital, school, and college capital expenditure, plus the portion of Provincial and Federal capital expenditure that is for their respective own use.

11 A reasonable estimate of the amount of construction then allows us to proceed to an estimate of the likely extra cost incurred as a result of contracting practice that we critique in this Report. Based upon the analysis set out in this Report, we estimate that Governments could save as much as 3% of their capital cost, by adopting a more competitive approach to procurement, and a further 2% by adopting a more balanced approach to risk allocation.

Total Government Expenditure in Canada, Nationally 2007-09[10]

Government	2007	2008	2009
Federal	$1,776	$2,085	$2,455
Provincial & Territorial	$8,177	$11,608	$12,853
Municipal & Other Local	$12,861	$14,988	$17,216
Total	$22,814	$28,681	$32,523
Municipal as a Percentage of Total	56.37%	52.26%	52.93%

The Root of the Problem

12 As a general observation, a good deal of the contracting process is fundamentally about the mitigation, avoidance and allocation of the risks of various kinds that are associated with a contract. As we will explore in greater detail in the balance of this Report, this is particularly true with respect to some of the types of Government contracting practices to which Contractors have taken exception. Since the focus of this Report is on the construction industry, it is worthwhile referring to one of the leading works on the management of construction related risk, to get an understanding of the scope of the problem:[11]

> "Risk! Construction projects have an abundance of it, Contractors cope with and owners pay for it. The construction process is subject to more risk and uncertainty than many other industries. The process of taking a project from initial investment appraisal to completion and into use is complex, generally bespoke, and entails time-consuming design and production processes. It requires a multitude of people with different skills and interests and the coordination of a wide range of disparate, yet interrelated activities. Such complexity, moreover, is compounded by many external, uncontrollable factors."

Risk is an implicit element in the execution of capital projects. It manifests itself in numerous forms at different stages in the project life cycle. For public sector organizations sponsoring a major capital project, the risk exposure, and the consequent risk impacts, must be handled within the cultural and environmental framework within which they are required to operate.

13 There is a legitimacy in Governmental concern in relation to risk. Risk is endemic to nearly all aspects of life. Risk outcomes may have both financial and non-financial consequences.[12] Only in relation to the handful of matters that are certain, is risk not a concern. Certainty

can exist only when one can specify exactly what will happen and when. Risk is a concern whenever dealing with matters of probability. While some probabilities can be determined rationally by experiment or observation, most are determined no more than intuitively, with the estimate of probability being based upon experience (or a perception of experience) in dealing with matters considered to be analogous to the situation with which one is concerned. Risk is even greater when dealing with those matters that fall outside relevant experience. Such a situation may exist either due to the unique nature of a project or to the extent of the unique features which differentiate projects of a given kind. Site conditions afford a good example of the latter type of risk: no two properties are alike. Thus, the risks associated with building identical facilities on two different properties may be significantly different.

14 It is risk which affords much of the driving rationale for the employment of cost-benefit analysis. However, not all approaches to risk are satisfactory. If badly handled, the contracting process can actually result in an increase in the risks associated with contracts of any given kind. As we will explain, this appears to be occurring with many emerging contracting practices that are being adopted by GTHA Governments. In our view, Governments have an obvious interest in adjusting their contract practice so as to encourage top quality construction Contractors and other Contractors to bid aggressively for public contracts. They also have an interest in securing the best price possible for the work that is to be done or other supply that is to be made. Most certainly, the public as taxpayers—and this would include those taxpayers who are members of the construction industry—have similar interests. Therefore, in addressing the various issues raised in this Report, we will seek to tie those issues to their probable impact on the number of Contractors willing to bid for Government work, as well as the prices that are likely to be quoted for the work that is to be done.

15 Since risk constitutes the basis of much of the science of contract drafting, it is advisable to relate any arguments regarding particular contract terms to the subject of risk. It may be reasonably assumed that Governments and Governmental agencies adopt particular approaches towards contracting based upon their concerns about perceived risk. Modification of existing approaches may well be possible where a reasonable argument is advanced to demonstrate that the cost of particular risk avoidance measures exceeds the benefit that they offer, or that the measure employed to mitigate of avoid one kind of risk actually leads to a disproportionate increase in some other kind of risk. It is this approach that we apply in this Report.

16 As noted above, we believe that there is considerable reason to believe that Government contracting practices do indeed frequently work against the Government's own best interest. In principle, Governments should enjoy the most favourable contract terms offered by any supplier with which they deal to its customers. Governments invariably purchase large quantities of goods and services. Although Governments can be slow to pay, it has been a very long time since the last Government in Canada defaulted in the payment of one of its suppliers (other than in the case of a legitimate dispute over its obligation to pay). Furthermore, Governments are not in the main prone towards the institution of breach of contract actions.

Yet Governments across Canada—and elsewhere in the Western world as well—have been shown to pay consistently above the prevailing market price for the goods and services that they purchase. In this Report, we explain why it is that common Government construction practices in the GTHA serve to increase the prices that Governments pay.

17 Much of the thinking in this Report is guided by the considerable volume of economic literature that has been published over the last thirty years in relation to efficient contracting. Taken collectively, this body of literature lays the foundation for a comprehensive and robust theoretical model of the workings of real world contracting, which explains how the terms of contract between suppliers and buyers within any given market adjust the level of reward to the supplier (i.e. by way of the price charged to the buyer) in accordance with such factors as the level of risk that the supplier is expected to assume. Contractor pricing, in other words, not only takes into account such hard factors as borrowing, labour, utility, taxes and material costs, but also the risks that are identified in relation to a particular contract. Where those risks can be accurately assessed, the price is adjusted to reflect the known probability of the risk arising, and the prospective loss that will occur (to the party to whom the risk is assigned) when and if the loss does arise. Where a particular risk cannot be quantified in this manner (as is often the case), then the party to whom the risk is assigned must adjust its willingness to enter into the contract, to reflect its own estimate of the anticipated cost that the risk presents.[13]

18 The greater the extent to which estimates must be based upon subjective assessments of the probability of occurrence and severity of consequence of the risks associated with transactions of a given kind, the greater will be the disruptive effect of those assessments on transactions occurring within the market concerned. If a market is characterized by a large number of repeat transactions, and if the prospective detrimental hazard presented by the risks assigned to each party in the contract is relatively minor, the prospective parties to a contractual relationship are likely to approach the contract on an averaging basis—a process which can be described as setting-off the loss on the swings against the gains on the roundabouts. Where this is done, both sellers and buyers may remain in the market in the expectation that while a loss may be taken on an individual contract where a risk is encountered that has not been adequately provided for, that loss will be balanced by unexpected profit on similar transactions in which the risk provision has proven to be greater than necessary.

19 Unfortunately, construction activity does not give rise to repeat transactions and low levels of risk of this kind. Very frequently, Contractors and owners will deal with each other once, and never again (or, at least, not for a very long time) because most owners do not engage in construction on a routine basis. Governments, of course, depart from the norm in this respect. Major cities and both Provincial and Federal Governments undertake a significant amount of construction work every year. Nevertheless, the extent of competition for such work limits the number of transactions over which gains and losses may be averaged. More importantly, the risks associated with construction are very high. As has been noted in the specific context of scheduling risk—which represents only one of several broad categories of risk in relation to construction:[14]

> "Construction projects are initiated in complex and dynamic environments resulting in circumstances of high uncertainty and risk, which are compounded by demanding time constraints. … The amount of uncertainty in the internal and external environments of a project is an important factor in determining whether there will be a schedule overrun. However, attempting to consider realistically the uncertainty in construction schedules poses three challenges. The first challenge is that systems are not endorsed professionally or available commercially, which can be used to structure project uncertainty and measure the effects on the project schedule. The second challenge is the lack of easily accessible information documenting the experience of the construction industry or the knowledge scattered within a corporation. The third challenge is the difficulty motivating the involvement of the senior project management team to address adequately schedule risks. Project teams generally are too preoccupied with solving current problems involved with getting work done and therefore have insufficient time to think about, much less carry out, a formal risk assessment program."

It follows that few Contractors are in a position to hazard the prospect of a substantial loss on one project, in the hope that a windfall gain may be made on some later project. Further, the competitive process of awarding contracts in the public sector—although clearly beneficial in terms of promoting the prudent management of public funding—limits the prospect of gain and loss averaging by any one Contractor.

20 In such an environment, a rational Contractor will have a considerable incentive not to pursue transactions which present an atypical risk profile, in comparison to other prospective contracts that are available within a market place. Thus risk allocation in contracting has a direct affect on pricing within any industry. It causes the risk adjusted production cost of all Contractors to increase, which results in them charging higher prices.

21 Moreover, this direct effect on price is compounded by the further likelihood of supplier exit—that is, the refusal of Contractors to compete for Government contracts. "Exit" occurs when consumers want to buy something that no Contractor or other producer thinks he or she can afford to sell to them. This belief may be due to the cost of production, delivery or otherwise affecting supply, or to the contractual burdens (such as risks of loss) associated with the supply of the thing concerned. Producers may also exit from a particular sub-market when the returns offered in that sub-market are less than what is available in other sub-markets. Exit has an indirect effect on pricing. Since some producers (and Contractors) will inevitably be more efficient than others, it is rational for them to seek the sub-market which offers the best return on sales. Thus, over time, the inevitable effect of exit within an industry is to cause price to escalate within the sub-market concerned: those Contractors remaining will be the least efficient; moreover, there is less competition for the work within that sub-market.

22 Both these developments present a considerable risk to the prudent management of public funds by Government, most importantly with respect to the ability of the Government to maximize value for money in construction procurement.

Government Capital Expenditure in the GTHA

23 Governments are among the most important customers for construction services in Canada. Nevertheless, accurate estimates of the value of total Government construction activity are difficult to come by, particularly in relation to a specific locale such as the GTHA. Since an understanding of the level of Government construction in this area is central to the issues considered in this Report, in this Chapter, we will estimate that total value for the GTHA. Later in the Report, we will use this figure as a basis for estimating the cost to the taxpayers of Ontario resulting from the contracting practices that are dealt with in the Report. In order for the Report to have credibility, to be conservative in calculating both estimates. For this reason, in all likelihood, our estimates of the total value of Government construction in the GTHA are on the low side.

24 The population of Toronto is approximately 2.5 million, while the population of the entire GTHA is approximately 6 million. There does not seem to be any published official data, which consolidates total government expenditures of all kinds within the GTHA. While numerous Government publications allude to the general level of expenditure by specific orders of Government, in light of the practice of transfer payments and the re-bundling of old commitments into new programs, there is a serious risk of double counting.[15] Hospitals serve as a case in point. They are financed primarily by way of Provincial funding. However, hospitals also finance capital expansion and renewal through public and private fund-raising.[16] Investment in transportation infrastructure also presents a risk of double-counting, with both the Federal and Provincial governments contributing significantly to municipal level expenditures. The City of Toronto's 2009 budget statement provides a specific indication of the level of Federal and Provincial support that municipalities receive:

City of Toronto, Sources of Funding, 2009

	$ Billions	Per Cent
Provincial Grants and Subsidies	$2.10	24%
Federal Grants and Subsidies	$0.20	2%
User Fees	$1.30	15%
Reserves/Reserve Funds	$0.40	5%
Other Revenues	$1.10	13%
MLTT/PVT	$0.20	2%
Property Taxes	$3.40	39%
Total	$8.70	100%

Federal and Provincial support varies from one municipality to the next. For instance, in 2008, the City of Hamilton[17] received $249,682,000 in Federal and Provincial grants against total revenue of $1,306,964,000 (about 19%, and thus about 7% less than what was received by Toronto). While there is a substantial disparity in the funding received by these two cities, the amount of support is at least arguably in same general range.

25 Municipal budget data would seem to be the best starting reference point for estimating total Government expenditure, because municipalities are the most visible level of Government. Collectively, they own the bulk of capital of infrastructure,[18] and in any given area of the Province, ordinarily they will be the most active level of Government engaging in construction. While Federal and Provincial support is very often provided for municipal capital projects, even where this is so cities invariably must fund at least one-third of actual cost from their own money. Unfortunately, even in the case of municipalities, it is difficult to aggregate the level of municipal capital expenditure outside the City of Toronto, given the number of municipalities concerned, and the different levels of municipal government (e.g., regional, local).

26 The largest of the GTHA municipalities is Toronto, and thus it is only logical to begin our inquiry by looking at the level of expenditure in that City. The City of Toronto's 2009 Capital Budget discloses the following general levels of expenditure by department.

City of Toronto, Capital Expenditure, 2009

Capital Expenditure By Department	$ Million
Public works and Infrastructure	$202.11
Public Safety and Emergency Services	$13.55
Transit	$396.18
Public Spaces	$78.69
Environment	$31.09
Community & Recreation Services	$64.55
Improve Public Services	$15.15
Total Capital Expenditure	$801.32

Not all capital expenditure is construction-related. Out of the above amounts, the following figures constitute construction-related expenditure by each of the departments concerned:

City of Toronto, Construction Expenditure, 2009

Construction Expenditure By Department	$ Million
Public works and Infrastructure	$202.11
Public Safety and Emergency Services	$11.55
Transit	$115.72
Public Spaces	$78.69
Environment	$7.99
Community & Recreation Services	$51.33
Improve Public Services	$0.00
Total Construction Expenditure	$467.38

27 Toronto makes up 41.7% of the population in Ontario, suggesting aggregate municipal expenditure in the range of $1.12 billion on construction per annum by municipal governments in Ontario. A critical question, however, is whether Toronto's figures are more or less representative of Province-wide municipal spending. Surprisingly, there is reason to believe that Toronto may actually spend less on construction than other older cities. Sixty-five km down the road, for instance, the City of Hamilton affords a sensible comparator, because it also is a single-tier municipality. Hamilton proposed the following construction related expenditures in its 2009 budget:

City of Hamilton, Infrastructure Spending, 2009

Item	$ Thousands
Road Rehabilitation (excluding development charges)	$72,079
Waste management	$6,436
Corporate facilities	$36,986
Culture & Recreation Facilities	$12,030
Non-profit Housing	$3,000
Parks	$8,899
Forestry	$2,321
Total	$141,751

Since the City of Hamilton is roughly one-fifth the size of the City of Toronto, Hamilton would spend approximately $708 Million per annum on construction if it were the same size as Toronto. Thus the Toronto figures do not seem unrealistically high.

28 Taking all of the above into account, we conclude that it is a reasonable estimate that the total annual net level of municipal government capital and construction expenditure in the GTHA (i.e. excluding inter-governmental transfers) is at least twice that of the City of Toronto. This would place that amount in the range of $900 million to $1 billion per annum. In per capita terms, Hamilton spends approximately $282 while Toronto's expenditure is estimated to be $187.

29 Aggregate School Board expenditure is even harder to determine than expenditure by municipalities, as one must pull together figures relating to both the Separate and Public School Boards, as well as for French Schools. Based on the information provided by the Toronto District School Board, an average annual expenditure across the GTHA in the region of $300 to $350 million would not seem unreasonable, particularly since some school boards, such as those in Peel and Halton, are expanding quickly.

30 In addition to expenditures at the municipal level, Federal and Provincial governments and universities also make significant capital expenditures—particularly within the City of

Toronto itself. Much of this expenditure takes the form of transfer payments to lower levels of government and to public institutions, so it can be difficult to separate actual higher level expenditure from such support. However, a good portion of Federal and Provincial capital expenditure of this kind is "own use" expenditure, such as the Durham Consolidated Courthouse project in Oshawa.

31 Most of the Government of Ontario's current construction program is managed by a Crown agency, Infrastructure Ontario.[19] The 2007-08 Annual Report for Infrastructure Ontario states that as of the "fiscal year ended March 31, 2008, over $5 billion in capital projects had been brought to market." It is not clear whether this figure applies only to those currently under construction or if it includes other projects awaiting contract award. Of the 23 projects shown on the IO website as being currently under construction, roughly one-third are in the GTHA. On a proportional basis, this would place the total value of IO construction in the GTHA at about $1.7 billion. Given IO's usual construction timeframe of two years, the annual expenditure would therefore be in the range of $850 million.

32 Figures for Federal expenditure are harder to come by. For the purposes of this Report, we have assumed that the level of expenditure is in the range of that of the City of Toronto, which as noted above is about $460 million.

33 In addition, there are a number of publicly-owned post-secondary educational institutions in the GTHA area. The City of Toronto is home to three major universities (all colleges of the University of Toronto being part of that one University). Hamilton is home to one, McMaster University, plus a satellite campus of Brock University. Oshawa is home to the University of Ontario Institute of Technology. There are also five community colleges in Toronto, and a further three outside Toronto in the GTHA. Each of these institutions has its own construction program, as do numerous school boards and other public institutions in the area. Capital expenditure levels vary at each of these institutions. The following figures from the 2007/08 McMaster University financial statements in relation to major capital projects at that University are nevertheless generally indicative of the order of magnitude of such expenditure:

McMaster University, Major Capital Projects, 2007-08

Project	$ Million	Source
Ronald V. Joyce Stadium	$35.70	Parking fees, pledges & fund raising
Second Floor of MDCL	$18.50	Fund raising
New Engineering Building	$48.00	MTCU, research grants, fund raising, university
Deferred Maintenance Projects	$9.20	MTCU Year end grants
Surgical Skills Lab	$3.10	MTCU grant & university
Total	$114.50	

Assuming a similar level of expenditure at the other universities, they would undertake a further collective of $458 million in construction on an annual basis. While colleges would be unlikely to spend as much, several of them are carrying out fairly substantial construction work.

34 On the basis of this evidence and the assumptions set out above, our estimate is that the total annual amount of Government construction in Ontario, including the broader public sector (hospitals, universities and colleges), is in the range of $2.5 to $2.75 Billion. The following table provides a summary:

Estimated Total Government Expenditure on Construction in the GTHA

Government	$ Millions
City of Toronto	$470
Other GTHA Municipalities	$470
Government of Ontario (including hospitals)	$850
School Boards	$300
Universities	$458
Colleges	$75
Total	$2,623

One-Sided Contracts

Overview

35 In recent years, there has been a growing tendency across Government to include provisions in their standard form contracts for the purchase of goods and services (including construction) which are excessively one-sided in favour of the Government. In this Chapter, we will discuss when and why provisions of this kind actually work against the Government's own interest.

36 The use of one-sided contracts—in which the Government seeks to shift aspects of risk to the private sector—appears to derive from an implicit assumption that the private sector is better placed to identify and manage risk than the public sector.[20] Governments are under great pressure to manage their own risk more effectively.[21] An obvious method of "managing" risk is to shift it to someone else. The problem with such an approach is that some methods of managing or avoiding risk are inefficient. Inefficiency results when the risk management mechanism employed incurs a higher cost than the discounted cost of assuming the risk.

Examples of the Problem

37 The following provisions are not intended to be exhaustive, but illustrate the concerns that exist in relation to one-sided contracting. They are all taken from RFP or contract documents employed by Governments in the Greater Toronto-Hamilton Area. Many appear in substantially the same form in the contract documents employed by numerous such Governmental entities.

(a) Realistic Terms and Conditions

38 Optimal contract prices can be obtained if (and only if) the terms of contract offered by a customer to the market are realistic. "Realism" in relation to the preparation of terms of contract means that the terms utilized are consistent with the assumptions upon which suppliers in the market base the prices that they offer to their customers. When a Government customer seeks to depart from the normal terms of contract that prevail in a given market, the effect of doing so is to change the risk profile associated with its contracts, from that which applies with respect to a supplier's other customers.

39 Unrealistic approaches to contracting in the private sector have long had a tendency to lead to sub-optimal results for the Governments which employ them. Traditional construction procurement, particularly in the public sector, has focused primarily on the initial cost of the acquisition and the technical specification of the project to be delivered. Once built, the facility then has to be supported. Typically, there was no attempt to assess and minimize the overall life-cycle costs of its acquisition, making the procurement process both costly and inefficient. Often a Contractor would perceive that the only way that it could secure a contract—much less make a reasonable return on its investment—was to use every possible opportunity to slash costs by taking "short cuts" in the construction of the project, and to attempt to make money through change orders and corrective work following project delivery.[22] It was this practice which evolved into the problem of the low-ball bid—an on-going problem that is widely recognized as being a plague both by Governments and to the best private sector Contractors who bid fair prices for the work that is to be carried out.

40 One of the reasons why Government purchasing tends toward the sub-optimal, is because Government staff in general have limited understanding of how the private sector works. The operational paradigms of government and business are fundamentally different. Understandably, people who work in government are expert in public policy selection, and program development and delivery. Since Governments are oriented towards the delivery of public services and programs, rather than towards the operation of a business at profit, few public servants give much thought to the subject of how their suppliers go about pricing their bids. However, this does not mean that the public service is uninterested in securing a good deal for the Governments for which they work. On the contrary, many of the contracting practices and terms which currently undermine the public procurement process appear to be the result of a sincere effort on the part of the public service to secure a good deal.

41 To mitigate the problems that arise from the different rules of engagement under which the public and private sector operate, private sector Contractors (and other suppliers) as well as their trade associations should play a proactive role in working with Government purchasing departments, to familiarize them with the likely consequences of different contract options. We believe that most public servants engaged in purchasing are keen to develop a better understanding of, and relationship with, their Contractors and suppliers.

(b) Contract Extension

42 One of the most common provisions appearing in Government contracts is the contract extension. Typically, a provision of this kind will read:

> "The term of the Agreement is to be for a period of one year commencing upon the execution of the Agreement, with an option in favour of the Customer to extend the Agreement on the same terms and conditions for an additional term of up to one year, which extension shall be deemed to include a similar right of renewal."

A comparable provision of particular importance in construction allows the Government to order changes in work. Contract extension provisions in public contracts appear to have been intended originally as devices to encourage top quality performance by suppliers.[23] While there may be some limited benefit of this nature, from a supplier perspective, the effect of such rights of extension is to extend the prospective duration of a contract entered into on an unfavourable basis which leaves the Contractor guaranteeing a price for a much longer period than the Contractor has any expectation of earning revenue. Where successive extensions are contemplated the provision is unrealistic because it asks prospective Contractors to quote a price for a period of potentially indeterminate duration. In any market, prices will fluctuate over time, in response to prevailing rates of inflation across the economy as a whole, price pressures that are unique to the particular market in question, and changes in technology which may force prices both down and up.[24] To undertake to hold prices without assurance of a market, is to undertake a risk without obtaining an off-setting benefit. This is not likely to prove an attractive proposition to any prospective Contractor.

(c) Volume of Work

43 A second common type of one-sided provision deals with the volume of business that a prospective Contractor can expect to obtain by securing the contract for which it is bidding. The apparent goal of the provision is to allow the Government customer to obtain comparable supplies from alternative sources, should (for instance) those sources offer more attractive pricing during the term of the supply arrangement. A typical provision will read:

> "The Customer makes no guarantee of the value or volume of work to be assigned to the Successful Proponent. The Agreement executed with the Successful Proponent will not be an exclusive contract for the provision of the described Deliverables. The Customer may contract with others for the same or similar Deliverables to those described in this RFP or may obtain the same or similar Deliverables internally."

Comparable provisions in the construction setting allow the contract to be cancelled or scaled back, without notice, penalty or bonus, even as late as the actual execution of the work.

44 The essence of a contract is that it is a binding promise. This basic business premise is inconsistent with unilateral rights to cancel a contract (as for instance in order to allow "flexibility to implement policy changes"). Contracts are often priced on the basis of an assumed volume of business. Unless a Contractor has confidence that the Government is entering into a firm commitment, it may treat the contract as little more than an expression of interest. As a result, the Contractor will include a hedge in its price, to avoid the risk of an adverse fluctuation in the spot market price. While governments usually include provisions that allow them to do so, in practice, it is unusual for a Government to take advantage of a unilateral right to terminate a contract prior to its specified termination date. Even in the case of multiple year contracts, for the most part the value of business tends to remain constant from year to year. Yet few contractors (and only rarely those of top-drawer quality) will be prepared to assume a risk of this nature. Governments need to ask themselves whether it is worth paying a large premium to buy a right that they rarely use.

45 Somewhat similar one-sided provisions are often included, to allow the Government Customer the right to escape liability under the transaction, if the relevant legislative authority does not grant budgetary approval. A typical provision of this kind will read:

> "If this Contract extends into a Fiscal Year subsequent to its execution, continuation of the Contract is conditional upon a budgetary appropriation of moneys by the Customer's City Council sufficient to satisfy payments due under the Contract. In the event that such moneys are not available as a result of: (i) non-appropriation by the City Council for the Fiscal Year in which payment becomes due; and (ii) the payment being neither charged nor chargeable to an appropriation of the City Council for a previous Fiscal Year, the Customer may terminate the Contract upon giving notice to the Contractor. Termination shall become effective on the date of the beginning of the first Fiscal Year for which funds have not been appropriated."

Finally, there are provisions common in Government contracts, under which the Customer is given a unilateral right to terminate agreement at its own convenience, following the giving of some short notice. The following is a typical provision of this kind.

> "The Customer reserves the right to terminate the Contract, without cause, upon thirty (30) calendar days prior written notice to the Contractor."

46 In effect, under provisions of the foregoing nature, the Customer is not really entering into a contract for the supply of services. Rather, what it is asking for is a contract under which it has the option to request the supply of services at a settled price. However, unlike the normal option contract, the Customer does not pay an option price, in consideration of the Contractor's undertaking. Instead, the Contractor in the transaction assumes all of the risk of adverse market fluctuation in price. It may recover in relation to that risk only if the Customer actually takes delivery of a supply.

Provisions which in effect ask the Contractor to commit to a binding obligation to supply at a given level, while allowing the Customer complete freedom to decide to make no purchase at all, expose the Contractor to unacceptable risk. It is axiomatic that in order to make a supply, Contractors must make adequate provision to meet their contractual obligations (e.g. hire staff, contract for raw materials and other necessary inputs). To do so, they must be able to make reasonable assumptions concerning the extent of those commitments. Where this cannot be done, the Contractor is asked to assume an atypical risk. Since any risk assumed must necessarily be reflected in the bid price of the Contractor, the consequence of unrealistic one-sided provisions is to increase the Customer's cost of supply.

47 Provisions of this kind are especially burdensome in construction contracting, in view of the special purpose production nature of construction activity. A Contractor who commits to Project "A" is unlikely to be able to shift to Project "B", should anticipated work on Project "A" fail to materialize. The Contractor's fixed costs, in such an event, must nevertheless be met. Moreover, staff lay-off and cancellation of material supply contracts undermine the ability of that Contractor to compete for contracts in the future.

(d) Trying to Get Something for Nothing

48 In RFPs for design-build construction contract, it has become common for the RFP to state that the ownership of the draft design proposals passes to the Government on submission of a bid. The intent of such provisions is to entitle the Government to make use of the design, without paying anything for it. In this way, the Government can then ask the successful bidder to adopt parts of the design proposals put forward by unsuccessful bidders, and to incorporate those parts into the final facility.

49 Provisions of this kind have a number of adverse implications and effects. For instance:

- If these features were originally included in the winning bid, then it quite possibly would have had a higher price and therefore would not have been successful.
- The unsuccessful bidder in effect contributes value to the final project, without compensation.
- Since the designs required in the case of such contracts are often fairly detailed, the requirement for such extra design work makes the bidding process more expensive and time consuming.

Including provisions of this kind is likely to discourage many Contractors from competing for the contract concerned. In addition, this approach favours large scale contractors—who can perhaps average the cost of preparing detailed designs across several customers, or who are able to draw upon an extensive inventory of stock designs.

(e) Customer-Supplied Information

50 Another common type of one-sided provision pertains to the provision of information by the Customer to the Contractor. The following is a typical provision of this kind:

> "The Customer and its advisors make no representation, warranty or guarantee as to the accuracy of the information contained in the RFP or issued by way of addenda. Any quantities shown or data contained in this RFP or provided by way of addenda are estimates only and are for the sole purpose of indicating to Proponents the general size of the work. It is the Proponent's responsibility to obtain for itself all the necessary information to prepare a proposal in response to this RFP."

Provisions of this nature are unrealistic, for as a general rule the Contractor is in a worse position to assess whether estimates are accurate than is the owner.

51 Other common one-sided provisions involve broad rights of indemnification, which afford protection far beyond covering anything that may be done wrong by the Contractor, or for which the Contractor might otherwise properly be held accountable. Coverage is expanded outside the kind of foreseeable damages that can be priced into a contract, to cover even the most remote "incidental, indirect, special or consequential damages." In contrast, Governments themselves are generally unwilling to undertake the most limited indemnification obligation, refusing to consider rights of indemnity relating even to deliberate wrong-doing by the Government as a customer, or by some person under the direct control of the Government. The following is a typical provision of this kind:

> "The Contractor hereby agrees to indemnify and hold harmless the Indemnified Parties from and against any and all liability, loss, costs, damages and expenses (including legal, expert and consultant fees), causes of action, actions, claims, demands, lawsuits or other proceedings, (collectively, "Claims"), by whomever made, sustained, brought or prosecuted, including for third party bodily injury (including death), personal injury and property damage, in any way based upon, occasioned by or attributable to anything done or omitted to be done by the Contractor, its subcontractors or their respective directors, officers, agents, employees or independent Contractors in the course of performance of the Contractor's obligations under, or otherwise in connection with, the Contract. The Contractor further agrees to indemnify and hold harmless the Indemnified Parties for any incidental, indirect, special or consequential damages, or any loss of use, revenue or profit, by any person, entity or organisation, including, without limitation, the Customer, claimed or resulting from such Claims. The obligations contained in this paragraph shall survive the termination or expiry of the Contract.
>
> "Notwithstanding anything else in the Contract, any express or implied reference to the Customer providing an indemnity or any other form of indebtedness or contingent liability that would directly or indirectly increase the indebtedness or contingent liabilities of the Customer, whether at the time of execution of the Agreement or at any time during the Term of the Contract, shall be void and of no legal effect."

Provisions of this kind are unrealistic in the first instance (i.e. with respect to the coverage demanded from the Contractor) because they require the Contractor to cover remote contingencies and claims, and to compensate for losses that cannot possibly be anticipated by the Contractor. Moreover, complete exclusions of liability on the part of the Customer impose further risk upon the Contractor.

(f) Extraordinary Rights of Holdback

52 The *Construction Lien Act* provides for a statutory holdback, which is used as a guarantee fund for the payment of service or materials to the construction project to which the contract relates. This holdback has become an accepted feature in the pricing of construction contracts, to such an extent that it would now be difficult for construction Contractors to determine a bid price if for some reason the statutory holdback did not apply. Perhaps with this thought in mind, there has been a growing tendency for Governments to demand additional holdbacks to protect them against latent defects and other types of risk. The following is a provision of this kind:

> "In addition to any other monies retained by the Owner, the Owner may retain from the monies otherwise due to the Contractor an amount equal to ••% of the Contract Price for Start-up and Commissioning, for a period of 12 months following the date of successful commissioning. Upon notice to the Contractor, the Owner may draw upon the amount so retained where,
>
> "(a) the Contractor is in default of any of its material obligations under this Contract;
>
> "(b) all or any part of such payment is attributable to work that is defective or not performed in accordance with the Contract Documents;
>
> "(c) the Contractor has improperly failed to make prompt payments to its Subcontractors and other Contractors for work which the Owner has made a payment to the Contractor;
>
> "(d) a lien has been registered against the Owner's interest in the premises, and that lien has not been vacated or discharged as provided in this Contract;
>
> "(e) in the opinion of the Consultant, the Contractor has fallen behind the construction schedule, and the Consultant has advised the owner that a deduction from the amounts otherwise payable to the Contractor is required to protect the Owner from loss, damage or further expense in relation to the work to be carried out."

The United States Department of Defence has provided the following explanation of contract holdbacks:[25]

> "Progress payments are a means of providing contract financing for Work-in-Process expenditures with long lead times, often required on Government contracts. Progress payments alleviate undue strain on a Contractor's cash flow by financing a specified percentage of contract costs incurred as work progresses. Contract holdbacks are unreimbursed Contractor costs not funded through progress payments. The amounts are held back, rather than paid as progress payments, to provide assurance that the work will be completed as required by the contract."

It will be noted, however, that the contract clause set out above does not contemplate a retention from progress payments, but rather a lengthy holdback following completion of the finished structure.

53 While there is a certain rationale to the approach, cash retentions of this nature are a poor substitute for a performance or labour and material payment bond. They distort the Contractor's cash flow. By reducing the fund available to pay Contractors, actually increase the risk of default.[26] When presented with such a requirement, Contractors have little choice but to incorporate the resulting cost of funds into their contract price. The retention of a contractual holdback in Ontario strains the Contractor's financial resources, because any contractual holdback arrangement applies over and above the 10% holdback required under the *Construction Lien Act* itself. Moreover, in contrast to the CLA holdback, contractual holdbacks cannot authorize the Contractor to withhold payment from its own subcontractors. Thus, the Contractor may have to bridge the shortfall of funds by drawing on its own line of credit.

54 The cumulative effect of several contracts of this type can be devastating. If a second contractual holdback of 10% is retained, then the Contractor is providing $1 worth of work for only 80¢ in payment. If the Contractor is engaged in five projects of a similar size, then in effect it is in the same financial position as if it were carrying out one of them on an "entire contract" basis (with no payment being made until completion). It has long been recognized that arranging payment on such an "entire contract" basis gives rise to a high risk of Contractor default. It is not in the interest of any owner (whether that owner is a Government or private sector party) for the Contractor to be put in such a position.

55 Further problems are presented where the Government insists on a broad discretion over the use of the holdback. In one recent municipal tender, the city provided for an extraordinary holdback of $200,000, without even specifying to what uses the amount concerned could be put. The provision meant that, in effect, the Contractor was expected to make an interest free loan to the city for a period of one year. The rationale for this "right" is illusive: unless there is a breach of contract (unlikely in the case of successful commissioning) or a breach of warranty, any costs incurred by an owner following start-up and commissioning are normally for the account of the owner.

(g) Use of In-house Contracts

56 The widespread preference of Governments for using their own forms of contract rather than documents, such as CCDC-2[27], that are in more widespread use across the entire construction market also has risk implications and results in a loss of possible sources of supply.[28] Government in-house contracts tend to go far beyond the normal level of give and take that Contractors generally expect to encounter when settling the terms of a construction contract. Moreover, since the tender and RFP process leave little room for Contractor input into the final terms of contract after the award of the contract is made, Government contracts are essentially presented to Contractors on a take-it or leave-it basis. In contrast, documents such as CCDC-2 were in general prepared following a process of consultation with all parties affected by the construction contracting process (from finance through to material suppliers), with result that they were at least intended to incorporate some reasonable balancing of interests.

57 Government drafted mandatory forms of contract vary widely in form, layout and substantive content from one Government to another—and sometimes among different departments or divisions of the same Governmental organization. Where such a customized contract is employed, the Contractor must examine the terms of the contract carefully to determine whether it presents any atypical risk. If so, then the bid price must be adjusted accordingly—and even then, there will be some uncertainty in the Contractor's mind. Ordinarily, such a review would require extensive costly legal assistance—a cost which is a significant deterrent to anyone considering bidding for a contract. Many Contractors will simply refuse to participate where customized (or owner-specific) contracts are employed—either deciding that it is too difficult (or costly) to undertake a risk assessment of a contract, or that even if such an assessment is made, it is impossible to decide whether all additional risks have been properly provided for.

58 The use of customized contracts increases the transaction costs associated with Government contracting. While employing such an atypical contract allows a Government owner to be sure that it has the contract terms that it wants, it will often find that it is unable to attract the top quality Contractors to bid for its work, or that it receives only a few bids in response to a tender or RFP.

59 In our view, there is no practical need for Governments to adopt the customized contract approach. As with any other owner, the Government can simply identify those provisions of the more common forms that are in use in the industry that present an unacceptable level of risk to it. These provisions can then be ousted by a set of properly worded provisions set out as a schedule of "special conditions" or "supplemental terms". Such an approach allows prospective Contractors who might wish to bid for the contract to identify quickly the risks that the Government is seeking to pass over to the Contractor. If they are prepared to bid on this basis, they may therefore price their bids accordingly.

Summary Re One-Sided Contracts

60 One-sided contractual terms are not unique to Government contracting. They are also encountered in many types of consumer transactions.[29] Much can be learned about the role played by one-sided contract terms, by contrasting the consumer market with the Government market for construction. In the consumer market, retail purchasers are individually small-scale customers, who purchase very little of any supplier's total output. For this reason, a retail purchaser has little prospect of dictating the terms of contract. In contrast, the Government market for construction stands at the other end of the spectrum. Federal, Provincial and the larger municipal Governments are all major customers for construction. Although none of them will enjoy actual monopsony power,[30] each has a considerable ability to dictate to prospective suppliers the terms on which it will contract. Governments cannot force any particular Contractor to bid for Government work. However, within certain limits the volume of Government construction is sufficiently great that they effectively force at least some suppliers to take up work on the terms that they prescribe, if those construction firms wish to remain in the construction business.

61 The reason why this is so, and the implications that it has for pricing may be explained as follows: It is an elementary principle of economics that in a competitive market that does not suffer from unequal access to information (what economists describe as "informational asymmetry"), the terms of contracts between sellers and buyers will tend towards an optimal allocation of rights and obligations. However, in a competitive market, all buyers and sellers are price takers. In real world markets, both buyers and sellers have a considerable degree of latitude in how they structure their contractual dealings. Larger customers, such as Governments, are often able to dictate the terms under which they will contract.

62 It is common when commenting upon purportedly one-sided contractual provisions to complain that such provisions are "unfair" and that they "should not be allowed." Realistically, however, it is impossible to assess the "fairness" of a contractual provision in abstract terms. The determination of whether a particular term is "fair", must take into account the price that is payable under the contract and the conditions of the market in which the transaction is conducted. In the consumer context, for instance, it has been noted that customers are often willing to take a chance on the reliability of a product in order to get a break on its price. Similarly, customers who present a high level of risk of default, or who are located in remote or otherwise difficult to service markets, must pay a price premium to obtain supply.[31] Much the same principles apply where the customer dictates terms that appear to favour it more than the terms which prevail normally in the market.

63 The use by a customer of its market strength in an attempt to dictate one-sided contractual terms, it often reflects a desire on the part of the customer to mitigate the transaction costs associated with a particular contractual arrangement, such as the difficulty of proving breach, of securing a suitable remedy, or the need to assess and measure the risk associated with a contract.[32] What has to be understood, however, is that the prevailing prices within a market are fixed in relation to the standard terms that prevail within the market. Provisions that permit the Customer to escape from its obligation to buy (whether by providing that the Customer reserves the right to buy elsewhere, or makes no representation as to the volume of business

that will be transacted, or may terminate the contract unilaterally either because it did not receive funding approval, or simply considers it wise to do so) are inherently unrealistic. As we noted above, a provision is "unrealistic" when it is not reflective of the conditions and assumptions that underpin the prevailing market price.[33]

64 A party can, of course, seek to contract on unrealistic terms. Nevertheless, it does not necessarily follow from that conclusion, that the customer will improve its position by adopting contractual language that departs from the normal expectations and practices of the relevant market place. The commercial reality of one-sided contracts is that they create risk to the Contractor. The inevitable consequences of creating such risk are as follows. First, where a Contractor is prepared to bid in response to a tender or RFP which incorporates such unrealistic provisions, it will necessarily increase the price bid, to reflect the uncertainty and other adverse features that such a contract presents.

65 Second, the effect of insisting upon contracting upon unrealistic terms is to prompt many of the best Contractors in a market to refrain from bidding for Government work. The reasons for this are as follows: It is an axiom of a perfectly competitive market that all sources of supply are homogenous and all products on offer by each Contractor are fungible. Under such conditions there is no benefit in dealing with one Contractor as opposed to another. This is not a characteristic of real world markets, in which some Contractors are almost always better to deal with than others. Top quality Contractors have greater financial strength, are better able to service customer needs, have a better trained workforce, draw upon top subcontractors and material suppliers, are more likely to stand behind their products, and are better at fixing things that go wrong. Similarly, "brand name" products are generally more reliable than their no name equivalents. Since Contractors are not homogenous and since few products are truly fungible, the best Contractors often are able to chose which work they will take up. A good Contractor is likely to reject work that poses a greater degree of risk than other contracts within the same market.

66 The third consequence is the logical extension of the second. Blatantly one-sided contracts increase the risk that the disadvantaged party will default. They also give rise to an adverse selection problem: the only Contractors willing to enter such contracts will tend to a disproportionate extent to be struggling firms, or new entrants to a market that are seeking to learn a business at a Customer's expense. Thus one-sided contracting creates a serious systemic risk to the Customer.

67 In summary, one-sided contacts result in an ironic result. They are intended to insulate Government from risk. In practice, they discourage good contractors from bidding for Government work, and therefore increase the Government's level of risk. In addition, the Government pays more to those Contractors who are prepared to bid on the terms dictated. As a final point, many of these adverse effects are of long-term duration, and will have an impact long after the specific contract is finished and forgotten. Contractors who abandon the pursuit of Government work, often never come back and often give up work across the board. Thus, even if the one-sided approach is abandoned (or never employed) by a particular Government, it may still find that its work attracts far less interest than the size and scope of the Projects concerned would justify.

Risk Transfer

Overview

68 The problem of risk transfer grows out of the problem just discussed—the effort by Governments to impose unrealistic contract terms under their supply agreements. However, there are aspects of risk transfer that set it apart from the more general subject of unrealistic terms of contract. We will begin this analysis by stating certain axioms. First, we recognize that Government must defend its own corner. It undermines its own position, however, when it seeks to impose on Contractors risks that the Government itself is better able to manage, or where it seeks to draft the contract so as to capture windfall gains where the assumptions on which both the owner and the Contractor have priced the contract, prove to have been mistaken.

69 Second, we recognize that Governments have a legitimate concern about controlling cost over-run.[34] Many procurement projects are subject to risks at all stages of their development and execution. Construction contracts demonstrate the point. Planning permission can be hard to obtain. Tight scheduling resulting from the need to meet critical delivery dates means that designs may not be finalised before work starts. The construction process itself may face difficulties e.g. poor weather, defective materials, labour disputes, design changes, Aboriginal land claims, and so forth. All these factors can lead to a project running over time, over budget or both. Even after project completion and delivery, there are risks—such as that buildings become prematurely obsolete, that the life cycle of its critical components may not meet expectations, thus requiring premature refurbishment and thus extra cost. The project contract should stipulate clearly how risks are allocated. Common sense would seem to dictate that these risks should in principle be allocated to the party who is best able to bear and manage them.[35]

70 While there are some risks that are primarily within the control of one party rather than the other, or that are outside the control of both parties, in the preponderant number of cases, both parties have at least some ability to control either the probability that a given risk will be encountered, or to limit the damage that may flow from it. In such cases, the optimal arrangement is to draft the contract so that each party has an incentive to take appropriate reasonable risk avoidance or damage limitation measures.[36]

Examples of the Problem

71 The following list offers a brief description of contract stipulations in the construction area that tend to result in a disproportionate increase in the cost of obtaining building work. Each of them is taken from contracts currently employed by one or more municipalities, school boards, public agencies or other Governmental purchasing entities in the Greater Toronto-Hamilton Area.

(a) Atypical bid security

72 Bid security is intended to protect a Government purchaser against the risk that a Contractor will refuse to accept a contract at the price at which it has bid. Since the conduct of a tender or RFP is both time consuming and expensive, it is understandable that Governments will seek to protect themselves against the risk. For many years, it has been common for Governments to require the delivery of a bid bond at the time of submitting a bid in a tender (at least where the dollar value of the tender is substantial).[37] In recent years, many Governments appear to have concluded that it is too difficult to enforce bid bonds as a security. Consequently, they have begun to seek alternate forms of security. Some now require bidders to deliver a certified cheque for a stipulated amount (e.g. $250,000) as security against the risk of Contractor default. A typical provision will read along the following lines:

> "A cash deposit in the amount of, certified cheque, cash deposit or bid bond for an amount equal to at least 5 per cent of the total amount of the bid shall accompany each bid as a guarantee that if the contract is awarded, the bidder shall execute the contract and provide all bonds or other security contemplated under it. The bid security so deposited with the City shall be retained by the City until the later of:
>
> "(a) in the event that the bidder is the winner of the tender, the delivery of the executed contract and all bonds and other security contemplated under it by the bidder to the City; or
>
> "(b) in the event that the bidder is the runner up in the tender,
>
> "(i) the delivery of the executed contract and all bonds and other security contemplated under it by the winning bidder in the tender to the City; or
>
> "(ii) in the event that the winning bidder defaults in such delivery, and the bidder is notified by the City within the time allowed under the terms and conditions of the tender that it has succeeded to the rights of the winning bidder, the delivery by the bidder of the executed contract and all bonds and other security contemplated under it by the bidder to the City."

73 Compared to using a bond or letter of credit, security in the form of cash or a certified cheque is costly. Certified cheques have an adverse impact on the Contractor's cash flow, as do cash deposits. They may also increase its aggregate borrowing requirement. Any resulting increase in cost will necessarily be passed along to the Government customer. That cost may also reduce competition among Contractors for the work concerned—the cheque requirement simply makes it too expensive for Contractors to compete for that work. The less competition, the higher the final price is likely to be. Security of this kind is also of questionable value to the customer. In contrast, to a bond, a security in the form of cash or a certified cheque is subject to the *Personal Property Security Act*, meaning that the rules governing perfection and priority as set out under that Act apply with respect to the security concerned. Thus once again, the Government increases both its risk and its cost.

(b) The Contractor as De Facto Insurer

74 Contractors are in the business of carrying out construction projects. Obviously, their experience in carrying out such work gives them both sensitivity and understanding of construction related risks. In principle, the ability to manage project risk effectively can provide a decisive competitive advantage to Contractors who anticipate adverse changes, protect themselves from unexpected events and gain expertise to price risk, gain a leading edge.[38] However, the realisation of this commercial advantage is qualified by a range of considerations. In the Government procurement context, the benefit of this advantage is limited, due to the tendency to which the bid price submitted by each Proponent influences the final selection of the Contractor.

75 Even if the Government contracting process was sufficiently fine-tuned to identify good risk managers, the practical capacity of Contractors for risk management is limited. Contractors can manage some risk, but they are not insurers against general construction related risks. Contractors may be properly called upon to exercise reasonable care to avoid risks and to minimize the cost increases that result when risks are encountered. On the other hand, they cannot be expected to act as the de facto insurer of the owner's surveyor, design and environmental consultants, and other professionals who are engaged by the owner to work on the construction project.

76 There are a range of provisions that effectively seek to convert the contract into a *de facto* insurer against mistakes made by other people. In recent years, such provisions have become common in Ontario Government contracting. Examples include the imposition of a requirement that the Contractor review and correct the contract documentation:

> "(a) The Contractor shall review all contract documents, using the degree of care and skill that would be exercised by an experienced and competent Contractor in drafting a contract for its own use. The Contractor shall notify the Owner of any provision of any of the contract documents that is inconsistent with the *Building Code* or any other applicable by-law or statute governing the execution of the work to be performed that would be within the customary knowledge of an experienced and competent Contractor."

A related type of provision reads as follows:

> "(b) Omissions from the drawings or specifications which do not allow for a complete job shall be brought to the Consultant's attention before the Contractor signs the Contract. By signing the Contractor, the Contractor shall be deemed to warrant that the job can be completed as designed.

It is difficult to understand on what basis the Contractor should be asked to verify the work of the Government's own design professional, surveyor, lawyer or other relevant professional advisor. The Contractor did not select those professionals, and has no control over the persons

concerned. Since the Contractor is asked to determine compliance with statutory and by-law requirements or prohibitions, it is put in the position not only of exercising due diligence, but of actually providing legal advice—quite often to the very Government entity that enacted the law in question.

77 Broadly comparable provisions require Contractors to commit to remedy any deficient work carried out by a subcontractor selected by the Government itself. Obligations of this kind arise where for some reason the Government has reserved a right in its favour to nominate subcontractors, which the Contractor is obligated to use. Such a reservation may be necessary, for instance, in relation to the installation of security or telephony[39] systems, where often the installation of the system is within the scope of a standing contractual arrangement between the Government and the nominated subcontractor. Owner-nominated subcontractors cannot properly be viewed to be subcontractors to the Contractor. Rather, their relationship is really one that exists between the subcontractor in question and the Government itself. Quite rightly, Governments may insist that its Contractor stand behind the work carried out by subcontractors that the Contractor has selected. It is not realistic to expect the Contractor to assume liability for a nominated subcontractor of the Government's choosing.

78 Another common type of provision asking the Contractor to insure the Government against the Government's own mistakes deals with the positioning of relevant utility and power lines. It reads as follows:

> "(c) The position of all pole lines, conduits, water-mains, sewers and other underground or over-ground utilities and structures is not necessarily shown or accurately presented on the Contract Drawings. The Owner disclaims all responsibility or liability for verifying such positions of such utilities and structures. Before starting work, the Contractor shall inform itself of the exact locations of such utilities and structures, and shall be liable for any damages, loss, costs or other expense arising as a result of any act or omission in doing so, whether or not the result of negligence, and whether committed by the Contractor or by any other person.

Thus, the Contractor is put in the position of having to verify the information provided by the Government customer or that is provided by way of relevant building department or other official records. Such a requirement greatly increases the cost of preparing and submitting a bid. Many Contractors are unprepared to absorb that cost, and therefore decline to bid. Others simply build a hedge into their price to cover against the risk that the obligation imposes. Related provisions of this kind include the following

> "(d) The Contractor confirms that its bid price for the work to be done under this Contract fully reflects its own investigation and confirmation to its own satisfaction of all local conditions that might affect the tender or its acceptance or performance of the Contract, or the price to be paid under the Contract. The Contractor shall bear and hereby assumes all risk of conditions arising or developing in the course of the work which might or could make the work, or any

items thereof, more expensive or more onerous to fulfill than was contemplated or known when the Contractor submitted its bid in the tender and the Contract was signed. The Contractor acknowledges that it did not and that it does not rely upon any information furnished by any method whatsoever by the Owner or its employees or other agents.

"(e) The Owner assumes no responsibility for the scope and accuracy of the information provided in the geo-technological investigation report. Any information pertaining to soils, bore hole logs and rock probes furnished by the Owner was furnished by the Owner as a matter of general information only. Information contained in the report may be used by the bidders to assist them in an assessment of subsurface conditions. Bidders shall be responsible for the evaluations of the information. Bidders are responsible for conducting on-site evaluation(s) of subsurface conditions and for correlation of the report with site conditions."

79 Provisions that disclaim owner responsibility are generally reinforced by provisions excluding any right to compensation. The following is typical of provisions of this class:

"(f) The Owner shall not be responsible, financially or otherwise, for delays to the Contractor's schedule or sequence of work, or for any costs arising as result thereof, caused by the Owner's operational requirements (including unforeseen emergencies) or by reason of any failure to comply with the requirements of any certificate of approval or interim certificate of approval under applicable environmental legislation."

In other words, even though the Government owner dictates a sequence of work or imposes an unrealistic schedule that results in delay or a cost increase, it is not responsible for the costs that result from doing so. The Contractor is expected to gauge the likely cost impact of the required approach and factor that into its bid price for the work concerned, even though the dictated approach may be so atypical that it is speculative as to what the price implications may be. If the Contractor guesses wrong, then it bears the financial risk. Clearly, provisions of this kind are unlikely to lead to the best possible pricing.

(c) Unfair Allocation of Price Risk

80 Provisions designed to transfer the risk of increases in the price of commodities from the owner to the Contractor are a holdover from the years of high inflation during the 1970s and 1980s. Basic provisions of this kind represent a reasonable price control mechanism. They reflect the fact that the Contractor can exercise considerable control over the cost of the materials and other inputs that it consumes during the course of construction, as for instance by purchasing in advance. However, it is easy to get carried away in drafting such provisions, so that the Contractor is pushed into the position of being expected to guarantee the Government against even those risks of price escalation that are outside the Contractor's control. The following is an example of such a provision:

> "Itemized prices shall include labour, materials, equipment profit and all other charges. No additional mark-ups will be permitted in any circumstances. Without limiting the foregoing, except where the owner otherwise agrees, the Contractor shall be responsible for (and must include in its price an allowance for) all applicable license fees, taxes and other charges, and all costs associated with compliance with the *Building Code* or other applicable Federal, Provincial or municipal law."

Taken at face value, this provision says that the Contractor is responsible for increases in fees even where they come into effect after the date of the contract. It also makes the Contractor liable for any costs resulting from a change in the *Building Code* or any other applicable law. This particular clause came from a municipal RFP. Thus, if the municipal Government in question introduced some new fee to obtain a particular authorization under the *Building Code*, the Contractor would be liable to pay for it. Provisions of this nature are not simply unfair. They add greatly to the cost of getting work done. Faced with this kind of uncontrollable risk, a Contractor must include a suitable hedge in his or her contract. Thus, the owner ends up paying for protection against changes in law that may never occur.

(d) Liquidated Damages

81 A provision of this kind will usually be reinforced by a liquidated damages provision, under which the Contractor agrees that it shall bear a financial penalty of a stipulated amount for each day that the work continues beyond a specified completion date. The time required to secure approval of Government expenditure, to go through the process of a contract competition, to carry out an internal evaluation of the bids received, and to obtain relevant political authorization (e.g. municipal council or school board approval) to proceed with the project very often pushes the commencement of construction beyond a realistic start date to meet the delivery schedule. Thus, a Contractor who quotes a competitive price, undertakes a great deal of financial risk in agreeing to carry out the contract.

82 Major projects cannot be carried out overnight, particularly where they are weather sensitive or extensive approvals are required. A given volume or kind of work requires a readily estimated amount of time to complete. Where the time allowed for a contract is unrealistic, it requires the Contractor to assume not a risk of loss, but a certainty of loss. No sensible business person would be prepared to undertake such a responsibility.

83 To circumvent this problem, many Contractors simply build an allowance into their prices, to cover against the risk of liquidated damage penalties that may apply due to their inability to meet an impossible delivery schedule. Less experienced Contractors may not appreciate the risk of not doing so. If their bids are lower, then the work will go to a Contractor who is more likely to default. Liquidated damages clauses are especially unrealistic where they ask the Contractor to provide what is in effect insurance against the risk of weather related delay or other factors beyond the Contractor's ability to control or anticipate.

(e) Waiver of Liability

84 Provisions of the above kinds are very often reinforced by a blanket waiver of legal responsibility on the part of the Contractor, in which the Contractor agrees to forego any right of recourse against any person who costs it money. The following is a typical provision of this kind:

> "(g) The Contractor waives any claim against and releases the Owner and its agents and advisors from any and all liability arising in relation to any thing, matter occurrence or non-occurrence to which this section applies, on any legal ground whatsoever, and whether arising at law, by statute or in equity. For greater certainty, that waiver shall extend to and include from any claim in respect of any tort, breach or purported breach of contract, or under any principle of restitution arising by reason thereof."

A provision of this sort is likely to scare off any sensible Contractor. The apparent goal of such provisions is to keep the price of professional advisory services down. However, any benefit in that direction has to be off-set against the increase that results in the cost of construction. It is worth pointing out that the Government's professional advisors are the parties best placed to monitor the quality of the work that they do. Contractors who must rely on that work can only guess as to whether due diligence was exercised. Since experienced Contractors will for the most part price their contracts on the side of caution, the Government derives little benefit from the protection that it secures for its professionals.

(f) Structural Faults, Site Conditions, etc.

85 Certain risks related to construction are no one's fault. Even if all persons concerned in a project exercise reasonable diligence, the risk may still arise. Weather related risk, to which reference has already been made, fall within this class. So too do unknown site conditions—particular those that remain undetected even where reasonable site inspection and test drilling has taken place.[40] Provisions of this kind cover the following types of problem:

- Requiring the Contractor to assume all risk related to undiscovered site conditions.
- Requiring the Contractor to assume risk related to the rehabilitation of latent environmental problems not shown to be attributable to the owner.
- Absolving the Government-owner from liability in relation to the accuracy of information that it has provided (e.g. soil tests, plans, etc.).

Similarly problematic are provisions that impose an obligation upon the Contractor to carry out comprehensive site inspection to identify all conditions that may influence the cost of construction, prior to submitting its bid. The following is a common provision of this kind:

> "Any Bidder planning to submit a Proposal is responsible for examining with appropriate care the complete Subcontract Documents and all addenda, and is also responsible for informing itself with respect to all conditions which might in any way affect the cost or the performance of any Work. Failure to do so will be at the sole risk of Bidder, and no relief can be given for errors or omissions by Bidder.
>
> "In addition to examination of the Subcontract Documents, Bidder shall make whatever other arrangements are necessary to become fully informed regarding all existing and expected conditions and matters which might in any way affect the cost or the performance of the Work. Arrangements may be made for visiting the project area by contacting the Owner. Any failure to fully investigate the Jobsite or the foregoing conditions shall not relieve the Bidder from responsibility for estimating properly the difficulty or cost of successfully performing any Work."

86 For instance, in one contract that was brought to our attention, unexpected site conditions (specifically, an undiscovered outcrop of bedrock) meant that blasting work would need to be carried out. The municipal owner was worried that such blasting would aggravate neighbouring property owners. An extensive delay occurred, while the municipality tried to decide what should be done, so that the project could continue. Eventually, it was decided to provide a period of advanced notice to the neighbouring owners, warning that such blasting would occur. The blasting was then required to be carried out during a specified period. The result was a delay of several weeks in the carrying out of construction.

87 The municipality sought to invoke upon a clause in the contract protecting it from liability in relation to scheduling. When the Contractor threatened litigation, a compromise was reached. However, the Contractor made clear that it would never take on another contract with that municipality.

88 In principle, the price paid under a contract should reflect the actual site conditions. Since the actual site conditions sometimes cannot be determined until during the course of construction, allocating the risk of adverse variation to the Contractor means that the Government is trying to get more than it has paid for. It is true that the Government may not have budgeted for cost increases due to adverse variation in site conditions. However, no Contractor can afford to offer a subsidy to its customers. Efforts to shift responsibility to the Contractor are almost certain to result in price escalation. What is worse is that the Contractor will likely assume that the city suspects the existence of serious problems. Accordingly, the risk allowance priced into the contract may well exceed the type of reasonable provision that ought to be made by the Government when determining whether it has the funds to go ahead with the construction project.

89 On occasion, Governments and their agencies have also attempted to limit the Contractor's opportunity to assess risk associated with a prospective contract. Quite possibly there may be legitimate reasons to restrict the number of site visits, the taking of photographs and the carrying out of tests. Unfortunately, each such limitation increases the amount of uncertainty associated with a contract. Such uncertainty will be reflected in the final price. When constraints exist on carrying out tests to assess the risk, and the Contractor is expected to assume the risk, then a Contractor would need to think very carefully before deciding whether to bid on the contract.

(g) Requiring Insurance Against Remote Risk

90 On most Government contracts, the terms of the tender or RFP specify a range of insurance coverage that the contractor must provide. For instance, the Contractor will usually be required to provide Commercial General Liability Insurance, All Risks Insurance, Standard Form Automobile Liability Insurance (perhaps with special riders for heavy vehicles, explosive substances, snow removal or road construction, or towed vehicle coverage, Non-Owned Automobile Liability Insurance. Less frequent but possible are requirements for Aircraft Liability Insurance and Watercraft Liability Insurance, meeting the following requirements, Professional Errors & Omissions Liability Insurance, Pollution Liability Insurance or Environmental Impairment Liability Insurance. Requirements vary from one Government to another, and the amounts specified may well exceed what is currently available in the insurance marketplace.

91 Purchasing insurance against remote risk (in one extreme example there was a requirement to provide coverage for welding related damage in relation to the supply of bathing suits to a municipality's parks department, for use by its lifeguards) simply adds a dead weight cost to the contract.[41] It has no real benefit. Nevertheless, the risk associated with an insurance contract is reflected in the premium that the insurer will charge. However, there is usually a minimum premium for coverage of a given kind, reflecting the transaction costs associated with the policy, payment to hoteliers and so forth. If that minimum premium exceeds the anticipated value of the risk, then there is a dead weight cost. More generally, the transaction costs arising from the procurement of insurance against remote risk constitutes a dead weight cost.

92 In the case of some governmental agencies, there is an apparent disconnect between the agency's risk management and purchasing department. The latter is not authorized to depart from the insurance specified by risk management. The former is not prepared to provide a specific needs assessment related to the individual project, or imposes this obligation on the responsible buyer, who feels (no doubt understandably) that he or she is not properly trained or sufficiently experienced to make such an assessment.

93 All of the above factors tend to discourage Contractors from bidding.

(h) Timely Delivery

94 It is not possible to provide a clear example of this kind of language, because the reasonableness of the time allowed for carrying out the work contemplated in any given contract is specific to that particular contract. Generally, however, this type of provision takes the form of asking for a month's worth of work to be carried out in two weeks, and then providing that if the project is not complete on time, the Contractor will be liable for liquidated damages of, say, $2500 per day. The effect of trying to impose liability for "late" delivery, is obvious: bidders simply add what they anticipate they will have to pay in the way of liquidated damages to the amount of their bids.

(i) Timetable for Reaching Milestones

95 Often there is a need to move quickly with a contract. However, where the time specified for meeting critical milestones is essentially impossible, the effect is to expose the Contractor to an additional risk that will simply be factored into the contract price. The following is an example of such a provision:

> "The Contractor shall provide its final schedule for construction within one (1) week of the award."

This type of provision, although clearly impractical, is nevertheless becoming more and more common in tenders. In the vast majority of cases, Contractors require feedback from their trade Contractors once contracts are awarded, to work out a final schedule. Usually, the final negotiations with the trades take a few weeks or more. In addition, scheduling often requires input from the owner as well as the Contractor.

(j) Arbitrary Warranty Obligations

96 An "arbitrary warranty" forms a term of the contract, where one party insists upon the inclusion of a warranty of a significantly different kind than that which normally applies within the market place by reference to the terms of contract prevailing within the market, or in the absence of such a reference, under the common law of contract or some applicable statute. Suppose, for instance, that the normal level of warranty protection afforded for a contract covering the supply and installation of widgets to be installed as fixtures in a building is one year from the date of installation at the customer's premises. Nevertheless, despite this prevailing custom, in an RFP for the supply of widgets, a Government specifies that a two year warranty be offered. If the Contractor assumes the risk of a two year period, it will have no recourse against its own Contractor during the second year. Obviously, in such a case, the Contractor simply includes an allowance in its price for the risk to which the extended warranty gives rise. A similar problem arises with respect to a provision along the following lines:

> "The Contractor shall provide a maintenance bond in the amount of 5% of the Contract Price to cover any failure of the equipment, fixtures and other tangible goods installed in the facility during the period of four years immediately following the expiry of the Performance Bond."

Where a provision along these lines is included in the contract, the Government ends up paying both the allowance for the extended warranty (which is effectively the consequence of receiving the maintenance bond), plus the cost of the maintenance bond itself.

Summary Re Risk Transfer

97 Generally speaking, there are four different classes of risk that must be dealt with under a contract.

Classes of Contractual Risk

Class	Description
Class I	Risks that are either wholly or partly under the control of the Contractor but not of the Customer.
Class II	Risks that are under the control of the Customer but not the Contractor.
Class III	Risks over which both the Customer and the Contractors have control.
Class IV	Risk over which neither the Customer nor the Contractors have any meaningful control.

For the purposes of this discussion, "control" not only includes the ability to determine whether or not the risk is encountered, but also to mitigate against the adverse consequences that are likely to flow should such an encounter occur.

98 So conceived, common sense would seem to dictate that risks should be allocated as follows: Class I risks should be assumed by the Contractor. Class II by the Customer. Responsibility for Class III risks should be divided between the Contractor and Customer, so that each is encouraged to undertake an efficient level of risk avoidance (i.e. to avoid risk to the extent that the cost of doing so is less than or equal to the probability-discounted cost of each party's share of risk arising). Class IV risk should be allocated on the basis of which party is able to insure against the risk at the lowest cost.

99 There is no doubt considerable truth to the proposition that the Contractor can often devise a work-around solution when such conditions are discovered, that the owner cannot. However, these points over-look the fact that the provisions set out above do not simply require the Contractor to exercise reasonable care and to take appropriate mitigation measures. They transfer the entirety of the risk from the owner to the Contractor. Some Contractors may very well prove willing to assume such a risk—but if they do, they will adjust their bid prices accordingly.

100 The suggestion that attempts to impose conditions such as those set out above generally work against the interest of a municipality is not mere conjecture on our part. It is documented by the warnings that numerous trade associations provide to their members in relation to dealing with conditions of this sort. For instance, in the construction context, the Ontario

General Contractors Association has published a *Guide to Dealing with Onerous Supplementary Conditions*,[42] which (inter alia) recommends that Contractors confronted with unrealistic contract terms pursue a range of measures to have those terms taken out of the proposed contract. These measures include:

- contacting the owner directly,
- having the OGCA do so on behalf of all bidders,
- the submission of qualified bids,
- not bidding on the tender.

Many Contractors opt immediately for the last of these approaches, and abandon pursuit of the contract. Thus, often the Government is unable to appreciate that it has created a problem that may well be costing it money.

101 To avoid unnecessary costs, Governments need to take a critical look at the allocation of risk under their standard terms of contract. If the cost of obtaining protection or a right exceeds the benefit that it affords, then why buy it? Many Government purchasing managers would no doubt argue that once their legal advisor (or risk manager) has suggested that a given provision be included, it is difficult for them to justify a decision not to include the provision in question. While there is a certain truth to this defence, it indicates a mistaken understanding of the role of the lawyer. Lawyers are trained to identify legal risk and to advise as to how to avoid them. They are not necessarily trained to make business decisions. Lawyers who draft a contract should be asked to confirm whether or not the terms they are proposing reflect current industry-wide practice. If the lawyer does not know, he or she should be told to find out and report back. If proposed terms vary from prevailing practice, the lawyer should be required to provide a cost-benefit assessment as to why the suggested change is advisable. If the lawyer cannot do so—even working in conjunction with the municipality's risk management staff—then his or her advice needs to be discounted to reflect its uncertain price implications.[43] Obviously it is advisable for all of these aspects of the contracting process to be documented properly in the file.

102 A one-sided contract sets up the parties for a lawsuit down the road. In recent years, most Government contracting has focused on making tender documents "bullet proof" to minimize the municipality's exposure to the risk of litigation.[44] While that concern is certainly relevant, it is at least equally important to draft the documents in clear language and to avoid including provisions out of step with market practice. A poorly written or one-sided contract may secure supply, but there is little gain if the consequence is to pay well above the market price. Contracts that depart from language that has a settled meaning within an industry make Contractors fear the unknown, discouraging the better Contractors from bidding, and causing those bidders participating in the tender or the RFP to hedge their price against the perceived risk.

103 One-sided contract terms can greatly increase the cost or reduce the choice of supply. Governments need to carry out a cost-benefit assessment of provisions of this kind. For instance, they should consider whether the benefit derived from extensive bonding requirements is sufficient to justify their cost. The tendency to insist on the supply of particular brands of equipment or other goods, rather than generic equivalents, also pushes up the price of a supply contract. It is difficult for bidders to commit to meet an open-ended demand, especially when such a requirement is accompanied by unrealistic restrictions on subcontracting. Most of these provisions reflect the fears of the municipality's legal or purchasing department, rather than the concerns of the department making the request. Building flexibility into a contract to allow the customer the option to obtain highly unlikely services often means that the Contractor will need to pay a stand-by fee to its seasonal workers or other Contractors. And obviously, these costs will have to be borne by the customer.

104 It is self-evident that one-sided contracting will not result in a lower price. The question is, by what amount does it escalate the price of a Government contract. Estimating the precise price impact of risk transfer and other aspects of one-sided contracting on Governments as a whole is difficult, because (while the general pattern of contract practice is similar) contract requirements vary somewhat from one Government to another—and sometimes from one branch of the same Government to another. It is, of course, the cumulative effect of one-sided contracting that is important. For practices such as unrealistic completion dates, coupled with liquidated damages provisions, the prevailing practice appears to be simply to add a sufficient allowance to the prices quoted to cover the anticipated liquidated damages that will be incurred from the stated completion date until a more realistic date for completion. Unnecessary insurance costs are almost certain to be treated as a direct cost-pass-through. In the case of other types of one-sided contractual provision, a more sophisticated approach may be required. For instance, in a rational market, the price impact of any particular risk that is transferred would reflect the probability of the risk arising.

105 Given the wide range in both the number of variables and their prospective magnitude of impact within the context of a given contract, any estimate as to the overall impact on government construction is unlikely to be much more than an educated guess. In the interest of arriving at a conservative figure, we would put the likely cost impact at somewhere in the range of 2 per cent of total construction cost. This percentage estimate does not include price escalation due to the reduction in the number of Contractors willing to bid for Government work, as we consider that question separately below. Nor does it include any allowance for the problems relating to specifications and evaluation process employed in Government contracting, which is considered in detail in the next Chapter of this Report.

Specifications

Overview

106 The term "specifications" describes the technical and performance characteristics and other descriptions of a product or its intended use or application. The fundamental role of material specifications in any procurement transaction is to ensure that the supply that is obtained meets the functional requirements of the purchaser. In some cases, both minimum (necessary) and optimal (desired) features will be set out in the specifications, with separate price quotations being sought for each. Specifications tell the Contractor what is required, and identify the considerations that will be employed in deciding whether that which is supplied is acceptable. This information may be in the form of a description of the physical, functional, or performance characteristics, a reference brand name or both. It may include a description of any requirement for inspecting, testing, or preparing a material, equipment, supplies, or service for delivery. The specifications for a given item may cover a range of issues, including: design, tolerances, environmental suitability, physical and chemical characteristics of the materials; performance and other functional requirements, method of manufacture and (particularly with respect to construction) compliance with a drawing or plan. The specifications will often state the test methods to be employed in assessing compliance.

107 Specifications are one of the most important elements of the purchasing process. They are also among the most contentious. Although specifications serve a necessary purpose, unless care is taken, inexact or overly specific specifications can result in either a great deal of wasted time, or a very uncompetitive contracting process.[45] Ask anyone who is seriously involved in the public procurement process to identify the single biggest cause of public controversy and private dispute with Contractors, and they will almost certainly answer in one word: specifications.

108 Specifications may be incorporated by reference, or through attachment to the solicitation. Specifications should be written so as to not restrict bidding but encourage open competition. They should be drafted with a view towards the goal of maximizing reasonable competition. They should not be used as a covert means of excluding Contractors whose goods and services would be perfectly satisfactory from a functional perspective.[46]

109 The preparation of good specifications is probably the most difficult function in the process. As the Government of Idaho's *Purchasing Manual* states:

> "Inadequate or poorly written specifications are the cause of many bidder challenges and can considerably delay the purchasing process."

Poor specifications lead to dispute. In turn, dispute leads to delay (both in completion and payment), increased costs of contract administration and often costly litigation. For these reasons, the risk of dispute also increases the cost of the contract to the Government. Contractors are in the business of building, not debating. A Contractor who becomes involved in a lengthy specification related dispute may never bid for another Government contract.

110 Specifications should be written so as not to restrict bidding but rather to encourage open competition. The goal is to invite maximum reasonable competition. Specifications provide for quality control: to assure that the quality of an item is suited to its intended use, while eliminating unnecessary features or frills. Clearly written and properly organized specifications within the tender or RFP documents give clear direction to Contractors concerning the technical and performance goals of the municipality, as well as its administrative and financial expectations. They set the tone for a productive relationship between the municipality and the successful Contractor.[47] Incomplete or otherwise poor specifications lead to change orders, the costs of which can be catastrophic. With these thoughts in mind, the following general advice can be given with regard to the drawing up of specifications:[48]

- Specifications should be written to provide for and encourage full competition.
- So far as possible, specifications should be standardized, both as to lay-out and content.
- Procedures should be established for ensuring adequate input by intended users to ensure that an appropriate type and quality of item are ordered.
- Specifications should be reviewed by the purchasing department for form and content prior to publication.
- Ideally, they should also be read by a person who has had no involvement in the procurement project to that point, to confirm that they are comprehensible.
- Specifications should be reviewed with members of the Government's staff who have particular areas of expertise (e.g. financing, legal and risk management), even if these departments are not directly concerned in the purchase.
- Specifications should identify a problem to be solved or a need to be met. They should not seek to dictate a solution to the suppliers. The Government-customer should draw on the expertise of its suppliers. It should allow them to explain how they can meet the Government's needs or solve some specified problem. Such an approach is compatible with the steady advance of technology in our economy.

Examples of the Problem

(a) Over-Specification

111 Preoccupation with satisfying exacting specifications is almost certain to result in high costs.[49] Very often, the specifications set out in Government RFP and tender documents err on the side of demanding that too high a standard be satisfied. Such an approach limits the source of supply, and increases cost. There are, of course, reasons to require a high specification in limited cases. Goods that are to be used under extreme conditions (e.g. in deserts, at high altitude, at sea, or in polar conditions) must be capable of withstanding far greater extremes than those that are normally used in climate controlled facilities. Where the chances of repair are remote, and the adverse consequences of failure are great, higher expenditure to reduce the risk of product failure is readily justified. For such goods, built-in redundancy may be necessary because failure may threaten human life. However, projects of this kind are exceptional.

112 Buyers need to be instructed not to over-specify their contracts. Governments rarely need to purchase goods that meet the exacting demands of, say, the space shuttle program. A Government may well need to procure goods that must be sure to work in times of serious emergency: extremely bad storms, power failures of regional dimension and even terrorist incident. However, for the most part, specification to an industrial grade is sufficient to meet this level of concern.

113 To provide a common basis for bidding, specifications should set out the essential characteristics of the item being purchased, so that all bidders know exactly what is wanted. If an essential requirement is left out of the specification, an award may be made for a product that does not meet the needs of the purchaser. Requiring unnecessary features can result in specifications so restrictive that they can defeat competition and increase the cost of the item.

(b) Change Orders and Surcharges

114 In the construction field, poorly drafted specifications often lead to disputes over change orders and surcharges. This problem is compounded where a Government insists on using non-standard contractual documentation.[50] The time invested by the supplier in analyzing poorly-written specifications, will be built into the bid price. Many good Contractors will simply not bother bidding, because they are not prepared to take the time to work out what the customer has in mind. Bad specifications can also increase the level of risk associated with product usage. According to one study, more than 60% of problems in complex systems arise from incomplete, vague, and poorly written specifications.

115 Problems of this nature are almost always the result of a lack of proper consultation within the customer's organization.

(c) Dictating a Solution

116 In a tender, specifications must set out in detail the product description of what one is seeking to buy. Absent such a clear and comprehensive description, it is impossible to assure that the items being offered are fungible. In an RFP, the specifications are more open ended. The goal of an RFP is to seek alternative ways of dealing with a problem, rather than to specify how the problem must be solved. Care is, of course, required. Often, specifications are inadequate due to lack of market research on the part of the purchasing staff or their client department. Either results in waste of time and effort by all parties concerned.

117 To illustrate the point: Both a hammer and a rock may be used to drive a nail into wood, but the one is a far safer and more precise tool than the other. Clearly, the customer wishes to avoid being inundated with proposals for the supply of frozen bananas and numerous other highly exotic and equally impractical product offerings. On the other hand, it is important to be open to realistic alternatives: a nail gun is much more expensive than a basic hammer. However, it is also a more precise instrument, and it can allow one worker to carry out the same amount of work that would require several workers equipped only with a hammer. One of the goals of research at the pre-tender stage is to identify a range of suitable options for supply, and then to devise specifications that allow bidders to quote prices for each of those suitable options. The United States Naval Air Warfare Center advises as follows, with respect to the preparation of specifications along these lines:[51]

> "A systematic process is essential for [statement of objectives] development. The following steps are an integral part of that process:
>
> "• Conduct market research to determine whether commercial items or non-developmental items are available to meet program requirements.
>
> "• Review the requirement documents which authorize the program and define its basic objectives. Complete a risk assessment and expound the basic objectives of the program to incorporate the major technical and programmatic risks.
>
> "• Review the various DoD/services/joint services requirements documents for program management, acquisition and control impact.
>
> "• Prepare a bibliography citing the specific portions of all applicable governing instructions, directives, specifications and standards with which the program must comply. Keep these requirements to the absolute minimum.
>
> "• Categorize the work described by the program WBS into that which will be done in-house and the objectives of that work which needs to be contracted.
>
> "• For each RFP/contract defined, prepare a [statement of objectives] from the objectives identified."

118 Specifications should, to the extent practicable, emphasize functional or performance criteria while limiting design or other detailed physical descriptions to those necessary to meet the needs of the municipality. However, to keep cost to a minimum and speed the supply process, there is clear merit in specifying that identified needs should be satisfied by standard commercial products whenever practicable.[52] Generally, whether one is using a tender or RFP, it is possible to be sufficiently specific to guide Contractors properly as to what is required, without dictating a particular solution for the problem to be solved. For instance, compare the two following sets of specification for the supply and installation of roll-up doors:

Proposed	Revised	Comment
All doors shall be manufactured and assembled in Canada.	All doors supplied shall be readily available in Canada, and shall be supported by a warranty service provider located within 50 miles of the City Hall.	Canadian content rules add to the cost of supply and violate numerous international treaties and agreements. Local warranty service is relevant to downtime risk.
There shall be an aluminum drip rail above each compartment door with a non-abrasive seal.	There shall be a waterproof, durable (minimum 15 year life expectancy) drip rail above each door with a non-abrasive seal.	The concern with this specification is to control dripping and to obtain a long-life solution to that problem. It is not essential that the drip rail be aluminum.
The doors shall have an anodized satin finish or anodized brushed finish or wet paint finish.	Doors shall be properly finished so as to blend in with outside surfaces of the building. Finishes shall be waterproof and durable (minimum 7 year life expectancy in conditions of frequent precipitation and high humidity)	Again, the concern with this specification is to focus on the underlying concern, rather than to propose a solution.
Magnetic door ajar system must be integrated in lift bar handle and the retainer block to signal open door.	Door must be equipped with automatic door ajar warning system. Warning must display both at door and within control room. Warning system must meet the city's reasonable concerns in relation to fail safe operation.	Security is obviously critical in all public buildings. However, the same level of security can be obtained using a variety of different approaches. There is nothing improper with reserving a right for a customer to exercise reasonable discretion in deciding whether an appropriate Level of comfort as to the viability of the system has been provided.
Every slat must have interlocking end shoes to prevent slat from moving side-to-side and binding the door.	Slats must be designed and manufactured so as to prevent movement from side to side and binding of the door. Proponents must provide test data to demonstrate the effectiveness of the product features incorporated for this purpose.	The original version reads far too much like a design feature adopted by a particular manufacturer. Absent clear engineering advice that the stated method is the only means for accomplishing a given goal, the specification is too prescriptive.

119 The drawing up of suitable specifications is one of the most difficult aspects of the purchasing assignment, in part because the ordering (client) and purchasing departments of the customer may be only vaguely familiar with the range of products on offer within the market. Very frequently, one finds that the specifications used in an RFP or tender can be traced back to some manufacturer's product description. Often, the specifications in question are unrealistically precise in the requirements that they set down, delving into an entire range of specific details that would either be irrelevant to any rational customer, or which require a great deal of technical expertise to place in their proper context. When product description material is used to draw up a specification, one finds that Contractors will be asked to bid to supply equipment that is tied exactly to one of the products available in the market. Other products that may function just as well, and be considerably cheaper, are excluded from consideration.

120 Ideally, the specifications for an RFP should identify needs rather than propose solutions. The adoption of such an open ended approach allows the contracting authority to seek the best solutions available without defining the technologies involved. Such an approach is premised upon the assumption that customers do not know what Contractors have available or what they are planning to bring to market. An RFP which contains tight specifications that limits Contractors to a defined technology thwarts the fundamental purpose of an RFP, with the result that in the end, the contracting authority may get neither the most advanced technologies nor the most cost-efficient solution that meets its basic needs. Allowing the vendors to propose what they think are the best solutions to the facility's problems can enable the institution to receive more suitable proposals and review them more readily. This is where acceptance criteria play a significant role.

121 An illustrative example of the solution-oriented approach to specification drafting can be found in an American RFP issued by a power generating authority in Nebraska, for wind turbines. In that RFP, the basic specification was stated as follows:[53]

> "Nebraska Public Power District (District) intends to expand its power supply by adding additional wind-powered resources to its generation resource portfolio. The District seeks proposals ("Proposals") from Bidders for up to 100 megawatts of wind-powered generation capacity, associated energy and renewable attributes to be located near the District's transmission system."

Later, the District went on to require proponents to:

> "Describe the proposed wind generation equipment. The information contained in the Proposal should include the manufacturer and model of the wind turbines, the size and number of wind turbines, the tower and hub height, turbine blade length, nameplate capacity and any other relevant equipment information. In addition, provide a summary of the commercial operating experience of the wind turbines, the anticipated design life of the turbines in weather conditions similar to those expected for the proposed site and a listing of any performance guarantees and/or

the manufacturer's warranty included. The District requests the Bidder provide specifications of operation including operating temperatures and operating wind speeds. The District also requests the Bidder provide detailed modeling data for all generating equipment."

(d) Mandatory Requirements and Preferred Features

122 Mandatory specifications for a good or service are those specifications that must be offered by a Contractor, in order for its bid to be considered compliant. This is a highly litigious area of the law, in part because Governments generally tend to specify far too many features as "mandatory", and then end-up waiving compliance with some of these requirements when awarding the contract. Other problems in this area are similar to those considered above. Where mandatory specifications are not generic (i.e. where they are tied to a particular product or manufacturer), other quite possibly attractive offers will be excluded from consideration. Anachronistic mandatory specifications risk tying the Government to an obsolete or otherwise out-of-date technology or design.

123 The basic goal behind a mandatory specification is to eliminate the risk that the products offered by Contractors will be unable to meet the performance needs of the Government customer. Product features should be specified as mandatory where they truly describe a minimum specification—that is, the product would not perform properly or be suitable for the use intended without it. Specifications should focus on performance, functionality, durability and maintenance cost. Preference should not be given to a particular design or technology when another would perform just as well. A somewhat related problem is where the specifications impose a "glass ceiling", which prevents Contractors from quoting for a higher specification than the minimum required, even where they are prepared to offer a price that will be competitive.

124 Although the underlying purpose for including most mandatory specifications is legitimate, the inclusion of a large number of mandatory features (or proscribed features, under which a product will be excluded from purchase if it has a particular characteristic) greatly reduces both the openness and transparency of the Government procurement process. In so doing, it discourages many Contractors from even submitting a bid. Generally, a Government-customer will benefit from securing more rather than fewer bids, and from considering a wider range of sources.

125 Even more discouraging from a Contractor perspective are tender or RFP documents that do not make clear what is necessary. Features are described as being "preferred" when in fact they are a minimum requirement. The requirements or prohibitions concerned need to be clearly indicated. In each case, the number of specifications should be kept low.

Summary Re Specifications

126 All customers have difficulty drawing up specifications for goods and services that they purchase infrequently. However, Governments are at a comparative disadvantage vis-à-vis private sector customers because Governments undertake such a diverse range of activities that it is difficult for buyers and other persons involved in public procurement to reach the same level of subject matter expertise, with respect to the products on offer within a market. Since construction services tend to be an atypical purchase for most organizations, including many Government institutions, the problem of drawing up construction specifications gives rise to further difficulties beyond those applicable to ordinary contracts for the supply of goods or services.

127 In the current economic environment, many Government purchasing departments are short staffed. In addition, funding for staff training has been cut back. These trends suggest that specification related problems are likely to increase in the near term.

128 Since the cost of properly managing purchasing is relatively low compared to the amount that is expended—particularly in relation to construction—governments that are considering investment in capital infrastructure would be well-advised to invest in improving the ability of Government purchasing staff to manage the contracts entrusted to their care. Even if staff training funds are limited, there are a number of common sense measures that Governments can employ to increase the level of competition for Government construction projects. These include:

- Specifying off-the-shelf materials and other products where possible.
- When drafting specifications, remember that products undergo progressive improvement, and that new products are always being introduced. Specifications should generally prescribe a minimum performance standard that must be satisfied. It should be left to the Contractor to bring forward products that exceed that standard, but which are nevertheless competitively priced.
- More generally, Governments should draft specifications in the form of stating a need to be met or a problem to be solved, rather than attempting to dictate the solution that Contractors (and other suppliers) must offer, to meet that need or to address that problem.
- Governments should train and instruct staff to use industry standard specifications,[54] rather than to attempt to craft their own standards (i.e. to refer to industry standard specifications or publications where possible, and to federal Government, national standards, trade association and similar organizations, technical societies, etc., where not). Along the same lines, all terms relating to measurements (gauge, capacity, volume, etc.) should be used in accordance with established precedent and trade practice. In general, construction materials and other products are designed to meet such specifications. Specifications that match with what is on offer within a market lead to lower pricing.

- Specifications should commence with a general description and then proceed to specific requirements. Specifications should identify measurable physical, functional, and quality characteristics that meet the performance needs. Provide proper detail regarding relevant characteristics, such as: sizes, physical dimensions, weights, percent and type of ingredients, types and grades of materials, standard of workmanship, or basic design.
- Specifications based on individual product descriptions should be avoided as they reduce competition. Where a specification relates to the goods of a particular of supplier, it should be qualified by a phrase such as "or equivalent". There should be a formalized process for determining such equivalence. Suppliers should be encouraged to confirm equivalence before submitting bids. All tests should be fairly administered.
- Specifications should be drafted using clear, simple language, free of vague terms or those subject to variation in interpretation. The use of abbreviations should be restricted to those in common usage and not subject to possible misunderstanding. They should contain a plain, concise, and definite statement of the essential facts or other necessary information. Related specifications should be gathered at one place in the tender or RFP document, which may be conveniently referenced by prospective bidders.
- Governments should avoid the tendency to ask for products that exceed the practical usage requirements to which the building or equipment will be put. Specifications written to a higher than necessary level result in unnecessarily higher costs.
- Where satisfaction of a particular test is required, make sure that the test is properly understood by evaluators and bidders. Be sure that the test is described appropriately. For instance, do not ask for satisfaction of a particular test "under Canadian winter operating conditions," when the test is one that is administered only under uniform controlled conditions. This guideline is of particular importance in relation to compliance with many environmental standards. Look for standards and test information from professional societies where available.
- So far as possible, both specifications and evaluation criteria should be objective. Specifications that cannot be verified are of little value and results in confusion.

We believe that by employing these relatively simple measures, Governments can increase the level of competition for Government construction work. As we have previously noted, the level of competition for such contracts is an important determinant of the price that the Government must ultimately pay.

129 We now turn to the question of estimating the probable impact of specification and evaluation problems on Government construction cost. Problems of this nature both increase risk to the Contractor and increase the transaction costs associated with Government work. The risk related impact on price resulting from the above specification and evaluation problems is within the general estimate that we have provided in Chapter 4 of this Report. The market concentration impact on price resulting from the reduced number of Contractors who are likely to be prepared to compete in the fact of the specification and evaluation problems discussed above, falls within the market concentration estimate provided in the conclusion to Chapter 6. Here we are concerned only with the transaction cost related price increases.

130 Some transaction costs result in a one time cost incurred by each Contractor, which will be added to their bid prices as a direct cost pass through. For instance, additional legal costs resulting from the need to obtain clarification of atypical contract terms, will result in a legal bill to each Contractor bidding for the contract. Assuming that legal advice can be obtained at an approximate average of $350 per hour (this is considerably below the prevailing rate charged by experienced legal advisors in the GTHA), and that an additional 100 hours of such time are required for a Government contract, this would push up bid prices by about $35,000. On an average $3.5 Million contract, that leads to a 1% increase in the price of the construction contract concerned. Other transaction costs are not incurred prior to bidding, but must simply be provided for in the form of a hedging allowance. In the interests of generating a conservative estimate as to the cost impact of government contracting practices, we will assume that the 1% already mentioned incorporates that hedge.

Integrity of the Competitive Approach

Overview

131 In Canada, most Government construction contracts are awarded through a competitive process, such as a tender or RFP, rather than through the negotiation of a contract with one or two short-listed Contractors. The nature of such a competitive process was discussed by Iacobucci, J. when giving the judgment of the Supreme Court of Canada in *MJB Enterprises v. Defence Construction (1951) Ltd.*:[55]

> "The respondent did not invite negotiations over the terms of either Contract A or Contract B. The tendering process replaces negotiation with competition which entails certain risks for the appellant, such as the effort expended and cost incurred in preparing the bid, and the making of the bid security deposit. Exposure to such risks makes little sense if the respondent is allowed, in effect, to circumscribe this process and accept a non-compliant bid. It was reasonable, on the basis of the presumed intentions of the parties, to find an implied term that only a compliant bid would be accepted."

It may fairly be said that the decision of the Supreme Court of Canada in the MJB case touched of a flood of litigation, which has resulted in many Governments and Governmental agencies greatly tightening the terms governing their tenders and RFPs, so as to reduce the possibility of a claim for the breach of the so-called "contract 'A'" rights of a bidder.

132 As the courts continue to expand the possible grounds on which the Government contracting process can be open to attack,[56] it is probable that efforts to convince a Government that there is no need to take steps to limit its exposure to such litigation will not be successful. There is, however, a reasonable prospect of bringing forward more limited arguments, which are directed towards encouraging Governments not to so undermine the traditional nature of a tender or similar contract competition, as to make it unattractive to the top quality Contractors which Governments should be seeking to carry out their construction work.

Examples of the Problem

(a) Non-Competitive Contract Awards

133 In view of their open nature, tenders and RFPs are the preferred method of public procurement both in Canada and abroad.[57] Even so, contracts need not be awarded by an RFP or tender style competition, in order to be awarded competitively. In the private sector, there is more of a tendency to employ a competitive negotiation approach, in which the customer deals with a few selected prospective suppliers, often haggling with each over what develops into a series of price quotations and playing each one off against the other. This approach has not been much employed in the public sector, for a number of reasons. First, there is tendency to confuse competitive negotiation with direct non-competitive approach (which we will explain momentarily). Second, because competitive negotiation is limited to a select number of possible sources of supply, the approach runs counter to the widely held belief that government contracting should be open. Third, it is also inconsistent with numerous trade agreements, in which governments at various levels have committed themselves to an open procurement process. Fourth, it is labour-intensive

and requires a highly trained purchasing staff. Since many governments invest little in staff training, and have very diverse operations which hinders the development of expertise, any desire to implement a competitive negotiation approach is undermined.

134 Nevertheless, governments across Canada employ non-competitive procurement to an extent that is difficult to justify—in fact, to a much greater extent than the private sector, which makes no similar commitment to the use of a competitive contract award process. The archetype of non-competitive procurement is single sourcing. Problems arise where contracts are awarded on a direct, non-competitive basis. In almost all cases, the direct, non-competitive award approach has been found to lead to the most expensive procurement, even when coupled with negotiation over price with the single supplier concerned. This method is no doubt necessary in emergency situations, and there is no other choice where (as in the case of patented items) there is only one source of supply. However, direct non-competitive procurement is not a sensible choice for routine, elective or scheduled orders.

135 For obvious reasons, direct non-competitive procurement is a controversial method of procurement. It is most frequently invoked only where there is a perceived emergency. However, the definition of "emergency" varies widely. Except in cases of great urgency, we can see little reason why an effort should not be made through some form of competitive negotiation, to determine where there are competitors who might be prepared to supply the same goods or services at a cheaper price. The recent scandal at eHealth underscores the point. During the tenure of former CEO Sarah Kramer, "two thirds of the dollar value of contracts at eHealth were awarded without competitive tenders."[58] At the same time as this story was breaking, the Globe & Mail reported with respect to the Ministry of Health and Long Term Care itself:[59]

> "As The Globe previously reported, the auditor found plenty of problems within the Health Ministry itself. The ministry, he said, awarded contracts without a fair and open process and on the basis of favouritism.
>
> "Consultants not only managed other consultants, but had the authority to hire, sometimes from their own firms. Over a four-month period, an unnamed consultant holding a key management position at the ministry was involved in awarding five additional contracts valued at $1.3-million to his own firm, the report said."

This pattern is consistent with Government across North America. Often the "emergency" supposedly justifying single sourcing is no more than the desire by staff to continue dealing with an existing supplier. For instance, in commenting on a major computer purchase by the City of Toronto, the *Bellamy Report* notes that:

> "In June 1999, happy with Dell, the City ordered 3,500 more computers—without a tender or Delegated Approval Form and without informing Council. Ms. Viinamae may have made the right business decision not to tender, but that is not enough. Spending the taxpayers' money demands transparency and accountability, which in turn requires the right approvals."

According to one American report, nearly 40 percent of all government contract spending in the United States is awarded without competition, and one-bid competitions account for 20 per cent of all supposedly competitive awards.[60]

136 Whether the problem is as bad in Canada as in the United States is not clear. Nevertheless, reports and complaints about single sourcing are quite common in Canada. For instance, in relation to the hiring of advisors in relation to the Brampton Civic Hospital project, the 2008 Report of the Auditor General of Ontario notes:[61]

> "…a competitive selection process was not followed consistently in the engagement of advisers. Over 40% of the advisers in our sample were single sourced. In addition, many consulting assignments were open-ended, without pre-established budgets or a ceiling price."

Later in the same report, the Auditor General commented upon the school maintenance and repair expenses incurred by three selected school boards in Ontario. In relation to one it was noted that:[62]

> "While the third board had good policies in place, it was not always adhering to them. One policy required written quotations from at least three suppliers for any purchase with an estimated value of $5,000 to $49,999. For less costly purchases, verbal quotations from a single supplier would suffice. The consultants that inspected all of the province's schools in 2002/03 identified $1.7 million in high and urgent plumbing needs at three of this board's schools."

Looking at one particular contract relationship, the Auditor General reported that:

> "We also reviewed billings from another plumbing company that was hired without a competition. Between January 2005 and April 2007, the board paid the company $1.5 million. Billings from this company were usually split up among several invoices, each for $5,000 or less. We also found that this vendor had overcharged the board $30,000 because it had double-counted the GST in its billings."

In relation to Ontario Power Generation, the Auditor General reported that:[63]

> "The single-source purchases we reviewed, of such items as temporary staff, equipment, and consulting services, ranged from $110,000 to $2.6 million. We noted that the explanations for single sourcing such large purchases either were not documented or were inadequate to justify not carrying out a competitive process."

137 These are obviously isolated examples. However, the audit process is not set up to identify the full extent of the problems that exist in the procurement operations of any organization. In our view, cases of this kind are likely representative of a more generalized problem—particularly since it is possible to rig an apparently competitive contract competition, even where it has the superficial appearance of propriety.

138 After the publication of the *Bellamy Report*, the City of Toronto made a concerted effort to reduce the number and aggregate amount of contracts that were awarded on a non-competitive basis. In 2007, there were 501 such awards by the city to single sourced suppliers. In 2008, the number was reduced to 182 (a reduction of 63.67%). Even so, the list of single sourced contracts remains impressive:[64]

City of Toronto, Sole Source Purchase Activity By Reason, 2008

Justification	Number	Amount
Emergency	33	$9,072,900
Proprietary	56	$8,728,724
Match existing equipment	19	$3,786,567
Health and safety issues	9	$987,086
Time constraints	35	$8,029,016
Bridging Contracts	21	$2,956,412
Work already completed	1	$55,877
Specialized services	4	$383,198
Cost Sharing	2	$229,200
Ensure Warranty maintenance	2	$395,740
Total	182	$34,624,720

139 The nearly two-thirds reduction in single sourcing at Toronto could no doubt be accomplished at other Governments as well. Studies of bid-rigging have determined that Governments pay as much as 40% above the going market price when purchasing from a cartel. There is no reason to believe that a similar premium is not being paid when Governments single source a contract. This is especially so in the case of contract awarded in response to an emergency. Contracts entered into when the wolves are at the door are often one-side in favour of the supplier, and also often involve minimal oversight.[65] Common sense would seem to dictate that emergency expenditures should be kept to a minimum through properly planned procurement and the monitoring (and replacement) of inventory. Instead, all too often regular maintenance of capital items is deferred, life cycle replacement costs are put off in the hope that worn out and obsolete equipment can be used for a few more years.[66]

140 If only 3% of the total dollar value of all contracts awarded by a Government are single sourced, that would indicate an over-payment by as much as 1.2% across the total Government budget. Of course, single sourcing is only one type of anti-competitive procurement.

141 We would concur with the views expressed in a "Special Report to the City Council" of November, 1998, by Radford Snelding, the City Internal Auditor of Shreveport, Louisiana advanced the view that:

> "Public bidding of government contracts is the way to assure the public gets the best value for its money and further prevents favouritism by government officials or their representatives. If these two goals conflict, the importance of preventing favouritism outweighs the importance of the public body obtaining the best value for its money spent."

While every Government contract no doubt cannot be on a competitive basis, as a general rule competition should prevail. A competition need not be open, but absent compelling reasons (which are rare) in every case there should some form of attempt to compare the offers of different sources of supply.

142 Instead, Governments sometime seem to be heading in the opposite direction. For instance, it is of concern that some of the methods of construction and related procurement by the public sector—particularly, but not exclusively, those associated with AFP transactions—will limit effective competition for this kind of work for decades to come. Long term contractual commitments, which tie up Government work for years on end, or even decades, are no more than a deferred form of single sourcing, and they suffer from the same problems as single sourcing in its purest form. We would argue that competition is especially necessary in the construction field, since the amount of expenditure in that area is so disproportionate to the ordinary contracts entered into by Governments.

143 In saying that competition should prevail we do not mean to suggest that price should necessarily be the only concern. Invariably, there will be some non-price criteria that a bidder must satisfy to obtain the contract (e.g. the provision of a performance bond). Perhaps in certain fields, such as where professional expertise is a paramount concern, these criteria may outweigh price. However, the justification for limiting competition should always be carefully scrutinized. In all cases, the instruction to Government purchasing staff should be, award the contract using the most competitive method possible. And in all cases, elected officials should exercise carefully scrutiny, to see that these instructions are followed.

(b) Reserved Rights

144 Numerous adverse decisions in cases based upon the law of tender have promoted Governments across Ontario to incorporate more and more reserved rights and privileges into their tender and RFP documentation.

145 One of the most common types of clause of this kind confers an apparently arbitrary right to disqualify bids or to admit bids that do not appear to meet the qualification criteria set for the tender or RFP. In a negotiated, private sector contract, it is normal for the customer to deal with two or three possible Contractors, eventually narrowing the choice down through such discussions. At the end, the customer may bolt and deal with some stranger to the original

discussions. Even if this is not done, ultimately, the choice of Contractor may lack any element of transparency. Such uncertainty is an inherent element of the negotiation process. The public contracting process is supposed to be transparent—or, at least, reasonably so. By including arbitrary rights of this nature, the Government suggests to prospective Contractors that there is something irregular about the process. This is enough in itself to encourage many of the best Contractors to walk away from the transaction. If they believe that the process is rigged, they are unlikely to be willing to invest money in what they perceive to be a sham.

146 There is a cost to every business in seeking new work. However, people are likely to be deterred from pursuing work that is disproportionately costly to secure. For instance, few people would be prepared to incur such a cost where there is a reasonable concern as to whether a prospective customer has any serious intention of entering into a contract. Governments need to make clear when they are soliciting bids, as opposed to when they are simply asking for expressions of interest. Many suppliers find the latter too remote from the prospect of a sale to justify the investment of time in sending a reply.

(c) Options and Alternate Bids

147 Another technique employed by Governments in relation to construction contracting is to request bidders to provide a range of alternate bids, each of which relates to a differently configured project, involving a range of optional elements. Suppose, for instance, that a school board proposes to build a new school, but asks bidders to quote prices for certain options that will proceed "if funding allows": specifically, a swimming pool, tennis courts, recreational centre and bleachers for the athletic field. The prices received are as follows:

	Tom	Dick	Harry
High School	15,000,000	**14,750,000**	15,275,000
(a) Swimming Pool	350,000	375,000	295,000
(b) Tennis Courts	50,000	53,000	48,000
(c) Recreation Centre	975,000	1,250,000	750,000
(d) Bleachers on Athletic Field	30,000	32,500	27,750
Total	16,405,000	16,460,500	**16,395,750**
School + (a)	15,350,000	15,125,000	15,570,000
School + (b)	15,050,000	14,803,000	15,323,000
School + (c)	**15,975,000**	16,000,000	16,025,000
School + (d)	15,030,000	14,782,500	15,302,750
School + (a) + (c)	16,325,000	16,375,000	16,320,000
School + (b) + (d)	15,080,000	14,835,500	15,350,750

148 Since the school board gives no indication as to which of the optional features it will select by any order of preference, the school board can simply cherry pick the selection of final features so as to get whichever bidder it would prefer. Go with just the school, Dick wins; build the school and the recreation centre, then Tom wins; build the school with all of the options, then Harry wins. In most cases, we doubt whether anyone intends to use option pricing to cheat the competitive contract award system. However, there is no question that option pricing introduces uncertainty into the contracting process, and that fact in itself will be sufficient to deter many Contractors from pursuing the contract concerned. Much of this uncertainty could be eliminated, simply by having the Government rank its priorities. Unfortunately, very often the Government staff preparing the RFP documentation are either unwilling or unable to do so.

(d) The Process for Pre-qualifying Contractors

149 One of the most contentious areas of Government contracting relates to the pre-qualification process. Ordinarily, competitions for Government work are open (meaning that any Contractor who believes that it qualifies for the contract may bid). In recent years, however, Governments have begun to limit competition to a pre-selected group of Contractors identified by the Government prior to the opening of the competitive process. In this Chapter of the Report, we examine the subject of such pre-qualification as it applies to the construction of new capital infrastructure.

150 Pre-qualification is especially common in relation to construction contracting. As a result, the construction contracting process often begins long before the contract is put out to competition whether in the form of tender or an RFP. Many Governmental authorities now pre-qualify eligible bidders for all major construction projects, and have done so for the past several years. The purpose of pre-qualification is to ensure that the Contractors bidding for construction work have the financial, managerial and technical capability of carrying out the project. Prequalification is often used in relation to public projects, as it allows an initially open (or fairly open competition), which can then be narrowed down to a select field of capable bidders.Obviously, this technique is only useful where the pre-determined criteria for the selection are reasonable, applied fairly and do not improperly exclude qualified candidates on irrelevant grounds. The inevitable effect of per-qualification is to thin out the number of bidders for a proposed contract to get bids from Contractors capable of completing the work to industry standards.

151 The process of pre-qualifying Contractors has always been of great concern to the construction industry. It is necessary to balance:

- the Government's understandable desire to identify Contractors that are qualified to do the work, against
- the clear benefit of not creating a tender or RFP process that excludes qualified Contractors from bidding.

One of the most contentious areas relates to the specification of comparable work. As a general rule in construction, the critical issues in pre-qualification are whether a prospective

bidder has the financial, human and technical resources to carry out a particular project. A prequalification process should be employed to answer this question.

152 A Government derives little benefit when it sets the qualifications to bid too high: If the range of experience required to qualify to submit a bid excludes all local Contractors, then the municipality will be forced to deal with those who are remote to it. Not only is this likely to increase travel and accommodation costs, it may also lead to a lower level of service. It is worth mentioning the opposite situation is more usually the case: Often arbitrary qualifications are a poorly disguised effort at a local preference. For instance, while experience in swimming pool construction may be an advantage for the proponent to be selected for the construction of a competition level swimming pool, it is difficult to see what additional value is obtained by requiring that experience to be in, say, a particular Province.

153 A number of steps could be employed by Governments to minimize the anti-competitive effect of the pre-qualification process. These include:

- Employing where possible, industry accepted approaches towards pre-qualification. For instance, the Ontario General Contractors Association publishes *A Guide to Prequalification of Contractors*, which recommends a number of best practices for conducting and participating in the pre-qualification process. The practices set out in that document are intended to promote a system that is fair, open and transparent, and that reduces the opportunity for dispute and delay.
- Consulting with trade associations (which normally maintain a neutral and balanced position among the competing interest of their members) for guidance as to the type of work that should be considered comparable to the project that the Government is contemplating. Generally, the purpose of referring to prior experience is to confirm that a prospective Contractor has experience with institutional work of a similar, size, schedule and technical specification, not to confirm that it has carried out work exactly matching the work to which the proposed contract relates.
- Basing pre-qualification only on clearly stated criteria.
- Providing a mechanism through which prospective bidders may determine whether they are likely to qualify for the proposed contract competition.
- So far as possible, determining qualification by reference to objectively verifiable criteria.
- Clearly stating if the Government intends to restrict the number of Proponents, and whether a Proponent must achieve a particular minimum score in order to pre-qualify.
- Where the number of pre-qualified Proponents is limited, committing to evaluate all submissions before choosing those Contractors.
- Providing a clear indication as to the weighting to be placed on each of the criteria specified.

(e) Requiring Too Much Detail

154 Asking for Unnecessary Detail as part of the Prequalification or Bidding Process is also a frequent source of Contractor complaint. For one recent municipal tender, the bidders were required to provide an 11 page breakdown, itemizing how the bid price was calculated. Demanding this kind of detail generally serves little purpose. Since the contract was not based on unit pricing, even the possibility of an unbalanced bid offered little justification for the amount of information required. Working out a detailed proposal in this manner is time consuming—particularly since individual Contractors may not have priced their bids in the same manner as imagined by the person who drew up the form of tender. One of the basic goals of the tender process is to simplify the selection of a Contractor. When the terms of the tender impose unreasonable demands for the provision of information, the effect is quite the opposite. Someone has to pay for this kind of detail, and that will invariably be the customer. Worst of all, unsuccessful bidders add the cost of preparing unsuccessful bids to their general overhead costs. As a result, this kind of cost then gets passed along even to customers who have no such exacting demands for information.

(f) Bid Evaluation

155 Evaluation criteria in today's construction documents cover such matters as experience (beyond the minimum level required); an assessment of the Contractor's general level of experience, an assessment of the comparative strengths and weakness of the Contractor's key staff; an evaluation of any proposed methodology put forward by the Contractor; an assessment of the resources available to the Contractor for the purpose of carrying out the project.

156 Although the Government contract award process is intended to be fair, open and transparent, very often evaluation criteria and methodology are structured in such a way, that the criteria of assessment appear open-ended, and to involve too much subjective assignment of points. Such an approach creates an atmosphere of mistrust between the Government-owner and the Contractors who bid for its work. When one talks to Contractors they express concern that the entire process is unfair, and that the decisions made are anything but transparent. Expressions such as "rigged," "fixed," "biased," and the like are heard frequently. Disputes over evaluation are a far too frequent cause of litigation.

157 While some Contractors may bid for any work, the best Contractors often avoid Government contracts due to the perceived inconsistencies or unpredictability of the bid evaluation process. Governments need to devote more attention to the evaluation methodologies that they employ, and to the manner in which evaluations are conducted. A straightforward and fair evaluation based on good specifications will encourage suppliers to bid in future competitions. Some of the measures that might be employed include the following:

- The Evaluation Method and Criteria must be suited to the needs of the customer, and must also be consistent with the specifications for the Contract.

- The method of assessment (the scoring criteria) must be explicit and understood by suppliers and Government staff.
- To deter tampering or favouritism, the method of scoring must also be reasonably objective (although the need to identify explicit criteria must be balanced against the need for flexibility).
- The criteria selected should have a bearing on the value to the owner of the supply that is being made.
- Appropriate weightings should be given (i.e., the weight given to each criteria should be relevant to the type of good or service that is being supplied).
- The criterion that is to be measured should be one for which comparable data is relatively readily available.
- It is better to measure a few select criteria well (logically, these being the most relevant criteria), than to measure a wide range of criteria poorly.
- The criteria selected must be understandable.
- A focus on a few critical considerations, which are tied to the owner's own overall strategic objectives, will lead to a system that is readily understandable and effective.
- The results obtained through measurement should allow meaningful comparison of a Contractor against its competitors, and also against some overall standard of acceptability.
- Factors incorporated into the evaluation should have a rational weighting relative to their importance in relation to the overall project.
- It is highly advisable for the overall scoring system criteria and their relative weightings to be disclosed to bidders before the competition for the contract is closed. In this way, bidders can understand how to best structure their bids. Changing the system of scoring after the close of the bidding process creates the appearance of bad faith, and frequently leads to litigation.
- A critical concern in evaluation is to avoid double counting—rewarding the same positive attributes or punishing the same negative ones repeatedly. For instance, if the following criteria were specified, price, warranty coverage and life cycle clearly overlap, in that life cycle and warranty coverage are integral parts of full life costing.

A reasonable cross-section of prospective suppliers should also be consulted in the process of formulating performance evaluation criteria, to ensure that the criteria selected are realistic. They often are an excellent source of current information. In addition, such approaches will increase their interest, particularly since widespread consultation creates an impression of a fair system.

Summary Re Non-Competitive Approach

158 By adopting measures which discourage competition in relation to Government construction contracts, Governments effectively put themselves in a position in which they consistently deal with Contractors in a concentrated market—that is, a handful of Contractors make up the entire supply side of the market. The same applies with respect to or other suppliers in relation to non-construction contracts. Suppliers in such a market have the potential to influence market price, as for instance by adjusting their levels of production.[67] In a non-concentrated market, the prospect of market entry by new suppliers deters such efforts, but by imposing a concentrated market on themselves, Governments effectively empower the Contractors who deal with them to exact higher than the competitive market price. Suppliers in a concentrated market soon come to know the competition that they have to meet. It is easier for them to monitor each other's pricing strategy. They can gauge the existing contractual commitments of their competitors, and estimate their ability to pursue an additional contract. Thus, even in the absence of any kind of collusive activity, suppliers in a concentrated market are well placed to obtain a better than competitive return. In addition, the public disclosure of Government budget information as part of the annual budgetary approval process—although clearly necessary for public accountability—permits suppliers to determine the Government's price sensitivity, and the upset limit beyond which it is not prepared to contract.

159 The problem of market concentration is worsened by the evident preference of Governments for dealing with larger and more established Contractors, in the selection of winning bidders in RFP and tender competitions. Not only is the supplier market concentrated by the adoption of practices that discourage Contractors from bidding, but the Government then further concentrates the market by limiting competition to those well established firms. There is no doubt a legitimate concern that Governments should take care to recruit Contractors that have sufficient experience, and size and scope of operation, to be able to undertake large complex projects competently. However, that concern has to be balanced against its pricing consequences.

160 However, assessing the actual price consequences that result from market concentration has proven to be a difficult problem for economists. One complication is the fact that real world observations often do not fully conform to theoretical models.[68] Other factors present within an industry may compensate for the adverse effects of concentration. Absent comprehensive comparative data on construction pricing in the GTHA, it is not possible to arrive at a precise estimate as to the probable price consequences of market concentration among Contractors bidding for Government construction contracts. Contrasting the per square cost for Government facilities using published industrial data (such as that offered by RS Means) in comparison to

the costs for similar private sector facilities, suggests that Government construction costs may be significantly higher than what is being paid by private sector owners. In saying this, one must recognize that costs vary significantly from project to project due to quality, complexity and economic climate, selected building components, special needs requirements, specialized equipment or design requirements, specialty finishes and other factors.

161 Looking only at the prices that Governments pay, there can be significant variation from one type of facility to another, and from one locale to another. For instance, figures published by Reed Construction data looking at per square foot costs for jails, courthouses, police stations and post offices in major American cities reveal a surprising level of price variation, as is made clear from the following sample:[69]

	Jail	Courthouse	Police Station	Post Office
Atlanta	236.01	183.11	207.51	119.11
Baltimore	243.60	188.99	214.18	122.94
Boston	301.90	234.26	265.48	152.39
Chicago	300.64	233.25	264.33	151.73
Cleveland	260.34	201.99	228.90	131.39
Average	$268.50	$208.32	$236.08	$135.51

Given the level of uncertainty in this area, the best that one can hope to arrive at is a reasonable and conservative estimate of pricing consequences. Based upon the industrial data that we have looked at, and from conversations with numerous contractors, we believe that Governments are over-paying for construction due to market concentration by an amount in the range of 2% of total construction cost.

Conclusion

162 Pulling all of the above together, in our opinion the annual adverse cost impact resulting from Government contracting terms and practices is substantial within the GTHA.

Impact of Government Contract Terms and Practices on Aggregate Construction Expenditure

One-sided contract terms	2%
Increased transaction costs from specification and evaluation problems	1%
Anti-competitive contracting practices	2%
Total impact on price to Government	5%
Estimated annual Government expenditure on construction in the GTHA	$2,630,000,000
Annual Cost of Government Contract Terms and Practice	**$131,500,000**

It will be noted that in gauging this impact, we have consistently made conservative assumptions. It may therefore be safely conjectured that if anything, the estimate of $131.5 Million in potential savings understates the case. However, for the sake of argument, let us assume that we have exaggerated our estimates, so as to lead to a figure twice the actual level. That still means that a change in approach to Government contracting has the potential to generate a saving for the GTHA taxpayer of almost $66 Million.

163 To understand the public policy implications of paying more than the market price, let us put the price impact of $131,500,000 in its proper perspective. At the beginning of this Report, we noted that the 2008 growth in infrastructure deficit at the City of Hamilton was on the order of magnitude of $100 Million. If $131.5 Million could be saved, that would allow that problem to be corrected completely, while leaving a further $31.5 million over to solve the corresponding problem at another good sized city.

164 In our experience, public servants across Ontario are hard-working and intelligent people, and they certainly are no less so than their private sector counterparts. It is doubtful that any elected official or any member of the public service would knowingly pursue a course of contracting practice which results in higher prices than what should be available for a customer of comparable purchasing power. Often, however, such practices can result from a lack of understanding on the part of Government as to the commercial implications of the contracting approach that it adopts. In a leading English text on construction insurance, it is said that:[70]

> "The construction industry … is bedevilled by a savage trinity of forces which are essentially misunderstandings: clients of the industry misunderstand its ability to deliver problem-free products; society as a whole misunderstands the role of insurance; legal tribunals misunderstand the special nature of the construction milieu."

Much of the discussion in this Report focuses on misunderstandings of this nature. The problem with the present system of Government construction procurement is that too often, public sector buyers have little understanding of the factors that influence the prices charged by private sector entities. If it is true that very often in business, disputes arise because neither side understands the other's perspective, then the creation of a process in which such critical information can be exchanged can lead to a mutually satisfactory solution that protects the interests and addresses the concerns of each party.

165 The reason why this is necessary may be simply stated. Too often, public sector buyers have no understanding of the factors that influence the prices charged by private sector entities. Such a lack of understanding results from the fact that Governments and businesses each play different social roles. Government staff are expert in the design and delivery of public programs and services. They are not attuned to the kinds of consideration that will influence a commercial decision as to whether to bid for a contract, nor do they understand the pricing implications that are implicit in various contracting options. At the same time, many private sectors firms bidding for Government work have little understanding of the manner in which Government purchasing decisions are made, nor the types of concern to which Government is subject as a customer. Thus, their operational world views—what are sometimes called paradigms—are completely dissimilar.

166 For instance, in relation to risk, the Report discusses how Governments have sought to transfer to their suppliers all risk relating to matters outside the control of Government. It notes that many of the risks concerned are as much outside the control of the contractor as the Government. Such risk allocation results in many suppliers refusing to tender for Government work. Further, the Report cautions that those who do will likely build a hedge into their bid prices, as a protection against the risk assumed.

167 To overcome the problems that we have discussed, contractors and other suppliers should work with governmental organizations to develop a better understanding of each others operations. The goal of this process would be bring forward revised contract language and practices that are broadly acceptable to Government, which will allow contractors and other suppliers to offer competitive bids for Government work.

168 Ultimately, it is in the interest of both Government and its suppliers for the public procurement system to work well. In Canada, we have attained a level of honesty in Government contracting that is the envy of most of the World. Nevertheless, there remain serious problems with the process, which lead to frequent dispute and to significantly higher costs for Governments than prevailing market conditions necessitate. Government and its suppliers (whether construction Contractors or other sectors of the economy) could benefit from learning to work together more cooperatively—as has been done in the private sector—to improve the quality and reliability of the supply chain. This general observation applies with respect to construction as much as to any other line of procurement.

Endnotes

1 The term "Greater Toronto-Hamilton Area" (or GTHA) is often used to describe the broader conurbation stretching from Oshawa to Hamilton. For the purpose of this Report, we define the GTHA as encompassing the City of Toronto, the four surrounding Regional Municipalities (Durham, Halton, Peel and York) and the City of Hamilton.

2 Association of Municipalities of Ontario, "Understanding Canada's Municipal Infrastructure Deficit," November 20, 2007, Press Release. A 2008 study, "Infrastructure Investment: The Foundation of Canadian Competitiveness," released by the Institute for Research on Public Policy, placed the estimate at up to $200 billion. Consistent with the general approach of this Report to err on the conservative side in discussing the magnitude of problems, we have relied upon the lower estimate.

3 Vince Versace, "Canada's infrastructure deficit just part of the story, says Canadian Construction Association," November 26, 2007, *Daily Commercial News*

4 All information relating to the City of Hamilton in this Report is taken from its budget Web pages, each of which is accessible through: http://www.myhamilton.ca/myhamilton/CityandGovernment/

5 For instance, according to its Web site, Infrastructure Ontario (a Crown corporation which manages the bulk of construction for the Government of Ontario) currently has some 23 projects under construction, the vast majority of which are hospitals. The total value of this construction activity appears to be in the range of $5 Billion. Out of these 23 projects (eight of which are located in the GTHA, which has the largest concentration of construction Contractors in Canada), one Contractor has won 10 of the contacts, while four others have collectively won a further 12.

6 Source: Ministry of Transportation of Ontario, 2006 Transportation Tomorrow Survey

7 Australian Information Industry Association Limited, *Intellectual Property: Maximizing the Mutual Benefits of Intellectual Property Developed Under Government Contracts*, (Deakin West, ACT, Aust.: 2006) pp. 29 seq.

8 The Federal Government's Policy on Title to Intellectual Property Arising Under Crown Procurement Contracts (Ottawa: 2000) states: "It is the policy of the Government of Canada that the Contractor be the owner of any Foreground [IP] created by the Contractor arising by virtue of a Crown Procurement Contract, subject to "Exceptions" as set out in Section 6."

9 "Designing Tenders to Reduce Bid Rigging: Helping Governments Obtain Best Value for Money," at p. 7, on-line at: www.oecd.org/dataoecd/36/40/42594504.pdf

10 Derived From Statistics Canada Pub. 61-205, Table 2-18, "Capital and Repair Expenditures, Canada—Public Administration"

11 R. Flanagan, G. Norman, *Risk Management and Construction*, (Oxford: Blackstone Press, 1993) p. 1

12 David Baldry, "The evaluation of risk management in public sector capital projects," (1998), 16 *International Journal of Project Management* 35

13 For a survey of a cross-section of the foundation literature in this area, see: L. Epstein, "A Disaggregate Analysis of Consumer Choice under Uncertainty," (1975), 43 *Econometrica* 877; D. Carlton, "Contracts, Price Rigidity, and Market Equilibrium," (1979), 87 *Journal of Political Economy* 1034; O. Williamson, "Transaction-Cost Economics: The Governance of Contractual Relations," (1979), 22 *Journal of Law and Economics* 233; Martin L. Weitzman, "Efficient Incentive Contracts," (1980), 94 *The Quarterly Journal of Economics* 719; S. Shavell, "Damages Measures for Breach of Contract", (1980), 11 *Bell Journal of Economics* 466; G. Gegax, J. Tschirhart, "An Analysis of Inter-firm Cooperation: Theory and Evidence from Electric Power Pools," (1984), 50 *Southern Economics Journal* 1077; P. Joskow, "Vertical Integration and Long-Term Contracts: The Case of Coal-Burning Electric Generating Plants," (1985), 1 *Journal of Law, Economics, and Organization* 33; Scott E. Masten, Keith J. Crocker, "Efficient Adaptation in Long-Term Contracts: Take-or-Pay Provisions for Natural Gas," (1985), 75 *The American Economic Review* 1083; S.E. Atkinson, J. Kerkvliet, "Measuring the Multilateral Allocation of Rents: Wyoming Low Sulfur Coal", (1986), 17 Rand Journal of Economics 416; M. Machina, "The Economic Theory of Individual Behavior Towards Risk: Theory, Evidence, and New Directions", (1983), Stanford University: Center for Research and Organizational Efficiency; R. Hubbard, "Supply Shock and Price Adjustment in the World Oil Market," (1986), 101 *Quarterly Journal of Economics* 85; S. Masten, "Institutional Choice and the Organization of Production: Make-or-Buy Decision", (1986), 142 *Journal of Institutional Theoretical Economics* 493; S. Masten, K. Crocker "Efficient Adaptation in Long-Term Contracts: Take-or-Pay Provisions for Natural Gas", (1986), 75 *American Economic Review* 1083; P. Aghion, P. Bolton, "Contracts as Barriers to Entry," (1987), 77 American Economic Review 388; J. Williams, "Future Markets: A Consequence of Risk Aversion or Transaction Costs?", (1987), 95 Journal of Political Economy 100; V. Goldberg, J. Erickson, "Quantity and Price Adjustment in Long-Term Contracts: A Case Study of Petroleum Coke," (1987), 30 *Journal of Law and Economics* 369; P. Joskow "Contract Duration and Relationship-Specific Investment: Empirical Evidence from Coal Markets," (1987), 77 *American Economic Review* 168; M. Riordan, D. Sappington (1987), "Information, Incentives, and Organizational Mode", 102 *Quarterly Journal of Economics* 243; S. Masten "Minimum Bill Contracts: Theory and Policy", (1988), 27 *Journal of Industrial Economics* 85; L. Alston, W. Gillespie, "Resource Coordination and Transaction Costs: A Framework for Analyzing the Firm/Market Boundary", (1989), 11 *Journal of Economics Behavioral and Organization* 212; Maria Paz Espinosa, Changyong Rhee, "Efficient Wage Bargaining as a Repeated Game," (1989), 104 *The Quarterly Journal of Economics* 565; S. Pirrong, "Contracting Practices in Bulk Shipping Markets: A Transactions Cost Explanation", (1993), 36 *Journal of Law and Economics*, 937; B. Lyons, "Contract Specific Investment: An Empirical Test of Transaction Cost Theory," (1994), 3 *Journal of Economics & Management Strategy* 257; H. Sheianski, P. Klein "Empirical Research in Transaction Cost Economics: A Review and Assessment," (1995), 11 *Journal of Law, Economics, and Organization* 335; B.R. Lyons, "Empirical relevance of efficient contract theory: inter-firm contracts," (1996), 12 *Oxford Review of Economic Policy* 27; F. Lafontaine, M. Slade, "Retail contracting: Theory and Practice," (1997), 65 *Journal of Industrial Economics* 1; S. Saussier "Transaction Cost Economics and Contract Duration: An Empirical Analysis of EDF Coal Contracts", (1999), 65 *Louvain Economic Review* 3

14 B. Mulholland, J. Christian, [1999] *Journal of Construction Engineering and Management* (January/February) 8

15 For instance, the Federal Government's $4 billion Infrastructure Stimulus Fund is allocated on a *per capita* basis, with Ontario receiving approximately $1.56 billion over two years. It offers contributions to municipalities of up to 50% of eligible project costs. This infrastructure package also includes $2 billion for colleges and universities and a $1 billion Green Infrastructure Fund to finance "sustainable energy infrastructure". The Province also contributes matching assistance to the Federal funding.

16 For instance, the Juravinski Cancer Foundation raised over $16.1 million dollars during its Hope Can't Wait! Campaign to support a major expansion at the Juravinski Cancer Centre, completed in 2004. Nevertheless, as important as these contributions are, the lion's share of capital funding comes from the Province.

17 "Five Year Financial and Statistical Review, on-line at: http://www.myhamilton.ca/NR/rdonlyres/7EABE3B4-FCC3-4379-A332-004C14BFE3B2/0/2008FinancialReport.pdf

18 62% of aggregate Government-owned infrastructure is owned at the municipal level, compared to 23% at the Provincial level and 15% at the Federal level.

19 All information in relation to Infrastructure Ontario is taken from its Website at: http://infrastructureontario.ca/

20 This somewhat simplistic assumption grows out of the word of the American economist Joseph Schumpeter, who argued that the services provided by private sector financial intermediaries—mobilizing savings, evaluating projects, managing risk, monitoring managers and facilitating transactions—are essential for technological growth and economic development. See, generally, Robert G. King and Ross Levine, "Finance and Growth: Schumpeter Might be Right," (1993), 108 *The Quarterly Journal of Economics* 717

21 Michael Power, *The Risk Management of Everything: Rethinking the Politics of Uncertainty*, (London: Demos, 2004)

22 Penny-Anne Cullen, Bob Butcher, Richard Hickman, John Keast, Miguel Valadez, "The Application Of Lean Principles To In-Service Support: A Comparison Between Construction And The Aerospace And Defence Sectors," (2005), 2 *Lean Construction Journal* 87

23 See, generally, Dag Morten Dalen, Espen R. Moena and Christian Riisa, "Contract renewal and incentives in public procurement," (2006), 24 *International Journal of Industrial Organization* 269

24 See, generally, Torben M. Andersen, Morten Stampe Christensen, "Contract renewal under uncertainty," (2002), 26 *Journal of Economic Dynamics and Control* 637; Keith J. Crocker, Scott E. Masten, "Mitigating Contractual Hazards: Unilateral Options and Contract Length," (1988), 19 *The RAND Journal of Economics* 327

25 Inspector General of Dept. of Defense, "Reporting Contract Holdbacks on the DoD Financial Statements," (Arlington: Virg.: November 17, 1997)

26 D.R. Beaumont, "Assuring Performance in International Construction Contracts," (1999), 19 *The Construction Law* 5

27 The stipulated price contract approved by the Canadian Construction Documents Committee and endorsed by numerous owner, Contractor and other trade organizations across Canada. In per capita terms, Hamilton spends approximately $282. Toronto per capita expenditure is approximately $187. A weighted average of these figures would suggest a total regional expenditure in the range of $1.3 billion at the municipal level. However, taking into account that much of the region is occupied by newer municipalities, which in general have less in the way of infrastructure spending requirements, we have preferred to go with a more conservative estimate, as discussed below.

28 The use of CCDC documents is sufficiently common to allow these documents to be fairly described as setting out the customary terms for construction in Ontario. Even so, there are no true comprehensive "standard" construction contracts in Ontario that enjoy close to universal use. Moreover, even when documents such as CCDC-2 are employed, they very often are modified through the attachment of special conditions and similar modifications. Governments depart from ordinary practice by insisting on the use of their own contracts, which entirely replace the normal CCDC wording.

29 See, generally, L. Bebchuck, R. Posner, "One Sided Contracts in Competitive Consumer Markets," (2005), 104 *Michigan Law Review* 827

30 A monoponsy is a market in which goods or services are offered by several sellers but there is only one buyer.

31 See, for instance, David Caplovitz, *The Poor Pay More: Consumer Practices of Low-Income Families*, (New York: The Free Press, 1967); "Poor? Pay Up," *The Washington Post*, May 18, 2009; Matt Fellowes, "The High Price of Being Poor," *Los Angeles Times*, July 23, 2006

32 See, generally, B. Klein, "Transaction Cost Determinants of 'Unfair' Contractual Arrangements, (1980), 70 *Papers & Proceedings of the 92nd Annual Meeting of the American Economic Association* 356

33 Ernst Fehr, Simon Gachter, Georg Kirchsteiger, "Reciprocity as a Contract Enforcement Device: Experimental Evidence," (1997), 65 *Econometrica* 833

34 In fact, it is worth noting that the North American construction industry has been highly innovative in working with government to develop balanced risk-sharing regimes, which encourage both parties to take reasonable measures to control cost escalation. See, for instance, Roozbeh Kangari, "Risk Management Perceptions and Trends of U.S. Construction," (1995), 121 *Journal of Construction Engineering and Management* 422.

35 John Davies, *Risk Transfer in Private Finance Initiatives*, (London: DTI Economics & Statistics Directorate, 2006)

36 Martin L. Weitzman, "Efficient Incentive Contracts," (1980), 94 *The Quarterly Journal of Economics* 719

37 Concerning the underlying economic premise of bid security and similar measures, see: Dirk Kruegera, Harald Uhligb, "Competitive risk sharing contracts with one-sided commitment," (2006), 53 *Journal of Monetary Economics* 1661

38 See, generally, Robert J. Chapman, "The controlling influences on effective risk identification and assessment for construction design management," (2001), 19 *International Journal of Project Management* 147; Stephen Ward, Chris Chapman, "Transforming project risk management into project uncertainty management," (2003), 21 International Journal of Project Management 97

39 A telephony system should not be confused with a simple telephone system. Telephony encompasses the more general use of equipment to provide voice and data communication over distances, specifically by connecting telephones to each other and to a computer system.

40 Brad Carter, "Construction Risk Management," University of Oklahoma, Department of Construction Science, "Research has showed that cost and time targets are often missed due to unforeseen events that even an experienced project manager cannot anticipate. These events are known in advance, but their extent could often not be quantified. For example, industrial disputes, delayed decisions, or changed ground conditions may all be anticipated, but their likelihood and impact are hard to predict with any precision as no two construction projects are the same; this makes it important to identify risk sources for each project."

41 The municipality in question deleted this insurance requirement when complaints were made. However, it is common to many types of insurance stipulated in a tender or RFP even though such insurance will confer very little benefit.

42 January 2007

43 See, generally, Paul Emanuelli, "Preventative Law: Good medicine for public purchasers," Summit, March/April, 2008, p. 2

44 See, for instance, International City/County Management Association, *Bullet-Proof RFPs*, (Washington: ICMA, 2003); *Bulletproof RFPs IQ Report E-Document*, (Washington: ICMA, 2003)

45 A number of very useful resources in relation to specification writing may be found at the Web page of the Construction Specifications Institute. Go to: http://www.csinet.org/s_csi/index.asp

46 Idaho Department of Purchasing, "Developing Specifications," §2, Definition of Specifications, at http://adm.idaho.gov/purchasing/manualsforms/6_Specifications.pdf

47 M. McRobb, *Specification Writing and Management*, (New York: Marcel Dekker, Inc., 1989)

48 See, generally, National Association of State Procurement Officials, *State and Local Government Purchasing: Principles and Practices*, (Lexington, Ky., 2001) Chapter 5

49 S. Kelman, Buying Commercial: An Introduction and Framework (1998), 27 Pub. Cont. L.J. 249; A. Gore, *The Best Kept Secrets in Government, A Report to President Bill Clinton, National Performance Review*, (1996), at p. 14: Jockey International "declined to bid on Government business ... because the solicitations asked them to manufacture a T-shirt to unique specifications and provide private sensitive pricing data."

50 See, for instance, Vince Versace, "Ontario Lottery and Gaming Corporation controversy highlights need for standard contracts," *Daily Commercial News*, September 15, 2009

51 At: http://nawctsd.navair.navy.mil/Resources/Library/Acqguide/soo245d.htm

52 Idaho Department of Purchasing, "Developing Specifications," §8 Use of Functional or Performance Descriptions, at: http://adm.idaho.gov/purchasing/manualsforms/6_Specifications.pdf

53 Nebraska Public Power District, RFP No. 07020, "Wind-powered Energy Generation Project for Nebraska Public Poser District," July 16, 2007 at: http://www.nppd.com/wind_Development/rfp.pdf

54 See, for example, the Spec-Check Web page at: http://www.spec-check.com/index_whatweoffer.cfm

55 [1999] 1 S.C.R. 619

56 See, for instance, *Bot Construction Ltd. v. Ontario* (Ministry of Transportation), [2009] O.J. No. 3590 (Ont. Div. Ct.)

57 New Zealand Controller and Auditor General, *Procurement Guidelines for Public Entities*, (Wellington: 2008) at ¶5: "In principle, advertising an open request for tender or proposal should be the preferred method for higher value and/or higher risk procurement (quadrants 2, 3, and 4 of Figure 2). It offers all interested suppliers fair and equitable opportunity, and allows a range of competing offers to be evaluated when assessing value for money. However, the method should be appropriate to the market for the particular goods or services, and the circumstances of the procurement. These considerations may mean that an open call for tender or proposal is not practicable or cost-effective, or may not produce the best procurement outcome."

58 Karen Howlett and Katie-Marie Gardner, *Globe & Mail*, Thursday, October 8, 2009

59 ibid

60 Testimony of Scott Amey of the Project on Government Oversight on "Waste, Abuse, & Mismanagement: Calculating the Cost of DHS Failed Contracts" before the House Committee on Homeland Security's Subcommittee on Management, Investigations and Oversight, September 17, 2008

Testifying Before the New York City Council's Education Committee, New York City Comptroller William C. Thompson, Jr. Tuesday, November 21, 2006 said: "Only six years ago, the use of non-competitive bids was relatively rare. Between 2000 and 2004, which includes the period in which the Board of Ed was transformed into the Department of Education, the value of those contracts skyrocketed from $700,000 to $47 million dollars. In the wake of my office's investigation into the Snapple contract, that figure declined to $27 million for the past two years, but if you use the $700,000 benchmark, that's still far too much." Available on-line at: http://www.comptroller.nyc.gov/press/testimonies/11-21-06_DOEnon-comp-contracts_testimony13.pdf

61 at p. 105

62 at p. 354

63 at p. 432

64 Staff Information Report, March 27, 2009, on-line at: http://www.toronto.ca/legdocs/mmis/2009/gm/bgrd/backgroundfile-20226.pdf

65 Hope Yen, "FEMA wasted millions on no-bid contracts," USA Today, September 10, 2008: "The government wasted millions of dollars on four no-bid contracts it handed out for Hurricane Katrina work, including paying $20 million for a camp for evacuees that was never inspected and proved to be unusable, investigators say. A report by the Homeland Security Department's office of inspector general ... is the latest to detail mismanagement in the multibillion-dollar Katrina hurricane recovery effort, which investigators have said wasted at least $1 billion. ... It found that FEMA wasted at least $45.9 million on the four contracts that together were initially worth $400 million. FEMA subsequently raised the total amounts for the four contracts twice, both times without competition, to $2 billion and then $3 billion."

66 See, generally, Pinar Keles, Joseph C. Hartman, "Case Study: Bus Fleet Replacement", (2004), 29 *The Engineering Economist* (Issue 3) p. 253

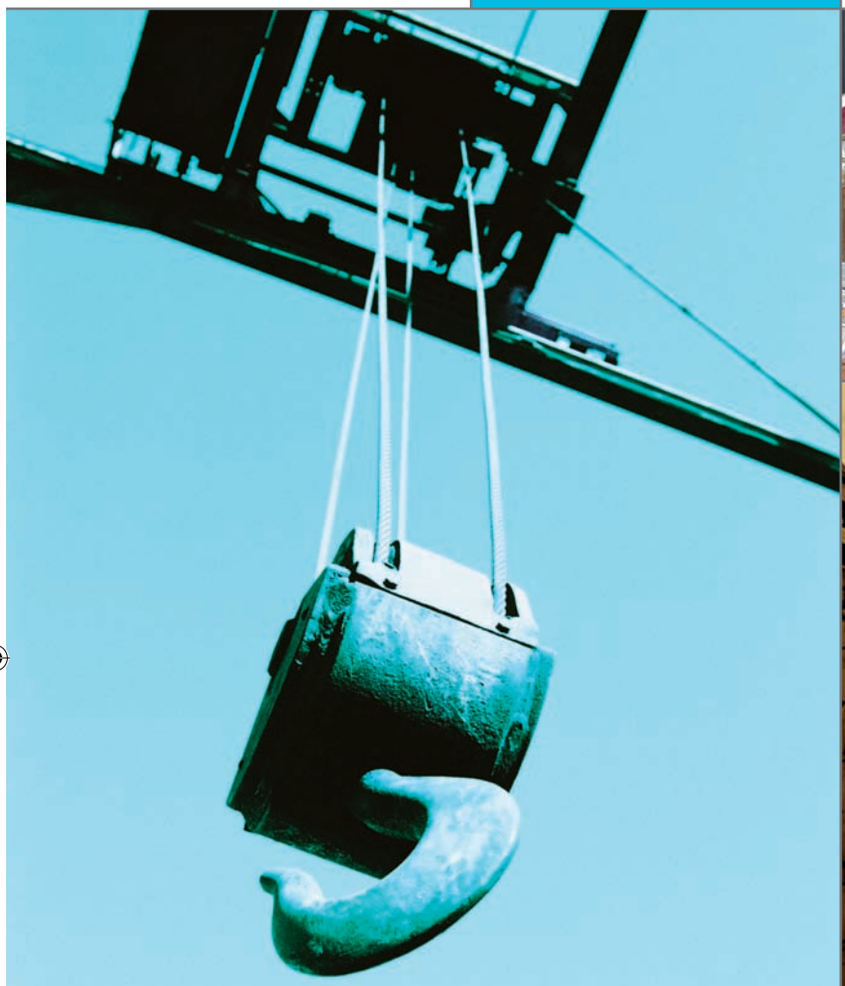
67 See, generally, J.H Landon, "The Relation of Market Concentration to Advertising Rates: The Newspaper Industry, (1971), 16 *Antitrust Bulletin* 53; Severin Borenstein, Nancy L. Rose, "Competition and Price Dispersion in the U.S. Airline Industry." (1994), 102 *Journal of Political Economy* 653; Steven Morrison, Clifford Winston, "The Dynamics of Airline Pricing and Competition." (1990), 80 *American Economic Review* 389

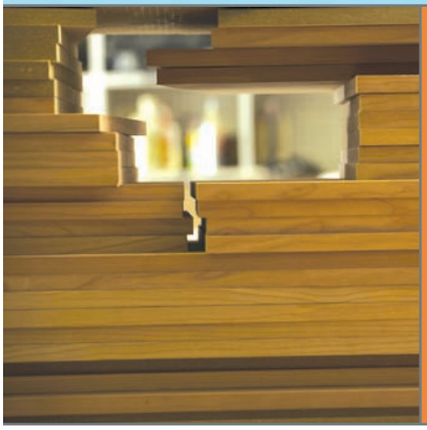
68 See, generally, Joanna Stavins, "Price Discrimination in the Airline Market: The Effect of Market Concentration," (1996), Federal Reserve Bank of Boston, on-line at: http://www.bos.frb.org/economic/wp/wp1996/wp96_7.pdf; United States General Accounting Office, Report to Congress on Beef Industry Packer Market Concentration and Cattle Prices, (Washington: GPO, December 1990)

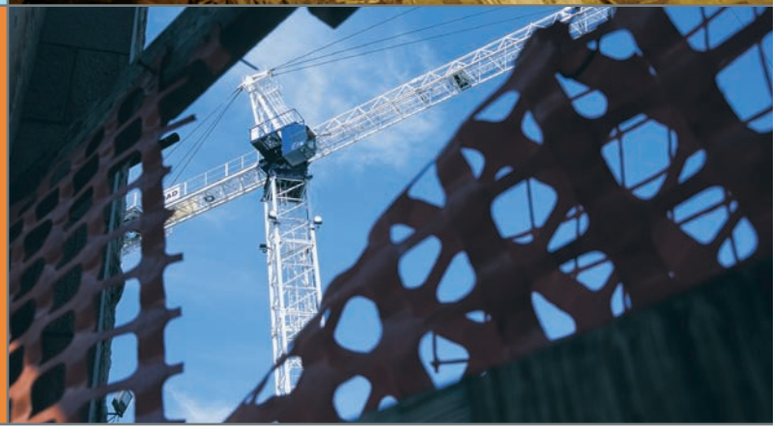
69 Construction Industry Update. April, 2009

70 Nael Bunni, *Risk & Insurance in Construction*, (London: Spon Press, 1986), Foreword to the First Edition, by Peter Miller, xv

RCCAO members include: Carpenters' Union • Greater Toronto Sewer and Watermain Contractors Association • Heavy Construction Association of Toronto • International Union of Operating Engineers, Local 793 • International Union of Painters and Allied Trades, District Council 46 • Joint Residential Construction Council • LIUNA Local 183 • Residential Carpentry Contractors Association • Toronto and Area Road Builders Association







RCCAO
25 North Rivermede Road, Unit 13
Vaughan, Ontario L4K 5V4
Andy Manahan, executive director
E manahan@rccao.com P 905-760-7777

View this report and more at
www.rccao.com