

Final Report

Submitted to:

*Commission d'enquête sur l'octroi et la
gestion des contrats publics dans l'industrie de la construction*

Project title:

***International Experiences in
Collusion and Corruption in the Construction Industry***

Submitted by: Carlo Morselli

Authors: Carlo Morselli, Dominique Laferrière, and Maxime Reeves-Latour

September 21, 2012

Introduction

This report presents the general idea and main points addressed in the research review that was commissioned by the *Commission d'enquête sur l'octroi et la gestion des contrats publics dans l'industrie de la construction* (CEIC). The research review summarizes and synthesizes past studies that focus on deviant business practices within construction sectors in cities and regions across the world.

While it remains a main concern for the CEIC, the thrust of the paper will not be directly on mafia groups and organized crime presence per se. Past research has demonstrated that such a presence is not a necessary condition for collusive practices in the construction industry. Instead, the main point is that deviant practices generally emerge because of a laissez-faire system that fails to monitor and address loopholes in the regulatory framework that guides a contracting process and subsequent phases of the construction process. While such systemic voids may generate minimal deviant opportunities early on, the lack of monitoring and intervention will lead to a degeneration of the entire process over an extended period. Over time, these marginal deviant opportunities become increasingly available, subject to more sophisticated organizational schemes to sustain them, and may fall under the control of a more centralized group of actors who have essentially cornered available opportunities on how to seize and profit from the many vulnerabilities in the construction industry. What this means is that the collusion problem and the emergence of an organized and centralized group of profiteers is a product of the system itself and not, as popular opinion often suggests, the strategic creation of an external criminal group that arrives to take control of the process at any given time. In short, a vulnerable system begets its own deviant organization and does not require a mafia or organized crime presence to organize it.

This is the general appraisal that extends from our review of past research on deviant practices in the construction industry across a multitude of geographical scenes. This demonstration will take up the bulk of this report, as we proceed to review experiences across international contexts. Our aim is to identify the push and pull factors that serve as warnings or indicators of rising problems within the industry. Push factors are any form of influential factor that arise beyond the construction industry and that represent any attempt or success to penetrate the sector. The presence of criminal groups that are often claimed to organize themselves as a strategy to take control of the construction industry fall within the scope of these push factors. Pull factors are factors that are inherent to the construction industry and a result of fallacies with any number of phases within the construction process. Pull factors are therefore internal problems that attract deviant behaviour.

The search for push and pull factors that explain why and how criminal groups emerge in or intentionally move toward specific geographical locations, criminal markets, or legitimate industries is also the central focus of a wide range of research falling within the *organizing crime*

and criminogenic environment frameworks (Block 1991). Research in the organizing crime tradition is more concerned with the pull factors that attract criminal group formation. The most extreme outcome of an organizing crime process is the symbiotic merging of under and upper world actors in the form of organized crime and institutionalized racketeering. These factors vary from vulnerable communities, poorly regulated economic sectors, overlaps between upper and underworld actors, a lack of protection services from legitimate protection providers, and less vigorous anti-organized crime policy and law-enforcement approaches. These factors are consistently identified across research on private protection in organized crime, more commonly known as the mafia phenomenon (Varese 2011 and 2001; Hill 2003; Milhaupt and West 2000; Gambetta and Reuter 1995; Gambetta 1993), and more general research on the prevention of organized crime (Van Dijk 2007; Van de Bunt and van der Schoot 2003; Jacobs 1999).

General Problems Related to the Construction Industry

The combination of push and pull factors makes the construction industry vulnerable to many deviant practices. Construction is a highly lucrative business sector. In most countries, it accounts for five to seven percent of the gross domestic product and it is estimated to be a \$1.7 trillion industry worldwide (Kenny 2007). Accounts of collusion and corruption emerge from virtually every country across the globe (Transparency International 2006). The complexity and non-standardized production processes, along with large potential benefits, have made construction one of the most corrupted industries worldwide (Kenny 2007). Accounts of collusion between government officials and the construction sector have been reported in Japan, Italy, United Kingdom, Australia, Eastern Europe, New York and in the Netherlands (Den Heuvel 2005). Covering 4000 firms in 22 countries, the Business Environment and Enterprise Performance Survey reported that construction firms have considerably larger bribe budgets and that they bribe more often than other types of firms. Moreover, construction firms allocated a larger portion of this bribe budget to gain governmental contracts in comparison to other firms in the sample (Kenny 2007). Similarly, Price Waterhouse Coopers (2010), in their global economic crime survey including 3000 senior representatives in 54 countries, found that corruption and bribery are on the increase and are more prevalent in the construction industry than in the more general business world (Price Waterhouse Coopers 2010).

Construction is known to be an extremely complex and diverse industry, involving non-standard activities that are fairly hard to assess and monitor. Moreover, the implication of a multitude of actors from various fields of expertise, ranging from engineers and architects to insurers and clients, is needed to complete the work (Kenny 2007). High levels of uncertainty typically characterize construction projects. Clients can be unsatisfied with the work done or identify parts of the project that are not thought to meet the expectations of the original design. This can lead to a new referral to the engineer and architect team, who can then generate new and improved instructions. Moreover, various problems can arise because of personnel turnover, damaged or stolen material, and environmental conditions. These unforeseen conditions often

lead to time delays and additional costs (Gabor et al. 2011). The diversity and complexity that characterizes the construction industry generates numerous weaknesses, thereby providing several non-negligible criminal opportunities to any individual involved in it. Indeed, deviant practices are many and varied within this sector.

Transparency International (2006) outlined the main crimes that are prevalent in the construction industry. Typical violations include bribery, extortion, fraud, theft, and sabotage, but one of the more important challenges is the emergence of cartels that set up collusive bidding systems. Anti-trust laws across the world prohibit monopolization, restraints of trade, and collusion among firms in order to protect clients (Brockmann 2009) and violations of such laws are amongst the most pervasive and lucrative forms of corporate deviance (Den Heuvel 2005). More specifically, collusive bidding in the construction industry refers to cases where independent firms share their bidding prices with each other before the bidding process starts. This allows them to predetermine the firm that will win the contract. Agreements can then be taken between firms so that the ‘winning’ company offers some form of compensation to its competitors. Portions of the profits can also be offered to ‘losing’ firms in the form of kickbacks (Gabor et al. 2011). When such collusive bidding is done over an extended period of time, cartels of contractors are created and rotation of winning firms can be established. This is extremely lucrative for the firms, but can be greatly detrimental to clients as prices are higher than what they would be in a free and competitive market (Brockmann 2009). Firms that are outside the cartel can easily be excluded, as they are usually unable to compete. Two other forms of collusion can be found in the construction sector. Authorities may come to favor certain contractors, while completely disregarding others. Collusion can also happen at the individual level, where individual public servants are bribed in order to increase chances of contract procurement (Den Heuvel 2005).

The Domestic Context: From Competition to Corruption

For many reasons, the construction industry is essentially a criminogenic environment and, as the following pages will illustrate, this is not particular to any single cultural or geographical region in the world. Faced with increasing revelations of an abusive context in the Montreal and Quebec construction industry, we turn to international experiences to learn about the factors that were at the root of similar events elsewhere and how such problems were addressed with varying degrees of success.

Whether in Montreal, Quebec, or Canada, deviant practices in the construction industry have been minimally studied and those studies that do exist are scant in terms of empirical demonstration. Most recently, a report on vulnerabilities in British Columbia and Quebec construction industries was prepared for Public Safety Canada, with, aside from extracting some patterns from a limited research review, little results adding anything relevant or new to existing knowledge in this area (Gabor et al 2011). Another research by Schneider (2004) focused more

specifically on 371 proceeds of crime cases that were investigated by the RCMP from 1993 to 2000. The study was more concerned with how the Canadian real estate market may be used by criminal organizations to launder money obtained through illegal activities than on the construction industry *per se*. Schneider argued that the real estate market serves criminal organizations by providing lands and buildings that are afterwards exploited as criminal opportunities, such as drug production, drug trafficking, contraband of illegal goods, illegal gambling, prostitution, and counterfeiting. The study also examined how such income is then invested in the legitimate economy, but there is no discussion related to the construction industry itself.

A more relevant research in the Canadian context was conducted by Sexton's (1989), who examined the impact of structural changes in Quebec's construction industry from 1968 to 1987. The study was based on the 1974-75 Cliche Commission. Concern at the time was in regard to questionable relations between unions and employers. Although the commission reported no evidence of any unions being controlled or infiltrated by organized crime groups, it did issue a series of measures directly aimed at reducing violence and corruption in the construction industry. Sexton's research did not inform us of the factors that led to the rise of deviant practices in this industry at that time. Instead, it provided a summary of checks and controls that were implemented to resolve the problem within the Quebec context. This problem was restricted to the union issue. As we will see with research elsewhere in the world, the union issue is a central one across settings, particularly when organized crime is a key component, however, many other elements of the construction industry and overall process are also addressed. For the present Quebec context, the union issue does not appear to be at the core of the problem and it would be valuable to gain a greater understanding of similar situations elsewhere in the world.

Another study by Chassin and Joanis (2010) focused on the Quebec construction industry after allegations of collusion, political interference, links with organized crime, and intimidation and violence on work sites made public during the late 2000s. Construction costs have been noted to be higher in Quebec than in any other province, pointing to possible collusion. Chassin and Joanis' report was commissioned by the *Association de la Construction du Québec* (ACQ). Their aim was to identify ways to detect and prevent collusive practices in public markets, with a special focus on public contracting in the construction sector. This report provides the most complete assessment of the regulatory system framing the Quebec construction industry. It also illustrates the complexity of this regulatory system and the high level of fragmentation that often becomes a bureaucratic burden to manage and monitor. Public markets generally involve large sums of money and are thus framed by laws that dictate rules of contract awarding. This regulatory framework is made up of interprovincial and international agreements, which open Quebec markets to enterprises from other provinces and countries. Quebec has four agreements liberating its public markets and that allow for the reciprocal opening of markets when project

prices are above certain thresholds. A law is also in place to regulate contracts involving public organizations (*Loi sur les contrats des organismes publics*). When the amount of a contract is above the financial threshold, it has to be awarded by a bid auction (except for certain specific circumstances). The *Loi sur les contrats des organismes publics* is made up of 12 regulations, one of which is directly linked with construction. This regulation stipulates that all construction contracts awarded through bid auctions are based on prices. Quality assurance might be required by clients in certain cases. In such cases, bidders with quality assurance advantage can benefit from preferential margins. Lastly, the federal *Loi canadienne sur la concurrence* is the reference in terms of collusive practices. It includes criminal and civil dispositions. In addition to being regulated by public markets regulations, the construction industry is also guided by regulations specific to construction. In Quebec, the construction sector regulatory framework is mostly derived from the *Loi sur les relations de travail, la formation professionnelle et la gestion de la main-d'oeuvre dans l'industrie de la construction (Loi R-20)*, which is enforced by the *Commission de la construction du Québec (CCQ)*. This law requires that all construction workers join one union among the five approved associations in the province (CSD-construction, CSN-construction, FTQ-construction, *le Conseil provincial du Québec des métiers de la construction international*, and *le Syndicat québécois de la construction*). As opposed to many economic sectors, labor costs do not result from negotiations between employee and employer, but rather from centralized negotiations between employers' representatives and unions. This means that unionized labor costs should not be a competitive factor between bidders, as prices are similar. Moreover, building quality and security is insured by the *Loi sur le bâtiment* and the *Loi sur la sécurité dans les édifices publics*, both administered by the *Régie du bâtiment du Québec*. All construction enterprises are required to possess an entrepreneur licence to work in the sector. Workers are required to possess a competence certificate delivered by the CCQ. The authors argue that, despite the opening of the Quebec construction industry to foreign enterprises, laws and regulations are so numerous and singular that they constitute an important obstacle to entry.

Chassin and Joanis (2010) assess this regulatory context within an auction theory framework, which includes sealed-bid auctions. Economic theory stipulates that best results for sellers are reached when competition exists between buyers. This is the basic premise guiding public contracting procedures. At the opposite end of the bidding exchange, buyers reap greater benefits by cooperating. Bid auctions aim at creating competition between potential candidates to obtain the best possible price. Sealed-bid auctions are thought to be less susceptible to collusion, yet cartels still form and force participants to predetermine the submitted prices and the winner of the auction. Theoretically, bid auctions consist of different steps that are meant to favour competition. Yet, despite the functioning of bid-auctions, informal cartels are often formed and collusive activities are practiced. The objective of cartels is to benefit from anti-competitive behavior, allowing for market advantage and preserving the illusion of competition. Chassin and

Joanis' research identify a series of indicators that illustrate the rise of collusive practices and that facilitate cartel formation:

- a small number of enterprises;
- low entry in the market, which reduces the number of new actors;
- few technological changes;
- stability and predictability of demand;
- high demand turnover or recession;
- homogeneity of products, which facilitates agreements on prices;
- products that have no substitutes or alternatives;
- low chance of detection;
- profits are higher than penalties;
- the presence of professional associations or active commercial associations that facilitate meetings or act as lobbies to limit new entries on the market and tighten norms.

Factors such as these will be compiled throughout this report (at the end of each country-based section) and merged in a conceptual framework that links them to the evolution of deviance in the construction industry. At this point, we may already formulate a general process that reflects changes in the competitive environment of contract allocations in this industry. This process takes us across four phases: competition, cooperation, collusion, and corruption. If the optimal environment for authorities is one that promotes competition between bidders, it is obvious that such bidders will gradually organize themselves to collectively increase their competitive value not amongst themselves, but against their common competitor: the authority that governs the contract. Such cooperation (or anti-competitive behaviour) gives bidders a competitive edge. If and when such cooperation amongst bidding competitors shifts to collusion, in which price-fixing and contract allocation become systematic elements in the contracting game, or corruption, in which a representative of the authority facilitates the actions of one or more bidders, is a matter of many factors. The factors that lead to the typical collusive and corruption strategies have been documented across a multitude of settings across the world. These international experiences do not simply inform us on which factors can serve as indicators of varying degrees of deviance in the construction industry. Above all, they tell us that Montreal or Quebec is not unique for the problems that have emerged over recent years.

International Experiences

The bulk of this report provides details from past research that studied the rise and sustainment of collusive and corruption practices in the construction industries across the world. This research review begins with extensive research from the United States, and particularly with the New York City context from the 1980s. The Italian experience follows the American experience. It is within these two settings that the mafia/organized crime problem is addressed as a central component to problems in the construction industry. The research review of studies in

subsequent areas of the world (Netherlands, Australia, India, Japan, and China) reflects a different picture, one in which the mafia is not the central problem.

The American Experience

The most extensive context of deviant practices in the construction industry to be assessed by researchers is the American setting. The more ambitious research efforts in this country focused on the New York City Organized Crime Task Force that targeted the construction industry in that city during the late 1990s. Research into the deviant practices in the construction industry in the US focused heavily on the role of union control of employee hiring and organization. While this is often the main concern, other factors also emerge when assessing this key public sector. The contracting system is the second most important area to be examined by various researchers.

The main US reference and arguably the most thorough research remains Goldstock, Marcus, Thacher, and Jacobs' (1989) assessment of corruption and racketeering in New York City's construction industry. Their report was prepared for the Organized Crime Task Force that was assembled during the late 1980s and dealt with a range of deviant and criminal practices that hindered the city's construction sector throughout the twentieth century (e.g., labor racketeering, extortion, bribery, illegal cartels, bid rigging, Cosa Nostra presence). In many ways, and consistent with the organizing crime framework, the ongoing relationships between upper and underworld figures had become symbiotic. The authors of the report painted a picture of the NYC construction industry until the 1980s as a comfortable business environment in which such practices had become "business-as-usual" for anyone involved or trying to enter the industry (Goldstock et al, 1989: p.xxv).

Essentially, what the New York City experience represents is the nonchalance that comes to dominate a public sector if deviant practices are allowed to persist, diffuse, and intensify over a lengthy period. We are referring to decades of persistence. In the Forward to the report, Jacobs clarifies this symbiotic scenario: "What this *Final Report* shows is that organized crime does not so much attack and subvert legitimate industry as exploit opportunities to work symbiotically with legitimate industry so that everybody makes money" (p.xxv). Once again, the opportunities that attract and generate deviant practices emerge from within the industry and the problem is a product of the system itself, not an outcome of some external attack from a formidable criminal organizational actor. The approach is also consistent with the administrative approach that has also guided reforms in the Dutch context (see below) and which "does not explain the current situation in terms of notorious criminals but in terms of the economic and social variables that create the incentives for institutional actors to reach out to racketeers and organized crime syndicates" (p.xxix). These pull factors are key to getting to the source of the problem. Such factors are also persistent if little is done to monitor the problem. As the authors of the New York City Task Force stated, what was found in the city's construction industry during the 1980s had

already been found and warned against in a 1922 report of the New York State Joint Legislative Committee on Housing (*aka*, the Lockwood Commission) (Goldstock et al, 1989: p.13).

In describing New York City's construction industry, Goldstock et al (1989) provided five general features of such sectors that make them vulnerable even before there are any signs of collusion or corruption. The most important factors cannot be subject to any change in that construction is a huge, fragmented, and decentralized sector comprised of a multitude of actors from a wide range of business and administrative backgrounds (p.14). The lack of centralization, its formidable size, and the high level of diversity within the sector makes it difficult to monitor and control, for both the contracting and construction processes. Second, Public Works administrations are generally "underfunded, bureaucratically muscle bound and inefficient" (Goldstock et al, 1989: pp.133-134) and will be more vulnerable to abuse. Third, abuse in sectors such as the construction industry has never been a high priority in law-enforcement circles. Fourth, the competitive bidding system in which the lowest bidder wins is easy to organize against and manipulate. Finally, laxism in sanctioning initial deviant practices is notorious and no systematic database is generally assembled to keep track of deviant actors.

In laying out their indications that an industry is becoming increasingly vulnerable to abusive practices, Goldstock et al point to the following more specific factors:

- an increase in the number of threats of labour problems by union officials toward contractors;
- an increase in the number of incidents reflecting bribes for contract allotment, building permits, or abnormal contracts;
- non-enforcement of collective bargaining agreements;
- a rise in the number of thefts on construction sites;
- an increase in billing for unperformed work;
- an increase in fraudulent union payments and taxable income/business records;
- an increase in violent incidents surrounding union matters, contractors, or rival racketeers;
- an increase in sabotage of 'uncooperative' contractors;
- a rise in "predatory bidding", in which rates are well below market norms;
- a rise in "identical bidding", which indicate that firms are not bidding competitively;
- a rise in "territorial bidding", in which firms do not compete within the same territories;
- a rise in "rotational bidding", in which firms obtain contracts in a tit-for-tat pattern.

Goldstock et al (1989) pursue this analysis by concentrating directly on the New York City context and the process that slowly degenerated into the abusive system that was in place in the 1980s. Political support for unions in NYC has traditionally been strong and this led to the monopolization of skilled and unskilled workers. With effective controls of union affairs lacking,

racketeers easily took control of unions and, thus, labour. This led to the “balkanization” (p.53) of collective bargaining and the need to negotiate and coordinate several specialized unions for workers involved in the many steps of the construction process. With each of the specialized unions negotiating for its own vested interests, labour costs increased due to consistent disputes. Overall, the high costs of delay in various steps along the construction process created opportunities for bribes and extortion. On the other side of the negotiation process, employer associations were generally weak and had little power against strong and organized unions during collective bargaining negotiations. The New York City context was also characterized by a high volume of contractors and subcontractors. This highly competitive industry had been marked as an attractor of systematic racketeer for quite some time (see Taft 1958) and such a context generally leads to many contractors seeking an edge by “reaching out to anyone with the ability to help them gain an economic advantage by reducing labor costs or eliminating competition” (Goldstock et al, 1989: p.57).

After assessing the situation in NYC, Goldstock et al (1989) formulated a comprehensive control strategy to contain and prevent the same scenario from re-emerging in the future. They argued in favour of long-term reforms which went beyond the detection and arrest of the key and likely organized crime players in the industry and that “must be more sustained, more broadly focused and more intensive than any previous initiative” (p.157). Coherent with their critique of centralization in this industry, the authors argued against the creation of a single agency that would be in control of the problem because they felt that this would dismiss other agencies from taking responsibility of such matters as well as concentrating efforts to manipulate the system by future racketeers.

The main point underlying these reforms was that the problems that were inherent to the construction industry in New York City until the 1980s were a reflection of values and practices that were in play well beyond this industry and for a period that extends much farther back than that specific decade. What Goldstock et al (1989) argued for were cultural and administrative changes and not simply the removal and punishment of a notorious group of offenders that were claimed to be at the centre of the corruption that had come to hinder the construction industry.

Ichniowski and Preston (1989) also focused on the widespread and varied illegal activities that had been noted for several decades in the New York City construction industry. Several of the same factors that were raised in general research on the construction industry and specific investigations across international settings were also addressed in this study. The concern in this study was on how market forces may constrain the attempts of organized crime groups to profit. The authors argue that two distinct forms of barriers in the construction industry generate an opportunity for organized crime groups to coordinate economic activities. One set of pull factors was comprised of barriers to market formation that were inherent in construction transactions and that made it inefficient to conduct activities with relatively small firms (e.g.,

production processes involve a series of sequential transactions which require extensive coordination, complexity of construction markets, specialization required in capital and human assets). A second pull factor concerned barriers to large firms, pointing to the limits that constrained firms from growing (e.g., long duration of projects, cyclical nature of construction, antitrust regulation that directly place limits on the extent of vertical or horizontal expansion). Moreover, opportunities for crime are increased by the high profits at stake within the construction sector, the demand for alternative governance and private protection, the limited impact of law enforcement efforts due to relatively poor mobility of resources and work locations, and restricted access to construction sites. Labor unions were depicted as one tool used by organized crime groups to control firms and markets. Ichniowski and Preston's (1989) study is one of the rare research efforts to actually contest these typical factors with empirical testing. Results suggested that corruption among union officials in New York City was not so pervasive in that it did not lead to low wages for construction workers. Moreover, there was no evidence that union wages were higher in New York City than in any other city, despite higher levels of unionization. According to the authors, this refutes the hypothesis that corrupt union officials buy off their members with higher legal wages.

In many ways, tendencies toward deviant practices in major city construction industries are more common than rare. Even after the New York City Organized Crime Task Force, problems persisted in that city. Thacher (1995) provides the main case for this statement in his analysis of the post Task Force period. His role as the first inspector general of the New York City Board of Education's construction operations offers an outlook of the New York City scene beyond the academic perspective. The release of the Task Force report in 1989 highlighted the fact that corruption and racketeering were still frequent within the city's construction industry. That report also stated that the city's school construction program was one of the worst sectors in terms of fraud, abuse, money waste, and corruption. Following this report, the author was contacted by the trustees of the new School Construction Authority (SCA) to put in practice a strategy that had already been designed (by the author) for the purpose of combating corruption (and by extent a plurality of criminal actions, such as fraud, bribes, wasteful practice, extortion, cartelization, and racketeering) by other means than courts. While not concerned with the factors underlying the deviant practices, two distinct approaches to reduce corruption were proposed: deterrence and opportunity blocking. In order to do so, the organization relies on sophisticated material – similar to the ones used by law enforcement – that will be used for surveillance and to conduct long-term investigations. To further reduce opportunities and incentives in engaging in fraudulent behavior, strategies, procedures, practices, and systems will also be continuously elaborated and modified by different units for the duration of the project. Thacher described the strategies that were taken in order to achieve the goal of reducing corruption in the SCA. The most important of them were:

- civil lawsuits against individuals or enterprises found guilty of fraudulent activity;

- debarment of deviant contracting firms from future projects;
- the creation of a hot-line for participants to report any wrongdoings;
- use of informants and undercover agents in investigations;
- refusal to do business with firms or enterprises that had previously been convicted of a criminal activity or that lacked the necessary honesty or integrity to submit to a SCA contract;
- background checks were required for all firms doing business with the SCA.

This was the form of monitoring that Thacher (1995) argued was required to assure the implementation of reforms and to avoid the emergence of another organized criminal setting. Laxism and impunity, in short, were the main factors accounting for the rise of serious problems of collusion and corruption in the construction and other public sectors.

Jacobs and Anechiarico (1992) also questioned the state of affairs in New York City's school construction sector following the 1989 Task Force. While lacking an empirical analysis, this research provided a critical response and analysis to the strategies elaborated by the NYC School Construction Authority to reduce and prevent corrupted behavior in the corruption industry. More specifically, the authors strongly challenge the SCA's introduction of "blacklisting public contractors" as one of the major policies aimed at reducing the existing corruption problems in this sector. This policy, among other things, restrains contractors as well as suppliers having suspected or known relationships with criminal entrepreneurs in engaging in business with the SCA. To be able to bid on a contract, the contractors/vendors must be "financially, operationally and morally responsible". It is this particular concept of morality and all its implications for the overall bidding process that the authors reconsider throughout this article. The authors recognized the SCA's motivations behind such a policy. However, they argue that such a strategy poses more ethical, moral, management, and efficiency problems than it can resolve. Such implementations are also suspected to cost more public funds than what they can save from preventing corrupt activity. Rather than promote a blacklisting strategy that "may not significantly reduce corruption and may add significant costs and delays to an already overburdened and muscle-bound contracting system" (p. 73), the authors suggested that other strategies to reduce corruption, such as professionalized procurement management and extensive contract supervision, would be more suitable and cost-efficient.

In another analysis of the New York City context, Jacobs (1999) focused specifically on the law-enforcement and general criminal justice interventions that specifically reduced the presence of organized crime groups in the public construction industry. While the earlier studies by Thacher (1995) and Jacobs and Anechiarico (1992) raised awareness toward the continuing problems regarding collusion and corruption in the industry, this later study by Jacobs presents a more positive light on the turn of events following the 1989 New York City Task Force reforms.

What this study suggests is that even though many of the underlying problems that made the construction industry vulnerable throughout the past century still had to be tended to, at least the city was successful in reducing Cosa Nostra presence. Jacobs (1999) turns to Block and Chambliss' (1981) organizing crime research to emphasize that, from as far back as the 1930s, the construction industry was traditionally only one of many sectors that was vulnerable to organized crime or racketeering. Indeed, the list of industries is long and extensive: "bead, cinder, cloth shrinking, clothing, construction, flower shops, Fulton Fish Market, funeral parlors, fur dressing, hod carriers, ice, kosher butchers, laundry, leather, live poultry, master barbers, milk, millinery, musical, night patrol, neckwear, newsstands, operating engineers, overall, paper box, paper hangers, shirtmakers, taxicabs, waterfront workers, and window cleaners" (p.11; see also Block and Chambliss 1981: p. 65). In more recent decades, Jacobs' (1999) book also focuses beyond the construction industry by closely assessing the garment industry, Fulton Fish Market, JFK Airport, the Javits Convention Center, and the waste-hauling industry, as well as listing several other sectors that were not analyzed in this study: the moving and storage industry, linen service, restaurants, and nightclubs (p.13).

In regard to the construction industry itself, Jacobs traces the problems and changes that took place after the Task Force and RICO interventions that took down a series of cartels and rackets that were run by some of the city's key crime families across the subindustries of the construction sector (e.g., demolition, concrete, rebar, plumbing, drywall, masonry, and painting). As with the Goldstock et al (1989) report, Jacobs reiterates that the city is essentially a "union town" and that its industry is sensitive to the lengthy delays in the construction process and made up of "huge, decentralized, and fragmented agglomerations of thousands of construction companies and materials suppliers, and many onetime or infrequent builders ranging from large corporations to small entrepreneurs" (p.99). Jacobs also returns to the 1980s Task Force to illustrate the presence of Cosa Nostra families and members across all phases of the construction process. He cites a series of cartels that were targeted and eradicated by law-enforcement and judicial efforts of the previous decade (e.g., the concrete cartel run, the drywall cartel, the window-replacement cartel, and the painting cartel). Jacobs links the rise of the Cosa Nostra in this and other industries to each family's ability to overcome their status as competitors throughout the 20th century and create a more cooperative system that would allow them to prosper as a group and as individual units within this sector. This ability to cooperate was presented as a precursor to the more stereotypical capacities that were also associated to such criminal groups (e.g., reputation for violence; reliability as protectors; general business acumen; opportunism; adaptability). Jacobs' turns to former Gambino underboss Sammy Gravano's as a good representation of how, over an extended period of time, a single individual could emerge as a formidable player in the industry: "He advanced from small-time hustler to owner of nightclubs and plumbing, drywall, carpeting, and painting companies. Ultimately, Gravano acquired interests in several parts of the construction industry: concrete pouring, asbestos floor-inlay, and steel-erection companies. His status in the mob enabled him to carry out contracts and guarantee

labor peace to cooperative subcontractors, who repaid the favor with kickbacks ranging from \$15,000 to \$20,000 per contract. (...) Gravano, like many of the Costra Nostra figures, kept seeking opportunities to make money in one business scheme and racket after another” (p.119).

This piece-meal process that described Gravano’s emergence as a key entrepreneur in the construction industry can be transposed to a greater aggregate and explain how a competitive public industry becomes less and less controlled by the authorities that are supposed to be responsible for its administration. Jacobs examines the uniqueness of the construction industry and other vulnerable industries by highlighting the key factors that underlie such problems. The analysis is once again consistent with Goldstock et al’s (1989) appraisal of the same context a decade earlier. First, vulnerable industries are above all hindered by the important time constraints that reflect the stages of inherent work. Such control of the industry’s timeliness gives important powers to any entrepreneur who may increase the level of costs for given tasks throughout the construction process. Second, the structure and organization of the industry makes it conducive to manipulation by more organized (or *experienced*) participants. To confront such problems, a series of reforms were taken by New York City officials following the seminal 1980s Task Force. Union reform and civil RICO suits led to the demise of the main cartels in the aforementioned subindustries. Federal court-appointed trustee-ships of local unions were implemented by the higher level international union leaders.

While it remains one of the more ambitious experiences to take on a major problem of organized crime presence in the construction industry, what is lacking in the New York City experience are the details concerning problems and changes that concerned the public contracting system. Judging by past research, unions and their control by organized crime groups appeared to be the main challenge facing authorities in that specific time and context. Experiences from other international scenes carry us beyond the mob-ridden union control of labour relations.

One case study, that we judge to be the most innovative in the present review, was conducted by Gupta (2001), who focused on the bidding process of the highway auction market in Florida between September 1981 and September 1986. This article discusses the collusive schemes that can potentially arise from repeated contacts within construction firms on the procurement auction market. Repeated contacts between contractors in this market represented a key factor that gradually facilitates collusive schemes. Such signs of cooperation between competitors were argued to be a potential indicator for identifying and successfully prosecuting collusion. Based on data from the Florida Department of Transportation’s inventory of 1738 highway construction projects and 8943 bids (including the identity of the lowest/winning bidding firms), the study provides an analysis of this particular phenomenon by evaluating the bidding patterns of firms in order to see if repeated contacts among them are likely to inflate bid prices. The main hypothesis driving this analysis was that the “propensity to collude increases

with multimarket contact” (p. 455). The analysis was mainly concerned with phantom bidding, which consist of an “all-inclusive bidder cartel where members other than the designated winner submit artificial high bids to manifest presence of competition” (p.456).

Gupta (2001) devised an elaborate statistical framework which accounts for the level of multiple contacts between firms (and potential collusion) in the highway auctions market. Statistically significant support was found for the main hypothesis indicating that multiple contacts between construction firms increase potential collusive activity. Gupta also found that highway bids fell as construction activity surged: “This countercyclical movement in bid price is inconsistent with costs being overestimated during downturns, which is interesting to note since the construction industry is well known to be procyclical. This result is in line with the Rotemberg–Saloner theory that collusion is more susceptible to breaking down during a high demand state, leading to a lower level of price during booms” (p. 464).

The main factors identified in Gupta’s study were well supported by statistical testing. Overall, his conclusion tells us that repeated and prevalent interaction among firms is indicative of multimarket contact and that such a pattern is conducive to collusion. Other findings indicate that collusion was more common in larger and more costly projects and when the economy slowed down (thus reducing the number of projects firms can bid in).

If we combine the New York City studies and Gupta’s analysis of the Florida highway construction market, a series of indicators and factors that serve as warning signs or red flags may be compiled to explain the rise of collusive or corruption practices in the construction industry. The main ones emerging from the American experience are as follows:

- emergence of booming markets;
- large scale industry;
- fragmented and decentralized industry;
- bureaucratically muscle-bound, inefficient, and underfunded administration;
- lax monitoring of illicit activities and impunity;
- manipulation of bid-rigging;
- one-dimensional, price-oriented competition;
- restricted competition;
- large, costly, and highly profitable projects;
- demand for alternative governance;
- limited impact of law-enforcement due to high mobility of resources and restricted access to work and construction sites;
- time constrained industry;
- frequent economic slow-downs
- Mafia/Cosa Nostra presence;

- Cosa Nostra penetration and control of unions;
- union domination of labour

The Italian Experience

Unlike the American context, research in Italy has been less concerned with a particular city or region and more focused on the reputed criminal organizations in that country. More so than the American context and other international setting, the priority in the Italian experience remains the presence of organized crime groups.

Using a script approach, Savona (2009) analyzed the various stages characterizing the infiltration of the legitimate construction sector by the Cosa Nostra, 'Ndrangheta, and Camorra. Whereas some researchers assume that mafia groups infiltrate the public construction industry exclusively for money laundering purposes, Savona argues that it also allows organized crime groups to infiltrate legitimate activities and consequently obtain various benefits. Four distinct stages in the script were identified, depicting the procedural aspects and requirements of corruption in the industry. Savona's analysis presents a context in which contracts are allotted and divided by a mix of organized crime members and public sector officials. His analysis essentially reveals a pre-selection process for construction contracts. This illustration is the most extreme example that we encountered in our research review of organized crime presence in the construction industry.

The first stage is the *preparation/selection of potential targets*. During this particular step of construction infiltration, meetings are organized in order to select co-offenders and identify targets. Bosses of implicated crime families meet with administrators of businesses, white-collar workers, and politicians in order to agree on the division of the market. These meetings also allow them to decide which entrepreneur will become the main contractor of a construction project. The second stage is the *enabling conditions* stage (Savona, 2009). With the support of white-collar workers and professionals from the public and private sectors, new 'clean' businesses or temporary associations of companies to act as contractors are created and provided with formal requirements. At this stage, it is not uncommon for mafia groups to participate in the corruption of public officials and politicians in order to obtain the necessary official documents. It is also during this stage that corrupt relationships with enterprises are intensified and maintained. After these preparatory stages, Savona (2009) noted that the third scene was composed of the *acts/the doing*. At this stage, unwelcomed entrepreneurs are excluded or discouraged from participating in the bidding process. Public officials and politicians agree with the mafia groups on the preselected bid-winner and on how the bidding process will be prepared. After the principal contract is awarded, subcontracts are defined and awarded. Once work starts on the construction site, money is extorted from employment and complicities are created with individuals in charge of the work. Finally, the *post-conditions/aftermaths* stage involves the division of future public contracts.

This breakdown of procedural aspects and requirements of corruption in the Italian construction industry illustrates the various relationships that are necessary within construction ventures. In this particular case study, complex relationships are built between mafiosi, white-collar workers, public officials, and politicians. Indeed, it is possible to argue that while corruption in the construction industry can be done on a fairly reciprocal, collusive basis, it can also include threats and violence. In Savona's study, the presence of organized crime groups in the construction industry was explained by the need to launder money. Severe controls on money-laundering in financial institutions (e.g., banks and credit unions) pushed organized crime groups to infiltrate legitimate business sectors. The construction industry, with its few controls, was an ideal alternative.

A more recent research on corruption and organized crime presence in the construction industry was conducted by Varese (2011, 2006), in a comparative research on Verona (in the Veneto region) and Bardonecchia (in the Piemonte region). Varese's study is the most recent and comprehensive research on deviant practices and organized crime presence in a variety of industrial sectors, and particularly in the construction trade. This research takes us beyond the money laundering issue. His main thesis is that the rise of a collusive system in the construction industry or other economic sectors is not due to the presence of powerful people and organizations that willfully move and branch out when and where they want. Mafia or criminal groups often do not have an interest to expose themselves in such practices and those who may have an interest do not generally have the capacity and resources to develop and control such a sophisticated system within the legitimate sphere of business activities. Quite differently, such a system is due to several structural conditions and inherent vulnerabilities that attract deviant entrepreneurs and, over the long term, create and sustain a collusive environment. Varese's analysis of the construction industry explores transplantation attempts by the Calabrian-based 'Ndrangheta in two regions between the late 1950s and 1990s. His analysis is consistent with an extensive body of literature that argues that internationally recognized mafia groups (e.g., Chinese Triads, Cosa Nostra, Russian mafia, Yakuza) typically arise in a context of rapid economic or democratic transition. In such a context, the state sometimes lacks the legal structures and/or institutions to regulate dispute settlements and the respect of property rights. Consequently, some criminal groups will emerge as an appropriate alternative to state inefficiency because they are able to provide services and protection for both the upperworld and the underworld. Varese's study is consistent with past case studies by Gambetta and Reuter (1995), who demonstrated that such a phenomenon was not simply a matter for weak states to deal with and that advanced market economies and relatively stable societies experienced the implementation and growth of criminal organized firms coming from another region. The Bardonecchia and Verona case studies illustrate why a group like the 'Ndrangheta succeeded in transplanting itself in the former, but not the latter.

In Bardonecchia, specific economic and social features led to the emergence of a demand for criminal protection. First, the Piemonte region was characterized by a vast influx of immigrants in the 1950s and the arrival of fifty-four mafiosi ordered by the *soggiorno obbligato* (forced displacement to another region of Italy) to move to this region in the 1960s. The sudden expansion of the construction industry in Bardonecchia also created a favourable context for mafia transplantation. First, the small workforce in this industry was not sufficient to sustain such a demand. Consequently, employers turned to “fixers” who supplied them with poorly-qualified and non-unionized immigrant workers. Second, multiple new companies were created by mafiosi who were transferred to Piemonte through the *soggiorno obbligato*. These firms would also employ the rising illegal workforce and turn to ‘Ndrangheta members for protection. Eventually, such firms formed cartels and succeeded in taking control over the construction market. Gradually, mafia presence over the construction industry evolved into a wider protection cartel, to the point where few could do business in this industry without the consent of some of its key members. The reaction of city’s population, characterised by a high level of trust, was not sufficient to combat the mafia presence. In fact, mafiosi had forged a degree of social consensus among new immigrants and this gradually extended to the integration and influence of local politicians, actors in the judicial system, and law enforcement officials. The transplantation did succeed. This evolution from a cooperative to kickback to corrupt system took over three decades.

Verona was characterized by the same immigrant and mafiosi influx and high civic trust as Bardonecchia, however, in this city, the ‘Ndrangheta failed to transplant itself. In contrast to Bardonecchia, immigrants who established themselves in Verona were agricultural workers seeking employment in local factories. They were also faced with a more favourable context in which the supply of jobs was high and the unemployment rate remained low. ‘Ndrangheta members eventually tried to extort money from legal entrepreneurs with the use of violence and intimidation, however, since there was no specific demand for services in the upperworld or underworld, the activities of the ‘Ndrangheta were seen as pure and simple extortion. There was no need for private protection. In contrast to Bardonecchia, the public was quick to respond to the ‘Ndrangheta threat and mobilize its resources against mafia presence in Verona.

What is unique about Varese’s study is that it remains one of the few to formulate push factors that account for corruption in the construction industry. Such factors included the rising presence of Mafioso who intentionally or unintentionally (through the *soggiorno obbligato*) migrated to both cities. However, and as the Verona context demonstrates, the presence of such a push factor is not enough to account for such a phenomenon. Such a push factor must coincide with the structural and economic conditions that complete the equation that explains why and how such industries become vulnerable. The main pull factors raised by Varese in his international study are generalized migration, poor levels of civic engagement, the presence of a new or booming market for that industry, a need for private protection services, and a clear

demand for collusive services. An increase in any of these factors accounts for a greater likelihood of collusion in any public system. Depending on the size of the industry and the extent of lax monitoring by authorities, the transformation toward a full-fledged deviant environment may take from as little as a couple of years to a complete generation. Democracies and societies undergoing a democratization process are the most vulnerable to such a phenomenon because demand for such services to curb competition are the most salient and legal authorities are likely the most lax in their monitoring of such deviations.

Much of what is demonstrated in Varese's research in Northern Italy is confirmed by Lavezzi's (2008) study of the Sicilian context between 1974 and 1994. Consistent with Varese and following Gambetta and Reuter's (1995) case study assessment of New York City and Palermo, Lavezzi emphasized that cartel formation is most likely when an economic activity is territorial-based, when firms are generally small, in traditional and low-tech sectors, and when clients may be shared and supplied repeatedly over time. This latter point is most evident in contexts in which the main client is a public sector actor.

As with the other studies on the Italian context, Lavezzi's central concern was with the infiltration of organized crime members in legitimate industries such as the construction sector. Aside from Varese's more general appraisal, which sought to explain the conditions that led to the emergence of organized crime prominence in the construction industry, studies of the Italian context have followed the organized crime path as a central premise. This outlook is not shared in research that focuses on other countries, in which problems of collusion and corruption are addressed beyond this mafia or organized crime phenomena and with a central concern for a prevention-based agenda.

Factors and indicators emerging from the Italian experience:

- lax monitoring of illicit activities and impunity;
- frequent cash transactions;
- demand for alternative governance;
- poor levels of civic engagement;
- emergence of booming markets;
- demand for alternative governance
- mafiosi migration or resettlement;
- generalized migration

The Dutch Experience

Research on the Dutch experience has been directed at one scandalous series of events that took place in the 1990s. While the focus has been heavily concentrated on this single case, researchers of this context have been the most productive in formulating and implementing a strong theoretical and policy-relevant framework to assess deviant practices in the construction

industry, which had become institutionalized and increasingly perceived as functional to all involved in the industry. The administrative approach (see van de Bunt and van der Schoot 2003) that emerged to transform this cultural and institutional setting is guided by a situational crime prevention model and it remains one of the rare attempts to implement such an outlook.

Journalistic accounts of alleged corruption in the construction industry often refer to the overwhelming and controlling presence of organized crime groups. Whereas cases of organized crime groups' infiltration in the construction industry have been noted on numerous occasions, the presence of external criminal organizations is not necessary for the construction industry to be corrupted. The Dutch construction industry is a good example of such a situation. This point was already made quite clear in a report prepared by Fijnaut et al (1998) who explicitly stated that no evidence supported the claim of local or foreign criminal group infiltration in the Dutch construction industry. This report was consistent, however, with many of the vulnerable points that were raised in the US and Italy. The Dutch construction industry was labour intensive, competitive, fragmented, subject to high worker and firm turnovers, and hindered by costly delays. Unlike the US context, trade unions did not have exclusivity on construction worker employment opportunities. Quite differently, Dutch unions were subject to strong controls and did not have any financial stakes in the construction industry. The main conclusion from the Fijnaut et al report was that collusion problems in the Dutch construction industry was a corporate crime problem and not an organized crime problem.

Fijnaut et al's (1998) conclusion was also supported by a more recent study by Van de Bunt (2010). He emphasized that offenders involved in price-fixing and bid-rigging were not organized crime members or an isolated group from society. They were well reputed and respected in the construction industry. They were "trusted criminals" in the white-collar or corporate crime sense of the term (Friedrichs 2010). Furthermore, the cartel that emerged from the Dutch experience was not a closed system in that it was "fairly easy for companies to join the secret preliminary talks" (Van de Bunt 2010: p.440).

One of the more thoroughly studied cases of deviant practices in the construction industry on the international scene followed the 2002 Dutch Royal Commission concerning Irregularities in the Dutch Construction Industry. In November 2001, a Dutch public broadcasting corporation produced a documentary in which they alleged that the Dutch construction sector was plagued with irregularities, such as double-entry bookkeeping, slush funds, forced-up prices, illegal prior consultation, cartelisation, bribery and fraud, and corrupt contacts between public officials and contractors. The Dutch Parliament decided to conduct a parliamentary inquiry to investigate these claims. The final report that came out in December 2002 confirming that the construction industry was corrupt. Several researchers seized the opportunity to examine the data revealed during this public inquiry. Several factors revealing the emergence of dubious business practices were identified.

Based on this final report, Den Heuvel (2005) analyzed the conduct of individuals involved in the corruption sub-system in order to gain a better understanding of the nature and extent of irregularities and assess the role of authorities as both clients and law enforcers. Of particular interest in this case study is the definition of three distinct forms of collusion, each involving ties between different actors: cases of collusion and price-fixing between contractors; institutional collusion in which authorities favored certain contractors; and individual collusion which consisted primarily of bribery of public servants and an increased risk of breaches of integrity. Similar to case studies from other parts of the world on mafia infiltration in the construction industry, this study on corruption in the Dutch construction sector highlighted the potential roles that could be played by actors in advantageous positions across the construction process. One of the more pervasive problems of corruption in the construction sector is the use of self-justifications and neutralizations. Den Heuvel (2005) revealed that entrepreneurs were tempted to justify their collusive conduct by stating that their only goal was to make their company economically stronger, which they maintained was also good for the global economy. Such denial of responsibilities leads to neutralizations of potential damages inflicted and favor the perpetration of corruption. In this study, it was found that the collusive agreements had led to an 8.8 percent increase in prices. The Organization for Economic Co-operation and Development estimated that when compared with open and competitive markets, cartelization leads to a 15 to 20 percent price increase (Den Heuvel, 2005). Even a seemingly small percentage of a multi-billion industry quickly adds up to an impressive amount of money and to considerable financial losses.

Den Heuvel (2005) argued that the rise of such practices and negative consequences led to a culture that facilitates the perpetration of corruption. Corruption, in short, had become endemic. Furthermore, even when attempts were made to prohibit such practices, the cartelization of the construction industry continued because no controls were put into place to monitor and punish such behaviour and because the institutionalization of such practices secured profit margins, lowered risks, facilitated planning, and ensured continuity for those involved in the industry. Indeed, it was found that control agencies knew a great deal about irregularities, but that there was no willingness to apply any consequences. The rise of a neutralization discourse among participants involved in deviant activities, the general “grease and feast” culture that had spread throughout the entire industry, and the laissez-faire attitude demonstrated by control agencies were the main elements accounting for the rise and spread of such a context in the Netherlands.

Such factors were also raised in other studies of the Dutch experience. Dorée (2004) analyzed collusion in the Dutch construction industry during this same period and based on the same recommendations made by the parliamentary committee to restore fair competition in the construction market. This study focused more particularly on the mechanisms that sustain

collusion. The collusion scheme that had emerged in the Dutch construction industry was described as distinct from other collusion ventures in that it was exceptional in its scale, durable, and institutionalized. Whereas Dutch construction is not a small sector, small number markets are created in limited tendering procedures. New entrants in the market were dealt with through collective action, such as the submission of an especially low bid (or predatory bidding) or the control of and limited access to necessary resources. Contractors avoided the 'winner's curse' ("the more costs a bidder overlooks, the higher the probability that they get the job"; p.151) by comparing figures with other bidders. Contractors did not feel much risk linked to their collusive behavior as these practices had been institutionalized. Collusion helped in stabilizing the workload and reduced uncertainties about the future. Results were summarized as follows: "At the heart of the collusion seems to be the reduction in the risk for the colluders involved. The collusion made their businesses less vulnerable to the winner's curse and predatory pricing, and it also reduced fluctuations in workload. The collusion reduced rivalry and created a more stable and predictable market environment" (p.152). Overall, Dorée argued that collusion in the Dutch construction industry was the result of several cultural and economic factors: 1) a cultural predisposition towards, and tolerance of, cartels; 2) a procurement method of one-dimensional competition, which shapes a predictable selection process; 3) reduced contractors' uncertainties through collusion; 4) effective sanctions applied by colluders in cases where firms try to break out of the system; and 5) the formation of a *way of life* and "uncontested way to do business" (p.153). Market related factors included: 1) a small number of firms and a small market; 2) lack of product differentiation; 3) one-dimensional price-oriented competition; 4) similar cost functions; 5) high entry and exit barriers; 6) low price elasticity of demand; 7) predictability of selection processes in procurement competition. Probably of greatest importance was general tolerance towards cartels and collusive agreements within legislations and/or law enforcement agencies.

As in the American and Italian experiences, the rise of corruptive practices in the Dutch construction industry was entrenched in a clear historical trajectory. Graafland (2004) suggests that this collusion system was stimulated by the Dutch government in the 1950s, that allowed and encouraged construction firms to engage in pre-consultations (to cooperate, in short). This procedure eventually led to abuses and behaviors that were not in accordance with the established rules. Pre-consultations were completely prohibited in 1998 in the Netherlands, but this practice was so entrenched that they continued regardless of the legal restrictions. The parliamentary investigation revealing the illegal activities of construction companies created negative publicity for these firms, which led to considerable drops in stock values. Graafland's study describes the efforts made by one large Dutch construction company to upgrade ethical procedures.

Graafland's research directly addressed the business culture that had taken over the Dutch construction industry and which was historically favourable to price agreements. Whereas the

norm was to perceive some level of deviance as acceptable and even functional in the construction industry, this research demonstrated how allegations of collusion or unethical behaviour in an industry harm the reputation of companies, which can create negative financial consequences for firms. In addition to possible fines, diminished trust and perceptions of higher risks can lead to decreases in stock prices. Reputations therefore had to be improved and this was only possible through the integration of social responsibility policies, such as a code of conduct.

The Dutch experience shows us that it is possible to move beyond the cynical views of many and transform the underlying habits and practices that sustain such a collusive context over time. As we will see in the Australian context, the ethical question is crucial for undertaking a complete reform of such problems.

Factors from the Dutch experience:

- authorities as both clients and law enforcers;
- rise of a neutralization discourse;
- presence of a 'grease and feast' culture;
- lax monitoring of illicit activities and impunity;
- one-dimensional price-oriented competition;
- restricted competition;
- limited alternatives for products;
- similar cost functions;
- predictability of demand

The Australian Experience

As with the Canadian and Quebec context, few studies have focused on deviant practices in the Australian setting. The two that were conducted in this country prioritized ethical concerns above all other factors. Vee and Skitmore (2003) assessed the Australian construction sector during the early 2000s and focused on ethics, with particular attention to collusive tendering "that result in seemingly competitive bids, price fixing, or market distribution schemes that circumvent the spirit of free competition and defraud clients and including bid-cutting (...), bid-shopping, cover pricing, hidden fees and commissions and compensation for unsuccessful tenderers" (p. 117-118).

Based on a questionnaire survey on issues regarding ethical conducts and practices within the construction industry, the study examines a sample of companies and individual practices implicated in different phases and levels of the construction process in Australia (p. 121). Survey results revealed a series of collusive and corruption practices. Those affecting the tendering process included: client divulging more tender information to preferred tenderers and withholding information from other tenderers; bias in tendering evaluations to four major contractors; re-tendering after publishing prices; shopping prices after tenders closed; clients pre-

selecting a consultant then calling tenders to fulfil organisational or statutory requirements; competitors overstating their capacity and qualifications to secure work; competitors overstating their experience and capabilities and falsification of qualifications. At the bureaucratic or governmental policy level, additional problems were highlighted: public sector design agencies and council design agencies competing in the market at very low prices which do not reflect the true costs of their operations; government tenders practice was based on a system of exclusion which unfairly penalised private organisations; and governmental bodies bidding against private sector firms also being part of the tender selection process (p. 123). Moreover, many respondents in the survey criticized the deceitful context in which state bodies and private enterprises competed in order to obtain construction contracts. The main critiques that both parties addressed to the tendering process in this matter included: the use of bias tendering evaluation systems; practice of re-tendering; and shopping for prices after tenders were closed.

A second study also focused on the ethical implication of anticompetitive practices. Zarkada-Fraser and Skitmore's (2000) study of the construction industry in Sydney in the late 1990s also prioritized the tendering processes in the construction industry. They argued that deceit and collusive agreements between contractors had high economic and social costs in free market societies. Not only did it restrict competition, it also reduced the overall performance of the economic system by artificially increasing project prices. This study is one of the few that assesses the collusion problem at an individual level by seeking a better understanding of the decision-making process and motivational or behavioural aspects accounting for why individuals accept to participate in such agreements. A questionnaire survey was also employed to identify the factors that shaped decision-makers' attitudes and decisions regarding workers in Australia's top twenty-four construction firms in June 1997. Respondents were separated into two groups, depending on whether they would or would not consider engaging in collusive agreements. Those willing to engage in collusive agreements were younger, more highly qualified, less experienced in the industry, worked for more companies, and felt a lower level of job satisfaction and company loyalty. None of the respondents in this latter group held a high position in the company. Moreover, the concern for legality in this group is a lot lower than in the law-abiding group of respondents. Indeed, they seemed to rely more on what their colleagues and employers would think of their actions rather than on the straightforward legal consequences. Such results reflect the increasingly individualistic outlook and risk-adverse behaviour that is likely to affect this and other industries in the future as younger generations emerge more prominently in the workforce.

While the Australian experience represented a degenerative process that was very much like that observed in the Netherlands during the 1990s, researchers of this context in this country have centred specifically on the general ethical issues that engulfed the more specific factors that were indicative of the rise in deviant practices. We remain attentive to the importance of the ethical ambiance that sustains such a deviant business environment, and this theme will be

addressed in the report's conclusion, but it is our belief that the path to changing the ethical approach toward business and contracting in a country's construction industry is through the reduction of opportunities to take part in various deviant practices. We may rightfully assume that the Australian experience, like the Quebec experience, shares many of the same factors as that observed in the US, Italy, and the Netherlands. We thus move on to the next international context with greater attention given to the ethical features of business practices, but with a continuous search for the main and more specific factors of collusion and corruption in the construction industry.

The Indian Experience

Only one study was conducted in the Indian context. Weinstein (2008) retraces Mumbai's organized crime groups and their involvement in different sectors of society from the 1950s until the shift toward a free-market economy in the 1990s. This study, as with most research in the American and Italian contexts, is directly concerned with the presence of organized crime groups. The study is a classic case in point of the *organizing* crime phenomenon. Weinstein's aim was "to examine the conditions that enabled Mumbai's large, well-financed mafia organizations to move into land development, joining the throngs of financiers and developers who have invested in the city's lucrative property markets and construction industry since the mid-1990s" (p. 23). The main premise guiding the study is that the massive urban shift that occurred in Mumbai since the 1990s "facilitated the movement of Mumbai-based OCGs into land and property development, resulting in their increased influence over urban governance and local property relations" (p. 25). The presence of organized criminal groups in the construction industry begins in the 1950s with the rapid rise in slums and shantytowns, slumlords, and local *goondas* who positioned themselves as providers of basic needs, housing, and services that the state could not afford to offer to the population living in such areas. In short, a demand for alternative (or private) protection was born and this gradually led to members of the main organized crime groups dealing directly with local politicians and authorities. As in other contexts in which the upper and underworlds unite, this symbiotic setting was marked by increasing bribes, vote fixing, and impunity of illegal activities. While organized crime became the main suppliers of protection to segments of the local populations, they also became more entrepreneurial by establishing large criminal enterprises in the production and distribution of products, such as alcohol, gold, and luxury items. During the late 1970s and the 1980s, and as the gradual legalization of alcohol took place in Mumbai, these groups shifted their criminal activities while their ties with the city's main political parties and officials increased. There were also claims that their criminal operations shifted worldwide (to Karachi, Dubai, Kuala Lumpur, Persian Gulf, Malaysia and identified links with London, Johannesburg and New York), thus giving them access to more sources of power and money. Moreover, as a result of back-to-back wars with China and Pakistan, India raised its taxes on the importation of goods and gold, thus providing extra opportunities for these criminal groups who were already in a formidable position to smuggle these items with the help of local political and law-enforcement officials.

By the late 1980s, the liberalization of the economy forced these criminal groups to shift their activities once again, particularly since they were now in direct competition with legitimate enterprises that had become less limited in importing goods and gold. The criminal groups in Mumbai thus enhanced their drug-related activities in Afghanistan, Pakistan, and Myanmar. They also became involved in the financing of production in the film industry. Finally, the rising price for real estate in the mid-1990s created a massive opportunity for these groups who became significantly involved in land and property development. These opportunities were boosted by the “sale of hundreds of acres of former textile mill lands in the virtual centre of the city due to the decline of the industrial context in Mumbai” (p.31).

Such evidence is very much anecdotal and must be examined through more systematic analyses, but the historical trajectory of these groups is very much consistent with similar organizing crime phenomena emerging elsewhere in Europe, North American and elsewhere in Asia. What was once a purely criminal element had become a formidable actor in more than one legitimate sector. Weinstein points and cites other research (Raghavan, 2003; Kumar, 2005; Sen, 2005) that illustrate “the payment of bribes and permit fees, the use of violence and threats, as well as the use of ‘black’ money to finance land acquisition and property developments, including the construction of shopping malls, residential buildings and hotels” (p. 32).

The main factor emerging from Weinstein’s study of the Mumbai context was the fact that organized crime groups were able to maintain their criminal activities for such a long period of time and to constantly adapt their criminal activities to the evolving social and economic context. Additional factors extending from the sustainability of such groups were their wealth and immediate access to large sums of money. This financial capital had been growing since the 1950s. As argued by the author, the integration of criminal groups within this market could not have been possible without the “political and economic opportunities associated with liberalization and globalization (...) in Mumbai’s development sector” at the end of the 1980s (p.24). Finally, the failure of the state to provide adequate housing for all the population of Mumbai in the 1950-1960s resulted in the proliferation of low quality slums and shantytowns. Organized crime groups essentially emerged as the main providers of goods, needs, and services. The rise of such a private protection market led to the creation increased links with political parties. As earlier assessments in other areas of the world have demonstrated, the Mumbai experience is not unique in any way.

Factors from the Indian experience:

- emergence of new and booming markets;
- failure of state to provide adequate housing or infrastructures

The Japanese Experience

Research on deviant practices in Japan's construction industry focuses on the post-WWII rebuilding of that country and the economic changes that swept the nation throughout the 20th century. A general analysis was provided by Hill (2003) in his study of the yakuza (*aka*, the Japanese Mafia). Hill follows Gambetta's (1993) private protection thesis and maintains that yakuza members have traditionally filled this role in Japanese society. In this sense, the presence of the yakuza in the construction industry was due to the need for protection and not as active members of collusive practices. As elsewhere in the world, construction projects are in constant threat from material sabotage and theft. Also, because delays are costly, such alternative protection services were of high demand. Finally, because the workforce was large and essentially unskilled, an organizing force was necessary. Thus, Hill's conclusion on yakuza presence in the Japanese construction industry stressed the protection necessity to reduce costly delays, while also pointing to the important mafia presence in union contexts in which yakuza members were highly involved as labour brokers. He argued that the yakuza had "partial control" over this sector, quoting an interview with a participant in the construction industry, who stated that the "standard fee to ensure trouble-free construction" to be three percent of the total cost for a construction project.

While Hill's study provides a general overview of organized crime presence in Japan's construction industry, McCormack's (1995) study provides a more detailed historical assessment of this sector from the end of WWII until 1993, following the collapse of the Liberal Democratic Party (LDP) after multiple corruption scandals. Since the end of the war, a system involving businessman, organized crime members, and politicians had gradually been implanted in Japan. McCormack argued that such a system was well in place during the mid-1990s. Japan has generally been referred to as a "construction political economy", a "construction state" (*doken kokka*), or a state in which "construction is incidental to the reproduction of power and the distribution of profit" (p. 27). A major crisis erupted in 1993 when endemic collusion linking powerful men within the government to projects involving hospitals, railway lines, and universities was exposed. This resulted in a turn in the country's political climate and the introduction of reforms aimed at introducing some level of competition in the industry. For McCormack, such reforms were more symbolic than effective and the system soon returned to its old structure after the LDP regained power in 1994.

McCormack's analysis begins by comparing Japan's construction industry to the "military-industrial complex" in the United States. Since WWII, Japan has invested more money annually in its construction sector than the United States has in its military sector during the heights of the Cold War. Since 1955, the (LDP) has reigned over the country, except for a period of approximately eleven months in 1993-1994. This one-party rule was highlighted as the main factor explaining the continuously and self-reproducing state of corrupted officials/politicians who were active in Japan's construction industry. The state of affairs in Japan's construction

industry is one of systemic collusion (*yuchaku*) and is characterised by continuous links between “political bosses, businessmen, bankers, bureaucrats and occasionally gangsters” (p. 28). The author describes the regular pattern in which contracts are allocated as a very selective process in which the Ministry of Construction gives contracts to firms who are well-known for belonging to different cartels. Competition is not a priority since such firms are assured to have contracts on a regular basis. Moreover, the prices for such contracts are usually inflated, thus guaranteeing high profit margins for construction firms in the process. In exchange, the firms receiving contracts secure retirement plans for politicians and help them win their elections. One of the main consequences of such a corrupt system was the creation and building of unnecessary construction projects: artificial islands, pointless roads and useless infrastructures, while destroying the environment and focusing on a “political economy of alienation and exploitation”, both for its citizens and its resources.

McCormack’s study is the only detailed assessment that we found on the Japanese construction industry, but a similar account of Japan’s administrative structure was also described by Milhaupt and West (2000) in their study of private protection and the functional importance of yakuza members in Japanese society. The study also focuses on post-WWII Japan, with an empirical analysis that covers the period from 1972 to 1997. Relying on empirical and conceptual evidence from Japan, Milhaupt and West demonstrate that the rise of private protection (the yakuza) was “an entrepreneurial response to inefficiencies in the property rights and enforcement framework supply by the state” (p.43). While not on the construction industry *per se*, the factors identified in this study reflect the heavy laxism that affected the country for the greater part of the 20th century. The presence of organized crime groups in the construction or other public sectors must be seen as an alternative response to state-supply or state-sanctioned services. In Japan, organized crime members traditionally provided property rights and enforcement mechanisms such as dispute mediation, real state foreclosure, corporate monitoring, lending, and crime control. Citing Gambetta (1992), the Milhaupt and West (2000) claim that “organized criminal firms often arise shortly after the historical establishment of formal property rights regimes” (p.49). This is particularly true where rapid transformation regarding property rights occurred through a short lap of time, thereby preventing the state to gradually take control over the multiple enforcement mechanisms.

Factors from the Japanese experience:

- power concentrated in a single political party;
- lax monitoring of illicit activities and impunity

The Chinese Experience

The Chinese context may appear to be radically different than most democratic settings, but much may be learned by experiences in this country. Two studies help us shape the conditions for corruption in a context where governmental stability is firmly in place. The first

illustrates how ongoing corruption practices in construction deals may lead to a serious deterioration of the quality of work and, essentially, a danger for society. The second study guides us on various reforms that may be pursued to resolve such systemic problems.

Ding's (2001) study of the construction industry in China covers the Deng Xiaoping era, concentrating particularly on the period from the mid-1980s to 1997. For years, China had dealt with multiple problems regarding efficiency and quality standards in the construction industry. Between 1986 and 1995, 723 people were killed in no less than 237 "new" building collapses. This problem was directly linked to what Ding referred to as the "quasi-criminalization" of the Chinese construction sector. The term implies three components. First, it suggests that the vast majority of deals were made for illegal gain and with illegal means. Second, it aimed at the recurrent and growing cooperation between criminal gangs and agents of the state implicated in organized corruption in the construction industry. Third, the low quality of the structures built implied that the lives of people were so much in jeopardy that severe civil penalties and criminal sanctions had to be applied against the perpetrators of such schemes.

Ding nuances that, in contrast to Western societies, the Chinese government had a monopoly over the construction contracts delivered. Based on an analysis of Chinese legal and disciplinary files and interview data gathered primarily from investigative journalists and state sector personnel involved in public works projects, the study examines the process that led to the institutionalization of corruption in the construction industry. The analysis is very much in line with the script framework that was proposed by Savona (2009) in his Italian case study. In China, a construction contract implied three parties: the project proposer, the builder, and the intermediary. The first step of a construction project began with the project proposer, a public-sector body (e.g., school, military, hospital, etc.) that would obtain funds for a specific project. The proposer was rarely an investor in the process. Instead, central or local levels of government provided public funds for construction developments. When such a project had been approved, the project-proposer instantly became the project supervisor, whose main role was to present a preliminary budget to one or more state agencies. At this point, the builder joined the process. His role was to approve and supervise the costs related to a construction project. Depending on the project, the builder had the power to accept the budget on his own or would have to consult the project proposer and investors. If a project needed more money during the building phase, the builder was responsible for finding other investments, generally at the local or central levels of government. Ding explained that construction companies selected to complete a building project were usually chosen by official agents of the project proposer, with little or no competitive bidding process taking place. The selection of a construction firm included the participation of an intermediary that generally had a special relationship with the project proposer (family, friends), privileged contacts with key actors in the funding process, or was in charge of a construction firm.

Within this process, Ding described the *huikou* or kickback phenomenon that was generally in place. *Huikou* refers to fraudulent schemes in which private gains (or public funds) “are (...) divided up chiefly among the executive personal of government bodies or state enterprise. They divide the public funds delegated to their administration without the owner’s or the principal’s knowledge and consent” (p.186). The main contractor may also subcontract the project to different firms in exchange for kickbacks, therefore reducing the funds available for the building phase. Ding claimed that the extent of kickbacks remained relatively stable at approximately three to five percent of total funds invested since the mid-1980s. Ultimately, the *huikou* tradition may be responsible for the multiple building and bridges collapses China experienced in the last decades. Indeed, construction companies with less experience and poorer equipment were favoured at the expense of more organized and qualified firms. These smaller and less experienced firms were also more likely to pay bigger kickbacks. Ding also discussed the presence of organized crime in China’s construction industry. Mafia-like groups found a niche in the construction process by obtaining contracts through violence and intimidation or by blocking legal processes and disrupting specific construction site, thus leading to costly delays for the contractor.

The second study on the Chinese experience focuses more specifically on the last two decades, during which China shifted from a planned economic system to a market driven economy. Zou (2006) examined how such changes had a direct impact on the construction industry. During this shift, the Chinese government was explicit in implementing a new business culture which promoted openness, fairness, and competitiveness in the construction sector. The central government created the Supervisory Department, a governmental institution that would supervise construction projects at different phases according to the laws and regulations in effect. However, in a sector characterized by rapid changes and in which grey areas and unclear rules quickly multiplied, some individuals and groups were fast to seize the opportunity to acquire illegal profits from construction projects through speculation and bribery. This study was thus aimed at developing practical strategies for supervisory personnel in order to ameliorate systematic inspections and reviews of multiple construction projects at various phases. Such strategies were expected to assure that the behavior and actions of officials, clients, and contractors were efficient, ethical, and in line with the existing laws and regulation.

The research mainly relies on qualitative data derived from interviews with Chinese supervisory/construction officials working for the Supervision and Construction Department at state, provincial and municipal levels and Zou’s observations of tendering practices, construction sites, and existing cases of collusive/corrupted schemes. The two main forms of corruption identified in the Chinese construction industry were those related directly to contractors and those involving professional consultant clients of government officers. The most frequent schemes were comprised of a mix of these actors who took part in administrative interference, illegal contract awarding, dubious subcontracting, confidential tendering project disclosures,

and the frequent exchange of money and in-kind benefits between contractors and government officials. Respondents claimed that corruption existed at every stage of the building process (i.e. project procurement, concept and design, tendering, and the construction phase) and that corruption practices initially emerged with government authorities and officials, who lacked the necessary ethical skills in the contract attribution process.

Zou emphasized that the centralization of the contracting process around one or a few individuals was the main factor favouring corruption. His suggestion was to implement an effective and rigorous auditing process to keep such exchanges in check. More specific factors and indicators were associated across the construction process. The project construction phase was typically marked by the unauthorized use of land, failure to obtain all necessary approvals, failure to comply with planning and land usage conditions, avoidance of fees and taxes, unauthorized changes to the scope of the project, and evasion of tender scrutiny by splitting projects into a number of small projects. The tendering stage was marked by the preferential treatment of certain tenderers, invitations to unqualified tenderers, collusion between tenderers, tenderers offering bribes, disclosure of the baseline prices or other confidential information, tender evaluation committee members seeking bribes, and the limited technical competence and integrity of evaluation committee members. The construction phase was typically marked by limited qualifications and suitability of an on-site supervision company or staff, poor checks and monitoring of on-site supervision companies, collusion between on-site supervision companies and contractors, non-compliance with design specifications, substitution of second-hand substandard and unauthorized materials, and inadequate material testing or falsification of test results. Finally, the post-construction stage was often marked by important increases in costs from the tendering process and the final costs of the contract price, limited contract compliance by the client and construction company, improper commission of electrical and hydraulic equipment or plants, and questionable approvals of progress payments and final cost evaluations.

Overall, Zou associated the rise of corruption in construction industries to both centralized and competitive contracting environments. In a centralized or monopolistic setting, too much discretionary power is given to a few individuals who are generally left unmonitored. In competitive settings, there are instead many incentives for companies to collude since it may be difficult to survive without cooperation. When asked about what should be done in order to reduce corruption, respondents suggested three main strategies: 1) enact more laws and regulations to strengthen the management of the construction sector; 2) develop a transparent work process; and 3) improve education regarding ethical and technical matters in the construction industry. Among other strategies, respondents also called for the exposure of corrupt cases to the public and a widening of the scope of action for supervisory officials to monitor and sanction corruption. Overall, the Chinese experience is very much consistent with construction industries elsewhere and such reforms reflect the administrative, cultural, and

ethical changes that are professed across the regions of the world that have experienced similar problems.

Assessing the Rise of Collusion and Corruption in the Construction Industry

Table 1 lists the main factors that were identified across the international experiences that were reviewed in this report. The first noticeable point concerns the lack of push factors emerging from a mafia-rooted phenomenon. The main factors and indicators accounting for a notable mafia presence and possible control of the construction industry in a given setting depend on an important migration or resettlement of mafiosi from other regions. As Varese (2011) study demonstrated, this migration is less likely the result of a criminal organization's strategic plan to expand and conquer new lands and more often due to state policies that relocate members of such organizations with the aim of disrupting the organization. Thus, strong mafia presence may very well be the unintended consequence of previous repressive actions. The likelihood that a mafia phenomenon will come to dominate an industry depends on the local labour force. The most vulnerable labour force is that which has a high concentration of new immigrants who are seeking manual work. Such generalized migration often leads to the creation of alternative forms of protection in which established or emerging mafiosi in a region serve as power brokers between labourers and construction firms. What is important to remember is that the path toward mafia or organized crime dominance in the construction industry is essentially through the labour force. A more advanced form of labour control requires the presence of a strong union that dominates worker employment and the overall labour process. The main cases of mafia presence in construction industries across the world relied on mafia members' penetration of strong worker unions. Without such a central hold on the labour force, mafia members or any other organization members cannot gain a prominent position in the construction industry. The union centralizes the most complex segment (labour) of a very complex industry. Gaining control of a union offers any actor a significant pull over the less organized segments of that industry. Without the centralizing force of the union, mafiosi and any other organized offenders become as disorganized as any other actor in the system. With this centralizing force, mafia presence will gradually expand to engulf other areas of the construction process, and in particular the contracting phase. This advanced scenario was well illustrated in some, but not all, Italian contexts.

Thus, organized crime presence is directly dependent on union control. This, in itself, questions the organized crime problematic that is generally and too hastily claimed when assessing such scenes across the world. The few studies that do raise direct concerns toward organized crime are generally argumentative and provide little evidence to support their claims. Some studies, such as Gabor et al (2012), link the lack of evidence to the secretive environment surrounding collusive practices in the construction industry and the inability of researchers to get to the source of the problem at hand. This may be the case in some contexts, but a thorough review of research in this area paints a very different picture.

Table 1: Summary of Factors and Indicators Accounting for Deviant Practices in the Construction Industry

| Mafia Presence | Market Structure | Administrative Features | Bidding Variations | Cultural/Political Features | Monitoring |
|--|--|---|---|---|---|
| <ul style="list-style-type: none"> - Mafiosi migration or resettlement - Generalized migration - Strong mafia presence - Mafia penetration and control of unions - Union domination of labour | <ul style="list-style-type: none"> - Time constrained industry - Large scale industry - Few large firms - Many small firms - Large, costly, and highly profitable projects - Limited technological changes - Emergence of booming markets - Frequent economic slow-downs | <ul style="list-style-type: none"> - Fragmented and decentralized industry - Multi-levelled contractual structure - Bureaucratically muscle-bound, inefficient, and underfunded administration - One-dimensional price-oriented competition (lowest bidder wins) - Authorities as both clients and law-enforcers | <ul style="list-style-type: none"> - Predatory bidding - Identical bidding - Territorial bidding - Rotational bidding - Subcontracting between competitors - Price-fixing - Foreseeable projects/contracts | <ul style="list-style-type: none"> - Demand for alternative governance - Poor levels of civic engagement - Rise of a neutralization discourse - Presence of a 'grease and feast' culture - Existence of a single political party | <ul style="list-style-type: none"> - Low rates of detection of deviant activities - Limited impact of enforcement due to mobility of resources and restricted access to construction sites - Poor sanctions, high profits - Lax monitoring of illicit activities and impunity |

When assessing problems at the root of collusive practices across the world, the common trend emerging in regard to organized crime presence is that, in most scenarios, criminal organization presence is not a necessary condition to collusive practices. Some studies have succeeded in illustrating the extent to which members of various reputed criminal organizations are dominant figures in construction industries in specific contexts, but the assumption that such milieus are controlled by organized crime or that organized crime control is a typical factor across any industry on the international scene is often a faulty one. Such views fall directly in the range of Naylor's (1997) criticisms of organized crime stereotyping, particularly in regard to the tendencies to "confound associations of criminals with a criminal association" and to "equate businesses owned by criminals with criminal businesses" (pp.33-34). Quite differently, the rise of collusive practices and possible organized crime presence in the construction industry is more likely to be a product of the industry itself and not an outcome of the penetration of criminal groups that enter the industry through deviant channels. This outlook is consistent with the *organizing* crime framework that forces us to nuance the historical processes that trace the rise of a criminal element in any given industry, market, or geographical setting.

Most of the factors and indicators accounting for the rise of collusion and corruption in the construction industry reflect the market, logistic, surveillance, and cultural components that are at the root of many of the problems that typically emerge in this sector. Unlike the mafia or organized crime factors, these elements are inherent to a system and many are subject to change if and when administrators realize that the problems they are facing are essentially the product of their own making.

Some of the most important factors and indicators are directly linked to the structural components that generally represent a construction market. Experiences across the world are consistent in demonstrating that the industry is generally large scale, time constrained, and made up of few large firms and many small firms. The small firms are typically short-lived in this highly competitive landscape, while the larger firms are more likely to find themselves with exclusive status when bidding for the larger, costlier, and highly profitable projects. An assessment of contract awarding over an extending period is likely to demonstrate that the number of bidders decreases and the size of the winning firm increases with the size of a construction project. This is not necessarily a collusion or corruption problem. This is essentially a resource challenge that could only be met by a select few of the firms in an industry. However, over time, successful large firms may create the collusive or corruption links that are required to guarantee that their competitive edge is assured from one major project to the next. Another element that reflects the construction market and that makes it vulnerable to deviant practices is found in the limited technological requirements to participate in the industry. The construction industry is dependent on manual labour and is subject to minimal technological change. This makes the industry open to a wide array of entrepreneurs who are not restricted by educational or

technical capacities. This low-skilled and low-tech labour force is one of the more vulnerable points for deviant practices. This feature is linked directly to union domination and potential organized crime emergence. The construction industry is also subject to important booms and busts. Past research has demonstrated that collusion and corruption are more likely to occur at both extremes, with incentives to make the most of a booming market and priorities to assure one's survival in times of economic slow-down.

Whereas the market structural components may be difficult to adjust for, there is much that can be done in regard to how an industry is administered. Once again, factors reflecting the more vulnerable components of a construction sector's administration throughout various phases in the process are consistent across international experiences. The many phases making up the construction process, the variability in the number and type of actors who intervene to operate and regulate across these phases, and the lack of communication between these phases generate many of the vulnerable points within the industry. The construction industry is a fragmented and decentralized industry which is subject to multi-level contractual administration. Lacking administration centralization, it becomes difficult to create an all-encompassing strategy to confront the many forms of deviant practices that emerge within the industry. Chassin and Joanis's (2010) assessment of the Quebec context illustrates to what point the industry is subject to multiple legal instances that regulate specific parts of the sector. Such a configuration was also described across international scenes. Lacking a centralizing force, deviant practices are more likely to creep in between the cracks that divide one phase or sub-sector from the next. We are not convinced that there is much that can be done to change this administrative challenge in that a centralized system exposes itself to other forms of corruption (see below), but it is imperative for regulators and administrators to understand that many of the problems that emerge over time are rooted in this fragmentation. As indicated in more than one international scene, this vast puzzle of laws and practices renders the construction industry a bureaucratic mess which is often inefficient and underfunded. Once again, such deficiencies are generally at the root of eventual deviant practices. Another factor that was repeatedly raised across cases was a competitive process that awards the lowest bidding party. Not only are such competitions diminishing the quality of work by obliging competitors to take part in the industry with a cost-cutting outlook, but such one-dimensional competitions are easily manipulated (see bidding variations below). Finally, one of the main problems affecting most construction industries is that the public sector link makes authorities both the main clients and enforcers in the industry. While many may argue that this dual role places the control of contracts and the construction process into the authority's hands, this major assumption is often the main reason accounting for why deviant practices are so easily introduced into the industry and maintained for lengthy periods of time. This control of the process is taken for granted and little is done to adjust for the emergence of breaches of this common expectation.

Probably the most obvious and initial breaches of an authority's control emerges at the bidding stage of the construction process. Few studies have thoroughly examined the structure of bidding in the construction sector, but considerable cases have been revealed for us to assess the evolution of this key phase. The ideal bidding process would have each competitor proposing an individual estimation for the overall costs of a project without any knowledge of other competitors' bids. This ideal would appear to be more of a rarity than a norm, particularly for firms that have considerable experience in taking part in bidding competitions. What is more likely is a series of deviations from this idea that reflect stifling competition, as would be the case with predatory bidding in which the main players bid lower than market value, thus eliminating any realistic competitors. Another deviation comes when cooperation is introduced to the bidding competition. Such behaviour is generally labelled anti-competitive behaviour and is most commonly reflected in cases of identical bidding, where all competitors present similar proposals, territorial bidding, in which sectors of the industry and region are divided before the bidding process begins, and rotational bidding, in which a tit-for-tat process is set in motion to assure that losing firms in one bid become the winning firms in subsequent bids. Such cooperative behaviour essentially reflects the authority's loss of control of the construction process. These red lights are the first warning signs that indicate that a system is becoming increasingly deviant. At some point, cooperatives begin to share their winnings, as would be the case when subcontracting takes place between competing firms. Most importantly, price fixing, in which the bidding process is adjusted to the highest possible value by all competitors involved, is very likely to emerge. The emergence of such cartel-like behaviour must first pass through the lesser forms of cooperative strategies that competitors introduce to the bidding process. The final step in this deviation process is the emergence of foreseeable projects and contracts, in which the main firms are essentially dictating future contracts with the inside guidance and actions of representatives of the authority. At this point, the deviation process has shifted from ideal competition, to initial forms of cooperation, to more aggressive collusion, and, ultimately, to corruption. Once again, there is much that can be observed, accounted for, and reacted to before we reach this final stage in which the authority is not simply the main client and enforcer, but also a patron to one or more competitors.

The most difficult feature to change in a collusive or corrupted construction industry is the rise of a cultural or political outlook in which such practices are accepted as the behavioural norm. Our research review illustrated that such an environment emerged in practically all contexts. Often, the rise of such an outlook was directly linked to a growing demand for alternative governance or protection. In such cases, elements of organized crime often figured prominently. However, poor levels of civic engagement, the rise of a neutralization discourse amongst participants throughout the construction process, and the general emergence of a 'grease and feast culture' were present in construction industries in the US, Italy, the Netherlands, Australia, India, Japan, and China. Thus, this component is not specific to any culture or political system. It is instead a strong indication that the culture of deviance may emerge across any

country if the proper precautions and checks are not systematically respected. Finally, the political climate or, more specifically, the concentration of power in one party was raised as a key factor in more than one context. Whether in democratic Japan or communist China, the presence of a single political party that is difficultly removed from power remains one of the principal features to influence the rise of corrupt practices. The phenomenon is probably not as simple as a ‘power corrupts’ analogy, but the long-term governance of a single party does often reduce the level of independent checks and effective criticism that is laid against such an entity.

The most obvious set of factors and indicators that were raised throughout the research review considered the absence or lack of monitoring of the construction process. This is one area which lies completely in the hands of authorities and, thus, remains the most susceptible to change. The most striking feature of the rise of collusive practices and organized crime presence across the world has been the lack of monitoring of deviant practices over an extended period. If most agree that the presence of organized crime groups in a setting is explained by a public demand for their services and a groups’ capacities to supply that service, it is also true that organized crime cannot grow and prosper without a third condition: impunity. Organized crime is the result of a trinity that combines market and enforcement dynamics: demand, supply, and impunity. This impunity factor may come in many forms, ranging from a mere *laissez-faire* approach, in which deviant practices are largely overlooked, to a full-fledged participation of enforcement agents in the construction process. The former reflects the negligence that most typically hinders construction industries across the world. The latter reflects the rare and extreme cases where the symbiotic relationship between upper and underworld actors has taken hold of the entire industry—the Chinese experience would be the closest to this latter scenario in the present review. In all cases, low rates of detection, the limited impact of law-enforcement to mobilize resources and access construction venues, and the poor sanctions relative to high profits for offenders were raised as key features of a degenerating system. If reforms of the construction industry were to begin anywhere, this would appear to be the obvious place.

Conclusion and Recommendations

New York City’s 1989 Organized Crime Task Force, some research on the Italian experience, the Japanese context, and the Indian context all identified the presence of organized crime groups as key conditions for or outcomes of collusion and corruption in the construction industries of each country. In the Dutch, Australian, and Chinese contexts, the organized crime factor was not a central element to the problems at hand. Indeed, much research from other areas of the world address the rise of collusion and corruption in the construction industry without any specific regard for organized crime presence. This is not to deny the occasional presence and possible dominance of organized crime members in construction industries across the world. Quite differently, what this general assessment suggests is that those research endeavours that identified organized crime or specific mafia presence as a key feature in a city’s or region’s construction sector designated organized crime or the mafia as the main unit of analysis from the start of the search process. The goal of such a research design is to see how organized crime fits

into the general scheme of collusion. Quite differently, in research designs that seek more widely and render organized crime presence as one factor amongst many other possible factors, the mafia threat is clearly less prominent. In short, if you seek organized crime presence in the construction industry, there is a fair chance that you will find something akin to this phenomenon, but this does not mean that the sector is completely manipulated or controlled by a mafia unit, nor does it suggest that the organized crime presence is the central factor to consider in resolving the collusion problem.

Our first recommendation is to change our mindset when it comes to dealing with organized crime. Over forty years ago, Hawkins (1969) published what remains the most important critique of organized crime policies to date. It is time that this critique and all the research that followed and supported it over the past four decades are taken more seriously in Quebec policy circles. Hawkins took on the many claims of mafia presence and domination in illegal markets and licit industries and demonstrated why such premises were exaggerated and often faulty. Hawkins' scepticism is relevant even in today's context of organized crime threats and claims. The bottom line of the critique was that proof was considerably lacking to support the many tales and accounts of mafia presence in most contexts. Believing in organized crime or mafia presence and dominance, he argued, is essentially an act of faith. At the core of his critique was the scapegoating phenomenon which centred the root of such major problems to a group of offenders that were seemingly so rationally organized and dominant that it was simply common sense for its members to take over and control whatever illegal or legal entity it aimed its efforts at. Indeed, it has always been simpler to concentrate the bulk of a problem on an easily formulated single target of outsiders than to carefully unravel the complexities that are more likely to underlie the emergence of deviant practices in most settings. A second important point from Hawkins' critique, and which is also pivotal for the present context, is the rhetoric that is generally used to substantiate the presence of organized crime and that is not, in turn, applied to establish its absence. When a single piece of anecdotal evidence is raised to denote a suspected organized crime member's involvement in any activity, generalizations of organized crime control are quick to emerge without the careful demonstration of repeated and systematic observations that would be required to validate such general statements. When, however, evidence of organized crime is not retrieved in a suspected area of organized crime activity, the claim generally highlights the secretive nature—the elusive notion of *omertà*—underlying involvement in organized crime. The organization of options in this hypothetical scenario makes it impossible to refute the organized crime claim.

The most accepted and least judgemental definition of organized crime refers to two components: the supply of illegal goods or services or the illegal supply of licit goods and services. When referring to organized crime presence in the construction industry or any other legitimate industry, we fall primarily in the second of these components and it may very well be that the Quebec context is tainted by such an organized crime presence. However, evidence for

such a claim has been limited and anecdotal at best. While there has been considerable hype revolving around Italian mafia and Hells Angels presence, there has been no systematic demonstration provided that suggests that any single or group of criminal organizations dominates the construction industry, any other legitimate industry, and, for that matter, any of the illegal markets. The factors and indicators that generate a clear mafia penetration and control of this industry come either in the form of an increase in mafioso migration and more general immigration that leads to mass employment in sectors such as the construction industry. These two factors are clearly not in place in the current provincial context and they probably have not been for over half a century. If we are concerned with an organized crime presence in Quebec's construction industry today it is more likely because we are guided by the many stereotypes that have us screaming wolf when the real set of problems are more likely to lie within our own business values and administrative system.

The threat of the mafia and organized crime has created such a distraction in our quest for the truth and a resolution that we have spent more time trying to understand how suspected business people in the construction industry are linked to suspected mafiosi than trying to understand how such people succeeded in gaining such a considerable edge in the construction sector to begin with. Hawkins swept away the threat of mafia dominance as a hypothesis that we do not need (p.51). Such a statement is as important today as it was in Hawkins' time. The claim of mafia dominance remains as "extraordinary fanciful" (p.51) today as it was then.

What the CEIC and subsequent groups of investigators and policy makers require is not the expertise of mafia specialists who share their knowledge of cases from Italy or New York City from over four decades ago. Instead, the Commission must follow the main critic of organized crime policies from four decades ago (Hawkins 1969) and turn to economists, specialists in industrial relations, management experts, public procurement specialists, and other social scientists and business experts to understand why and how the domestic construction industry was so easily manipulated by so many people and for such a lengthy period. A criminologist is not required to provide an expertise on organized crime phenomena from elsewhere in the world. A criminologist is required to demonstrate how this industry is ripe with criminal opportunities that attract many people from all walks of life. A mafioso or organized crime figure is not needed to seize and structure such opportunities. The construction industry is filled with so many unregulated and unmonitored areas that any business person with a competitive drive and readiness for deviance could make the most of such a vulnerable setting and organized him/herself therein. The construction industry was there for the taking and that is precisely what took place: it was taken.

The threat of an organized crime group is not the main problem in Quebec's or Montreal's construction industry. Whereas many may make the direct link between the Montreal and Quebec context and what occurred in New York City well into the 1980s, the present

situation in the province is radically different. We are not experiencing a union problem in the construction industry. What we have, instead, is a public procurement process that has been too easily manipulated by the more competitive players in the construction market. While many may have reduced the New York City problem to that of the Cosa Nostra members infiltrating that city's construction industry, a close reading of the main report extending from that context informs us that mob members simply took advantage of the many vulnerabilities that were quite evident in that system. This latter point is consistent with most other international experiences and the context that is most comparable to Quebec is the Dutch experience.

What the Dutch experience teaches us is that a society must be able to look inwards and assess its limits and adjust so as to avoid the persistence of past problems. The Dutch and the Japanese are at the forefront of the administrative approach to organized crime prevention. In both societies, institutional engineering efforts have guided policy makers to change the administration of problematic behaviour and this has led to cultural and ethical changes on how business actors act in their short and long term commercial affairs. Once we change our mindset and distance ourselves from the suspected threat of organized crime, a series of additional recommendations unfold to orient a pragmatic agenda that would resolve such deviant practices.

Our second recommendation extends directly from the New York City Task Force experience. One of the main challenges facing the prevention of collusive and corruption practices in the construction industry is the decentralized and fragmented structure in which contracts and projects operate and are regulated. Many would argue in favour of centralizing such an infrastructure, but this is neither realistic nor strategic. The reason why the construction industry is so dispersed is because of the many phases that make up the construction process and the participation of individuals from a high number of professions and work groups. Furthermore, and as mentioned above, the centralization of resources and administrative facets of the industry would also concentrate the opportunities for collusion in a single unit. Goldstock et al's (1989) recommendation was to develop a more decentralized monitoring system – a network. This network would assure independent checks between the agencies involved. The aim of such a network would be to not only purge the system of existing problems linked to organized crime presence and fraudulent practices, but also to block opportunities by changing the working environment in which such practices emerge and evolve. One of Goldstock et al's (1989) main recommendations was for control agencies to become more knowledgeable about the wider causes and dynamics that lead to deviant practices in such industries. This required the consultation of scholars and experts from within and beyond the industry. A new infrastructure to keep track of business and contracting processes within the construction industry was also proposed. This would include the creation of an Organized Crime Task Force, a more specific Construction Industry Strike Force, an office of Construction Corruption Prevention, and Office of Union Members Advocacy, and State and City Tax Enforcement agencies. The creation of such units would respectively address the serious crime problem that likely surrounded the

construction industry, the general construction industry itself, corruption within the public sector, relationships involving unions, and general tax issues.

A third recommendation is to keep track of the network of collusion that is in place at any moment in time. While there is no research to demonstrate such an approach within the construction industry context, research on collusion from other areas does serve as a useful guide. The most important study in this area was conducted by Baker and Faulkner (1993), who examined the network of price-fixing that was in place in the heavy electrical industry during the 1950s in Tennessee. While the Baker and Faulkner study may be dated and concerned with an altogether different industry from a very distant geographical setting, its relevance for reshaping our understanding and approach to the current state of Quebec's construction industry is indeed evident. Such conspiracies begin with a desire for competitors to cooperate rather than compete. Like the construction industry, the electrical industry is a large and diverse sector and the components for a structured network to emerge require the participation of actors from all areas of the industry. What this study revealed has direct implications for what we should expect if and when a similar network assessment is made of the domestic construction industry. First, because many phases of the electrical transformation process involve technical complexity, it becomes very difficult for conspiring participants to conceal their activities. As with many phases across the construction process, it becomes imperative for information to be shared and divulged. In many parts of the process, the need to coordinate surpasses the need to conceal. Secrecy, in short, is rarely an obstacle for uncovering deviant practices. Second, participants rarely expose themselves by maintaining a high level of direct contacts with other participants involved in the collusive practices. What Baker and Faulkner emphasize when summarizing the rise of deviance in this legitimate sector is that whereas some participants may seek to take control and become the centre of action for the collusive network, few actually take the risks of exposing themselves in this manner. Instead, what they find is that participants took many precautions to limit their physical interactions and minimize communications between each other. Overall, participants at the periphery of the network were the least likely to be exposed. Thus, what we should expect from such a collusive network is not a centralized system that exposes the core participants in the network, but a radically decentralized network in which leaders are kept to a minimum (or are completely absent) and participants dabble in collusion from afar. This is the contrary of the stereotypical organized crime phenomenon.

Our fourth recommendation is a follow-up of the previous recommendation to more closely scrutinize the networks that are in play in the industry. The present recommendation suggests an empirical path that makes use and systematically analyzes the ensemble of contracts that are awarded to firms. The most effective Quebec-based analysis that we came upon during our research review was published one week before our final deadline for this report. The study was not published by scholarly researchers in this area, but by two investigative journalists from the *Montreal Gazette* (Marsden 2012 and Gyulai 2012). While the strong focus of the media

hype surrounding the CEIC was on mafia presence in the industry and some of the more reputed names involved in the industry, these journalists had the sensible idea to turn directly to the contracts that were allotted by the City of Montreal over recent years. What they were concerned with were general patterns of deviance and warning signs that reflected typical breaches of competitive bidding. They did so without mentioning mafia presence. By assessing these contracts on a monthly, seasonal, or yearly basis, it becomes possible to keep track of abnormal patterns in the contracting process (e.g., rotational bidding; territorial bidding; predatory bidding; or inter-competitor subcontracting). Of course, one of the key obstacles facing the journalists in this recent analysis is that they did not have access to the names of the firms who lost the bids. Such information is essential to assess how interactions between winning and losing firms across bids unfold over a specific time period. Systematic analysis of the ensemble of contracts is the starting point for the identification of red flags before the system becomes increasingly deviant.

Our fifth recommendation touches on the obvious. Do not wait for a small problem to grow into a more sizeable and organized problem. This is when and how organized crime grows within such faulty systems. Lax monitoring and enforcement are the most consistent factors that were identified across the international experiences reviewed in this report. For any serious prevention effort, a system must be first monitored systematically and any forms of deviance must be reacted to with celerity and certainty. Ten-year bans from public tender bidding should be given to individuals (and not simply firms) with past convictions in any of the practices that reflect collusive or corrupt activities in any legitimate industry. Lifetime bans should be applied to repeat offenders. One option that is often taken to detect deviance in such settings is the implementation of a denunciation system. Whereas this may appear to be an effective strategy for anyone responsible for monitoring the construction process, it is strongly advised not to rely on systematic denunciation. Once again, the Dutch experience is a good guide. Van de Bunt's (2010) study of secrecy during the construction scandal that attracted considerable attention from Dutch scholars illustrates the difficulties for insiders to denounce the collusive system and for outsiders to build knowledge on growing deviance in the industry. Participants in the collusive system are essentially challenged by the considerably financial costs of breaking with the system—essentially, construction firms could not afford to leave or were thus likely to conform to the deviant practices that had taken over the industry. With such considerable constraints placed on participants within the process, it would appear that the best option for monitoring deviant behaviour would be the creation of independent groups. Goldstock et al's (1989) suggestion for an office of Construction Corruption Prevention would thus be the ideal path.

Our final recommendation concerns the path toward resolution that is chosen once collusion and corruption is uncovered. This point is essentially a follow-up of all other recommendations proposed. If there is a lesson to learn from international experiences in collusive practices in construction it is that preventive policies are likely to be more effective than repressive practices aimed at a specific group of individuals. The Dutch remain at the

forefront of this preventive or administrative approach. In a report that documents the findings of a four-country (Netherlands, Italy, Finland, and Hungary) assessment of deviant practices involving government officials, business persons, and organized (and less organized) offenders, van de Bunt and van der Schoot (2003) highlight the importance of situating the place of organized crime as part of a bigger picture and not as the object of analysis itself: “The preventive approach is not primarily aimed at the perpetrators of organised crime, but rather at the facilitating circumstances of organised crime. It addresses governments, civilians and enterprises and is an attempt to make them feel responsible for the prevention of organised crime. The message is actually quite simple: if criminal organisations are able to easily acquire or access resources, then the number of these resources have to be reduced, or made more difficult to acquire or access” (van de Bunt and van der Schoot 2003: p.9). Such facilitating factors, which have been raised and discussed throughout this report, should be the main concern.

Overall, the rise of organized crime in a given legitimate industry is preceded by a series of facilitating conditions that make that industry vulnerable to begin with. This outlook was not only raised in van de Bunt and van der Schoot’s analysis, but also guided the analyses provided by Hill (2003) and Milhaupt and West (2000) in the Japanese context and Zou (2006) in China. This approach is also consistent with one of the main concepts introduced at the beginning of this report. If any action is to be taken against the place of organized crime in legitimate industries in Quebec or elsewhere, it is fundamental for policy makers and law-enforcement officials to begin making the distinction between a straightforward organized crime phenomenon and a more subtle organizing crime phenomenon. The distinction between the two terms is not simply a play on words. It is important for understanding the source of a problem. In both cases, organized crime is the outcome. However, in the straightforward organized crime phenomenon, the rise or presence of a mafia or criminal organization in a legitimate industry is the result of a quick and direct take-over of a given sector by such offenders. Whether in Quebec or elsewhere, such an assumption has often guided popular opinion, media reports, and, unfortunately, law-enforcement practices, but, in reality there are few cases across the world in which a criminal organization has succeeded in penetrating a legitimate industry and taking control in a short lapse of time. The organizing crime concept is consistent with the administrative approach that has been developed by researchers in various countries because it is sensitive to the problems within an industry or public sector that attract and generate a higher grade of deviance if little or nothing is done to confront the initial set of problems. Thus, whether in the Cosa Nostra’s rise in the New York City construction industry, the ‘Ndrangheta’s rise in Bardonecchia, or the functional role of the yakuza in post-WWII Japan, the criminal opportunities offered by the industry or sector were the source not simply for crime, but for the increasing organization of crime. For all the factors and indicators outlined across this report, such industries are there for the taking and, if nothing is done to prevent the initiation and rise of abusive practices, they will be taken and this will result in a more organized crime-based system of contracting, labour management, project

management, and general administration. From the organizing crime perspective, organized crime is not a threat to the legitimate sector, but a direct product of that legitimate sector. The bad news is that we (and not them) are to blame for the predicaments that we find ourselves in after years of ignoring a growing problem. The good news is that we are able to react to such problems and prevent them from emerging.

References

- Baker, W.E., & Faulkner, R.R. (1993). "The social organization of conspiracy: Illegal networks in the heavy electrical equipment industry", *American Sociological Review*, 58(6), 837-860.
- Block, A.A. (1991). *Business of Crime: A Documentary Study of Organized Crime in the American Economy*. Boulder, CO: Westview Press Inc.
- Block, A.A., & Chambliss, W.J. (1981). *Organizing Crime*. Maryland Heights, MO : Elsevier Science Ltd.
- Brockmann, C. (2009). "The mechanics of collusion", *Organization, Technology and Management in Construction: An International Journal*, 1(2), 51-58.
- Chassin, Y., & Joanis, M. (2010). *Détecter et prévenir la collusion dans les marchés publics en construction* (Rapport no. 2010RP-13). Montréal, Québec: CIRANO.
- Den Heuvel, G.V. (2005). "The parliamentary enquiry on fraud in the Dutch construction industry collusion as concept between corruption and state-corporate crime", *Crime, Law and Social Change*, 44, 133-151.
- Ding, X. (2001). "The quasi-criminalization of a business sector in China: Deconstructing the construction-sector syndrome", *Crime, Law, and Social Change* 35, 177-201.
- Dorée, A.G. (2004). "Collusion in the Dutch construction industry: An industrial organization perspective", *Building Research and Information*, 32(2), 146-156.
- Fijnaut C., Bovenkerk F., Bruinsma G., & Van de Bunt H. (1998). *Organized Crime in the Netherlands*. Kluwer Law International.
- Friedrichs, D.O. (2010). *Trusted Criminals: White Collar Crime in Contemporary Society*. Belmont, CA: Wadsworth Cengage Learning.
- Gabor, T., Kiedrowski, J., Hicks, D., Levi, M., Goldstock, R., Melchers, R., & Streggers, E. (2011). *Economic sectors vulnerable to organized crime: Commercial construction* (Report No. R-027). Ottawa, Canada: Public Safety Canada.
- Gambetta, D. (1993). *The Sicilian Mafia: The Business of Private Protection*. Cambridge: Harvard University Press.
- Gambetta D., & Reuter P. (1995). "Conspiracy among the many: The mafia in legitimate industries", in G. Fiorentini and S. Peltzman's (eds.) *The Economics of Organised Crime*. Cambridge: Cambridge University Press.
- Goldstock, R., Marcus M., Thacher T., & Jacobs J.J., (1989). *Corruption and Racketeering in the New York City Construction Industry: The Final Report of the New York State Organized Crime Taskforce*. New York University Press.

- Graafland, J.J. (2004). "Collusion, reputation damage and interest in codes of conduct: The case of a Dutch construction company", *Business Ethics: A European Review*, 13(2-3), 127-142.
- Gupta, S. (2001). "The effect of bid rigging on prices: A study of the highway construction industry", *Review of Industrial Organization*, 19, 453-467.
- Gyulai, L. (2012). "Montreal construction bids are paved with questions", *Montreal Gazette*, September 15, 2012.
- Hawkins, G. (1969). "God and the Mafia", *The Public Interest* 14: 24-51.
- Hill, P. (2003). *The Japanese Mafia: Yakuza, Law and the State*. Oxford, UK: Oxford University Press.
- Ichniowski, C. & Preston, A. (1989). "The persistence of organized crime in New York City construction: An economic perspective", *Industrial and Labor Relations Review*, 42(4), 549-565.
- Jacobs J. (1999). *Gotham unbound: How New York City was liberated from the grip of organized crime*. New York, New York University Press.
- Jacobs J., & Anechiarico F. (1992). "Blacklisting public contractors as an anti-corruption and racketeering strategy", *Criminal Justice Ethics*, 11(2), 64-76.
- Kenny, C. (2007). *Construction, corruption and developing countries* (Report No. 4271). Washington, DC: The World Bank.
- Kumar, S. (2005). Dawood shifts to retail and tourism: The gang owns top gutkha brands: police. *The Chandigarh Tribune*, 22 February.
- Lavezzi, A.M. (2008). "Economic structure and vulnerability to organized crime: Evidence from Sicily", *Global Crime*, 9(3), 198-220.
- Marsden, W. (2012). "How deep will the Charbonneau Commission dig?", *Montreal Gazette*, September 15, 2012.
- McCormack G. (1995). "Growth, construction, and the environment: Japan's construction state", *Japanese Studies*, 15(1), 26-35.
- Milhaupt, C.J., & West, M.D. (2000). "The dark side of private ordering: An institutional and empirical analysis of organized crime", *University of Chicago Law Review*, 67, 41-98.
- Naylor, R.T. (1997). "Mafias, myths, and markets: On the theory and practice of enterprise crime", *Transnational Organized Crime*, 3(3), 1-45.
- Nielsen, R.P. (2003). "Corruption networks and implications for ethical corruption reform", *Journal of Business Ethics*, 42, 125-149.
- Price Waterhouse Coopers (2010). *Engineering and construction sector summary: Global economic crime survey*.
- Raghavan, R.K. (2003). 'D' Company on the run? *Frontline*, 20(4).
- Savona, E.U. (2009). "Infiltration of the public construction industry by Italian organized crime", in Bullock K., Clarke R.V., & Tilley N. (eds.) *Situational Prevention of Organized Crimes*. Willan.

- Schneider S. (2004). "Organized crime, money laundering and the real estate market in Canada", *Journal of Property Research*, 21(2), 99-118.
- Sen, S. (2005). Rajan's properties to be attached. *Times of India* 24 December.
- Sexton J. (1989). "Controlling Corruption in the Construction Industry: The Quebec Approach", *Industrial and Labor Relations Review*, 42(4), 524-535.
- Thacher T. (1995). "Combating corruption and racketeering: A new strategy for reforming public contracting in New York City's construction industry", *New York Law School Review*, 40, 113-142.
- Transparency International (2006). *Preventing corruption on construction projects*, UK Anti-Corruption Forum.
- Van de Bunt, H.G. (2010). "Walls of secrecy and silence: The Madoff case and cartels in the construction industry", *Criminology and Public Policy*, 9(3), 435-453.
- Van de Bunt, H.G., & Van der Schoot, C. (2003). *Prevention of Organized Crime: A Situational Approach*. The Hague: Eleven International Publishing.
- Van Den Heuvel G. (2005). "The parliamentary enquiry on fraud in the Dutch construction industry. Collusion as concept between corruption and state-corporate crime", *Crime, Law and Social Change*, 44(2), 133-151.
- Van Dijk, J. (2007). "Mafia markers: assessing organized crime and its impact upon societies", *Trends in Organized Crime*, 10(4), 39-56.
- Varese, F. (2001). *The Russian Mafia: Private Protection in a New Market Economy*. Oxford, UK: Oxford University Press.
- Varese, F. (2006). "How Mafias Migrate: The Case of the 'Ndrangheta in Northern Italy", *Law and Society Review* 40, 411-444.
- Varese F. (2011). *Mafia on the Move. How Organized Crime Conquers New Territories*, Princeton: Princeton University Press.
- Vee, C., & Skitmore, M. (2003). "Professional ethics in the construction industry", *Engineering, Construction and Architectural Management*, 10 (2), 117-127.
- Weinstein, L. (2008). "Mumbai's development mafias: Globalization, organized crime and land development", *International Journal of Urban and Regional Research*, 32 (1), 22-39.
- Zarkada-Fraser, A. & Skitmore, M. (2000). "Decisions with moral content: collusion", *Construction Management and Economics*, 18(1), 101-111.
- Zou, P.X.W. (2006). "Strategies for Minimizing Corruption in the Construction Industry in China", *Journal of Construction in Developing Countries*, 11(2), 15-29.