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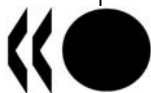
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**DIRECTORATE FOR FINANCIAL AND ENTERPRISE AFFAIRS
COMPETITION COMMITTEE**

COMPETITION IN THE CONSTRUCTION INDUSTRY

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FOREWORD

This document comprises proceedings in the original languages of a Roundtable on Competition in the Construction Industry held by the Competition Committee in June 2008.

It is published under the responsibility of the Secretary General of the OECD to bring information on this topic to the attention of a wider audience.

This compilation is one of a series of publications entitled "Competition Policy Roundtables".

PRÉFACE

Ce document rassemble la documentation dans la langue d'origine dans laquelle elle a été soumise, relative à une table ronde sur le secteur du bâtiment qui s'est tenue en Juin 2008 dans le cadre du Comité de la concurrence.

Il est publié sous la responsabilité du Secrétaire général de l'OCDE, afin de porter à la connaissance d'un large public les éléments d'information qui ont été réunis à cette occasion.

Cette compilation fait partie de la série intitulée "Les tables rondes sur la politique de la concurrence".

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EXECUTIVE SUMMARY

By the Secretariat

Considering the roundtable discussion, the delegates' written submissions and the issues paper, several key points emerge:

- (1) *The construction industry is a vital component of every OECD economy.*

The construction sector is responsible for building new houses, apartments, factories, offices and schools. It also builds roads, bridges, ports, railroads, sewers and tunnels, among many other things. In addition, it maintains and repairs all of those structures and produces the basic materials such as concrete that are used to make them. The industry's significance is due not only to the fact that it provides the buildings and infrastructure on which virtually every other sector depends, but to the fact that it is such a sizeable sector in its own right. The construction industry is Europe's largest industrial employer, accounting for about seven percent of total employment, and in the EU, the US and Japan combined, it employs more than 40 million people. Among all OECD countries, the construction industry accounts for an average of 6.47 percent of GDP.

- (2) *Concentration levels and the nature of competition vary among the product and service markets in the construction industry.*

Taken as a whole, the industry appears to be overwhelmingly made up of small, local firms with fewer than 20 employees. These firms produce most of the industry's output. On the other hand, the importance of the relatively small number of large firms cannot be underestimated. Their employees tend to produce a disproportionately high percentage of industry output.

Because of the very large number of small firms, the entire industry is often characterized as unconcentrated. That description is too broad, however, because not all construction companies do overlapping work and some segments are much less fragmented than others. For example, a limited number of general contractors are capable of managing the very large projects, whereas there are a great many small subcontractors. Competition among large general contractors and among specialty firms seems to be oligopolistic, while rivalry among small contractors who do basic labour tends to be closer to perfect competition. Furthermore, different types of firms can serve very different functions and so may have more of a vertical relationship than a horizontal one.

- (3) *Historically, cartels have affected the construction industry in many OECD countries and that problem does not appear to be subsiding.*

The construction industry has acquired a certain degree of notoriety in many jurisdictions, where it is well-known that the sector has long been subject to cartel activities. Lord Borrie, former Director General of Fair Trading in the UK, once said that construction has the worst record of cartelisation of any industry. Despite an international trend toward harsher penalties against hard-core cartels in general and many successful prosecutions against construction firms in particular, recent enforcement activities in numerous countries show that this sector continues to be fertile ground for some competition agencies.

- (4) *Nevertheless, opinions differ on whether the construction sector is more prone to anticompetitive practices than other sectors.*

Most delegates hold the view that this sector seems to be very prone to competition law infringements. They argue that when relevant markets are defined, as opposed to considering the whole industry, competition is often limited because many firms are specialized or cannot compete on large projects. Furthermore, transportation costs and safety or environmental standards may constitute formidable entry barriers in some construction markets. Obviously, limited competition and substantial entry barriers can facilitate many different types of anticompetitive conduct, including unilateral and horizontal varieties. In addition, procurement procedures for construction projects are often conducive to collusion. There are at least two reasons for that. First, the procedures are often designed to be transparent so as to discourage corruption. In other words, the identity of the bidders and the amount of their bids are sometimes released to the public, although normally on an individual basis. Second, in some OECD countries procurement officials sometimes intentionally limit the number of bidders, which also facilitates collusion.

In contrast, other delegates believe that the construction sector is not particularly inclined toward anticompetitive practices, or at least not to cartel formation. They contend that strong economic growth and booming building activity have made cartels unnecessary in the eyes of construction firms. They also note that many relevant markets in the construction industry are not very concentrated.

- (5) *One special issue that has come up in a number of construction cases around the world concerns the use of bidding software, which has been used as an excuse for what appears to be collusion.*

Contractors sometimes use this software to assist them in calculating the amounts of their bids. The use of such programs by multiple rivals has occasionally become a concern, particularly when they used the same software. There is an obvious risk that in such situations the software could be used as a tool to facilitate collusion. In some cases, when authorities noticed suspiciously similar bids, the companies claimed that it was to be expected that the bids would be similar because the firms were all using the same bidding software. Several agencies have been able to show that such claims cannot always explain the similarities in bids. They did so by using the software themselves as if they were going to submit bids. It was determined that the probability that even the same bidding software would generate such similar bids for companies who had been acting independently was quite low.

- (6) *Although cartels tend to be harder to maintain as the number of participants increases, construction cartels involving dozens and even hundreds of firms have been detected. Those cases present challenging case management issues and call for innovative solutions by enforcement agencies.*

In 2002, for example, the Dutch government exposed rampant collusion throughout the Netherlands' construction industry. 481 leniency applicants came forward and approximately 650 companies were implicated. The nature and scale of these cases forced the Netherlands Competition Authority to develop new approaches to investigating and sanctioning cartel activity. It therefore established a construction industry task force to tackle the investigative work. To minimize procedural delays, the authority introduced an accelerated sanctions process that reduced the fines for companies that agreed not to contest their prosecution. Approximately 90 percent of the companies chose that process. Germany's Bundeskartellamt has also used a

combination of leniency and a special task force to achieve successful results in discovering and punishing construction cartels.

SYNTHÈSE

par le Secrétariat

La table ronde, les contributions écrites des Délégués et la note de réflexion mettent en lumière plusieurs points importants :

(1) *Le secteur de la construction représente un volet essentiel de l'économie dans la zone OCDE*

La construction de maisons, d'appartements, d'usines, de bureaux et d'écoles ne constitue qu'une partie des activités de ce secteur ; on mentionnera également, entre autres, les routes, ponts, ports, voies ferrées, égouts et tunnels. Par ailleurs, le secteur entretient et répare ces différentes infrastructures, et produit les matériaux de base nécessaires à ces travaux, comme le béton. Son rôle majeur tient non seulement au fait que nous lui devons les bâtiments et infrastructures dont la quasi-totalité des autres secteurs dépendent, mais aussi un volume d'activité considérable qu'il représente à lui seul. Premier employeur industriel d'Europe, il regroupe quelque 7 % du total des emplois, et, pour l'UE, les États-Unis et le Japon réunis, le secteur fait travailler plus de 40 millions de personnes. Dans l'ensemble des pays de l'OCDE, le secteur du bâtiment et des travaux publics (BTP) représente en moyenne 6.47 % du PIB.

(2) *Le degré de concentration des marchés de produits et services et la nature de la concurrence sont variables dans le secteur de la construction*

Dans l'ensemble, les petites entreprises employant moins de 20 personnes sont très largement majoritaires, et assurent l'essentiel de la production dans ce domaine d'activité. En revanche, il convient de ne pas sous-estimer le rôle des quelques grandes entreprises du secteur qui, bien que peu nombreuses, affichent un énorme volume de production.

Les petites entreprises étant extrêmement nombreuses, on considère fréquemment que le secteur est dispersé. Toutefois, ce terme est trop général parce que les activités des entreprises de construction ne se chevauchent pas systématiquement et certains segments sont beaucoup moins fragmentés. Par exemple, le nombre d'entreprises générales capables de gérer des projets de très grande envergure est limité, alors que les petits sous-traitants ne manquent pas. La concurrence entre gros entrepreneurs et entreprises spécialisées semble relever davantage de l'oligopole, tandis que la rivalité entre petites entreprises – lesquelles effectuent des travaux de base – se rapproche davantage d'une concurrence idéale. En outre, différents types d'entreprises, dont la relation est verticale plutôt qu'horizontale, remplissent des fonctions différentes.

(3) *Traditionnellement, les ententes sont monnaie courante dans de nombreux pays de l'OCDE et ce problème semble perdurer*

Dans de nombreux pays, les entreprises du bâtiment sont connues pour se livrer à de nombreuses ententes. Ancien directeur général de Fair Trading pour le Royaume-Uni, Lord Borrie a déclaré

un jour que la construction détenait un record en la matière, surpassant toutes les autres branches d'activité. En dépit d'une tendance internationale à l'application de sanctions plus sévères contre les ententes injustifiables en général et, en particulier, de la multiplication des actions en justice fructueuses contre des entreprises du bâtiment, ce secteur reste un domaine de prédilection pour l'action des Autorités de la Concurrence.

(4) *Néanmoins, les opinions divergent sur le point de savoir si le secteur du bâtiment est plus vulnérable aux pratiques anticoncurrentielles*

La plupart des Délégués estiment que ce secteur paraît très vulnérable aux violations du droit de la concurrence. Selon eux, lorsqu'on parle de marchés spécifiques, par opposition à l'ensemble du secteur, la concurrence est souvent limitée par le fait que de nombreuses entreprises sont spécialisées ou ne sont pas en mesure de concourir pour de grands projets. De surcroît, les coûts de transport et les normes relatives à la sécurité ou à l'environnement peuvent ériger des obstacles à l'entrée considérables sur certains marchés du BTP. De toute évidence, concurrence réduite et barrières importantes à l'entrée peuvent favoriser de multiples formes de conduites anticoncurrentielles, notamment des pratiques unilatérales et horizontales. En outre, les procédures de passation de marchés pour des projets de construction sont souvent propices à la collusion. Au moins deux raisons expliquent ce phénomène. D'une part, les procédures sont souvent conçues dans un souci de transparence afin de dissuader la corruption. En d'autres termes, l'identité des soumissionnaires et le montant de leurs offres sont parfois divulgués au public, bien qu'en général sur une base individuelle. D'autre part, dans certains pays de l'OCDE les agents chargés des marchés limitent parfois volontairement le nombre de soumissionnaires, ce qui favorise là encore la collusion.

D'autres Délégués pensent au contraire que le secteur du BTP n'est pas particulièrement sujet aux pratiques anticoncurrentielles, ou du moins à la formation d'ententes. Ils prétendent que la croissance économique soutenue et l'essor des activités de construction ont rendu les ententes inutiles pour les entreprises du secteur. Ils observent également que de nombreux marchés du secteur ne sont pas très concentrés.

(5) *Plusieurs affaires impliquant des entreprises du bâtiment dans le monde concernent l'utilisation d'un logiciel de calcul des offres, argument invoqué pour se disculper d'une accusation de collusion*

Il arrive que des entrepreneurs utilisent ce type de logiciel pour les aider à calculer le montant de leurs offres. L'utilisation de ces programmes par de nombreux concurrents peut devenir problématique, surtout s'ils emploient le même logiciel. Dans ces circonstances, le risque est évident que cet instrument puisse favoriser les collusions. Dans certains dossiers, lorsque les autorités détectent des offres suspectes car similaires, les entreprises prétendent que ce n'est pas étonnant dans la mesure où elles utilisent toutes le même logiciel de calcul. Plusieurs autorités de la concurrence ont démontré que ces arguments n'expliquent pas toujours les similitudes dans les offres. Elles l'ont fait en utilisant le logiciel pour établir elles-mêmes une offre fictive. Elles ont conclu que la probabilité que le même logiciel de calcul aboutisse à des offres similaires entre des entreprises agissant en toute indépendance est très faible.

- (6) *Bien qu'il soit de plus en plus difficile de maintenir des ententes à mesure que le nombre de participants augmente, les autorités de la concurrence ont détecté des ententes dans le secteur du BTP faisant intervenir des dizaines, voire des centaines d'entreprises. Ces affaires posent d'épineux problèmes de gestion des dossiers judiciaires et exigent des solutions innovantes de la part des autorités chargées d'appliquer la législation*

En 2002, par exemple, le gouvernement néerlandais a mis au jour une collusion rampante à tous les niveaux du secteur du bâtiment aux Pays-Bas. 481 demandes d'indulgence ont été soumises et ce sont au total quelque 650 entreprises qui ont été concernées. La nature et l'ampleur des actions en justice engagées par l'Autorité néerlandaise de la concurrence ont contraint cet organisme à envisager des approches nouvelles pour les enquêtes et les sanctions relatives à la constitution d'ententes. Elle a donc mis en place un groupe de travail chargé de ce type d'enquête dans le secteur de la construction. Pour réduire les délais de procédure, l'Autorité néerlandaise de la concurrence a instauré une procédure de sanction accélérée, accordant une réduction des amendes aux entreprises qui acceptaient de ne pas contester les faits. Quelque 90 % des entreprises concernées ont opté pour cette solution rapide. En Allemagne, le Bundeskartellamt a également choisi de combiner les mesures de clémence et les travaux d'un groupe de travail spécial pour obtenir des résultats positifs dans les enquêtes visant à repérer et réprimer les ententes dans le secteur du BTP.

ISSUES PAPER

By the Secretariat

1. Introduction

The construction industry is a critical component of every OECD economy. Building new houses, apartments, factories, offices and schools is only part of what this sector accomplishes. It also builds roads, bridges, ports, railroads, sewers and tunnels, among many other things, and it produces the basic materials such as concrete that are used to make them. In addition, the construction industry maintains, repairs and makes improvements on all of those structures. The industry's significance is due not only to the fact that it provides the buildings and infrastructure on which virtually every other sector depends, but to the fact that it is such a sizeable sector in its own right. The construction industry is Europe's largest industrial employer, accounting for about seven percent of total employment, and in the EU, the US and Japan combined, it employs more than 40 million people.¹ Among all OECD countries, the construction industry accounts for an average of 6.47 percent of GDP.²

Unfortunately, the construction industry has acquired a certain degree of notoriety. It is well-known that the sector has been plagued by cartel activity for decades. Lord Borrie, former Director General of Fair Trading in the UK, once said that construction has the worst record of cartelisation of any industry.³ Despite an international trend toward harsher penalties against hard-core cartels in general and a multitude of successful prosecutions against construction firms in particular, the sector continues to be fertile ground for competition enforcers. Here is a sample of recent cases:

- Turkey's Competition Board issued several decisions against cement producers for anticompetitive agreements – including price fixing and market allocation agreements – between 1997 and 2005.⁴

¹ See the European Commission's Enterprise and Industry web site at www.ec.europa.eu/enterprise/construction/index_en.htm; U.S. Department of Labour, Bureau of Labour Statistics, 2008-09 Career Guide to Industries, available at www.bls.gov/oco/cg/print/cgs003.htm; K. Reeves, "Construction Business Systems in Japan: General Contractors and Subcontractors," 30 *Building Research & Information* 413, 414 (2002).

² OECD Annual National Accounts Database [SNA] (2006).

³ Lesley Ainsworth, "Competition Law Enforcement in the Construction Industry," in John Uff & Anthony Lavers (eds.), *LEGAL OBLIGATIONS IN CONSTRUCTION* 539, 549 (1992); see also A. Hargita & T. Toth, "God Forbid Bid-Riggers: Developments under the Hungarian Competition Act," 28 *World Competition* 205, 206 (2005) (noting that the "great number of cartels in the construction industry is not unique to Hungary"); Srabana Gupta, "The Effect of Bid Rigging on Prices: A Study of the Highway Construction Industry," 19 *Review of Industrial Organisation* 453, 455 (2001) (the highway construction industry "has a long history of violating antitrust laws").

⁴ OECD, *Competition Law and Policy in Turkey* (2005) at 17, available at www.oecd.org/dataoecd/26/7/34645128.pdf.

- In 2002, after a whistleblower revealed that a major construction company was keeping secret financial accounts, the Dutch government began investigations that exposed rampant collusion throughout the Netherlands' construction industry. 481 leniency applicants came forward and overall approximately 650 companies were implicated. A parliamentary enquiry committee concluded that government agencies were defrauded by an average of 8.8 percent in public construction projects as a result of the collusion.⁵ The government imposed a total of 239 million euro in fines.⁶
- In 2003, the Bundeskartellamt imposed fines totalling approximately 660 million euro on the six largest cement manufacturers in Germany. At the time, those were the highest fines ever levied by the agency. The companies had reached quota and market allocation agreements with each other, some of them dating back to the 1970s.⁷ The entrenched and seemingly incorrigible nature of these cartels is illustrated by the fact that the Bundeskartellamt had just taken stern action against collusion in the same sector a few years earlier. It fined 33 producers a total of 300 million DM in 1999 for agreeing to restrict their sales.⁸
- In 2005, Japan's Fair Trade Commission uncovered a cartel involving approximately 50 bridge building companies, including several major firms. The JFTC filed criminal accusations with the Public Prosecutor General against six of the companies for jointly deciding the bid winners in advance, as well as against two officials from the Japan Highway Public Corporation for facilitating the bid-rigging schemes. The JFTC imposed surcharges totalling more than 12 billion yen.⁹
- In early 2007, the UK's Office of Fair Trading announced that it had such extensive, high quality evidence against a construction cartel that it was no longer offering leniency to participants.¹⁰ In April 2008, following one of the largest investigations in the agency's history, it issued a Statement of Objections charging 112 British construction firms with conspiring to rig bids in thousands of tenders. The affected projects included publicly funded schools, hospitals, and housing developments.¹¹

⁵ Hugo Priemus, "Dutch Contracting Fraud and Governance Issues," 32 Building Research & Information 306, 309 (2004).

⁶ See generally www.nmanet.nl/engels/home/News_and_publications/Theme_files/Construction_case/.

⁷ OECD, Competition Law and Policy in Germany 2002-2003, p. 6, available at www.oecd.org/dataoecd/22/21/34831942.pdf.

⁸ Bundeskartellamt, "Bundeskartellamt Imposes Fines of Over DM 300 million for Cartel Agreements among Ready-mixed Concrete Firms," Press Release (13 November 1999), available at www.bundeskartellamt.de/wEnglisch/News/Archiv/ArchivNews1999/1999_11_03.php.

⁹ Kazuhiko Takeshima, Chairman of the Japan Fair Trade Commission, "Japan's Endeavour for Establishing Rigorous Anti-Cartel Enforcement," Speech before the International Bar Assn. (New Delhi, 4 November 2006); Japan Fair Trade Commission, "The JFTC Surcharged 44 Participants in the Bid-rigging for Steel Bridge Construction Projects," Press Release (27 March 2006).

¹⁰ Office of Fair Trading, "OFT Closes Door on Cartel Leniency in Construction Bid Rigging Cases in England," Press Release (22 March 2007), available at www.oft.gov.uk/news/press/2007/50-07.

¹¹ Office of Fair Trading, "OFT Issues Statement of Objections Against 112 Construction Companies," Press Release (17 April 2008), available at www.oft.gov.uk/news/press/2008/52-08.

- Also in 2007, the Korean Fair Trade Commission imposed fines totalling several million dollars on 19 asphalt concrete manufacturers for colluding on price and sales volume.¹²

These cases raise a number of questions that could be addressed in this roundtable. For example, why does collusion occur so frequently in the construction industry? What approaches have competition agencies taken to detect and prosecute construction cartels? Of course, collusion is not the only type of anticompetitive practice that arises in the construction industry. Other issues, such as abuse of dominance and problematic mergers, can also arise in this sector. But it is generally fragmented enough that dominant firms and mergers that substantially lessen competition are unusual. Cartel activity is the most commonly occurring competition problem among construction firms, so it has been given most of the attention in this paper.¹³

2. Structural Issues

2.1 Market Definition

Market definition is a fundamental issue in merger review and unilateral conduct cases. It can also be relevant in cartel cases because it may inform the decision on how high to set the level of fines. It seems clear that there is more than one product/service market within the construction industry. Common sense goes against putting all buildings and structures, for example, into a single product market for “buildings.” Building a house is very different from building a football stadium. Most if not all firms who build homes would not be able to build stadiums. Furthermore, it is doubtful that a firm specializing in something like fitting pipes could suddenly shift to master carpentry work.

Another consideration is that some construction firms do not make any products at all; rather, they provide the service of organizing the construction process, leaving it to subcontractors to do the actual building work. Other firms provide a bundle of services, such as production, installation, and maintenance of heating, ventilation, and air conditioning systems.

With respect to the relevant geographic market, transportation costs are obviously an important factor. A firm wishing to bid on projects located well away from its base of operations will face substantial transportation costs for its labour, materials and equipment. Firms in the local area of the project site will, of course, have much lower transportation costs. Aside from transportation costs, some sectors within the construction industry have traits that create a firm upper bound on relevant geographic markets. For

¹² KFTC, “KFTC Detects a Cartel of 19 Asphalt Concrete Manufacturers in Seoul,” 5 KFTC Newsletter 11 (28 December 2007), available at http://ftc.go.kr/data/hwp/20071228_103433.pdf.

¹³ This paper intentionally avoids revisiting general cartel principles and best practices for dealing with them, which have been covered from various angles several times by the Committee and Working Party 3, including quite recently. See, e.g., OECD, *Plea Bargaining/Settlement Of Cartel Cases*, DAF/COMP(2007)38; OECD, *Prosecuting Cartels Without Direct Evidence of Agreement*, DAF/COMP/GF(2006)7; OECD, *Cartels: Sanctions Against Individuals*, DAF/COMP(2004)39. The subject of how to design public procurement systems in general so as to discourage collusion is not addressed, either, for the same reason. See OECD, *Public Procurement, The Role of Competition Authorities in Promoting Competition*, DAF/COMP(2007)34; OECD, *Competition in Bidding Markets*, DAF/COMP(2006)31. Because of this body of prior work, here it is possible to concentrate specifically on the construction industry and what its distinctive features imply for competition law enforcement.

example, there is a natural limit to the distance that hot-mix asphalt can be transported (up to about 65 km) without spoiling.¹⁴

How narrowly should relevant product markets in the construction industry be defined? Is it sufficient to define separate markets for commercial buildings, residential buildings, and infrastructure, or is a narrower delineation more appropriate? How much specificity is enough? What special characteristics of the industry should be taken into account when defining geographic markets?

2.2 Concentration

There is some variation in the degree to which product and service markets within the construction industry are concentrated. Overall, the industry appears to be overwhelmingly made up of small firms with fewer than 20 employees.¹⁵ These firms produce most of the industry's output. On the other hand, the importance of the small number of large firms should not be underestimated. Their employees tend to produce a disproportionately high percentage of output.¹⁶

Because of the very large number of small firms, the industry is often characterized as unconcentrated. Some parts of it, however, are much less fragmented. There is a limited number of general contractors who are capable of managing very large projects, whereas there is quite a large number of small subcontractors.¹⁷ The two types of firms serve different functions and have more of a vertical relationship than a horizontal one. Competition among the large general contractors seems to be more in the mould of oligopoly, whereas the rivalry among small contractors who do basic work such as laying bricks and pouring concrete tends to be closer to perfect competition.¹⁸

On what factors does the variation in concentration levels among construction industry markets depend? In other words, why are there only a few, relatively large firms in a small number of construction markets and many, relatively small firms in most others? Are there any discernible trends in the way concentration is changing in the industry? If so, what implications does that have for competition law enforcement?

¹⁴ US Department of Transportation and US Department of Justice, Suggestions for the Detection and Prevention of Construction Contract Bid Rigging (1983), available at www.fhwa.dot.gov/programadmin/contracts/dotjbid.htm.

¹⁵ See, e.g., Niclas Andersson & Fredrik Malmberg, "Competition and Barriers to Entry in the Construction Sector," Conference Proceedings for the 10th Symposium on Construction Innovation and Global Competitiveness pp. 461, 466 (2003) (discussing Denmark and Sweden); Gerard de Valence, "Market Structure, Barriers to Entry and Competition in Construction Markets," in National University of Singapore, KNOWLEDGE CONSTRUCTION (Proceedings of the Joint International Symposium of CIB Working Commissions) (22 October 2003), 819, 821-22 (discussing Australia); Roberto Pietroforte & Piero Tangerini, "From Boom to Bust: The Case of Italian Construction Firms," 17 *Construction Management and Economics* 419, 421 (1999).

¹⁶ In Australia, for example, only 0.62% of all construction firms have more than 20 employees, but that small percentage of firms employs 13.6% of all construction workers, and they in turn produce almost 25% of the industry's output. De Valence, *supra* note 15 at 821.

¹⁷ Hargita & Toth, *supra* note 3 at 209.

¹⁸ De Valence, *supra* note 15 at 823-24.

2.3 *Barriers to Entry*

For small construction firms, the start-up costs for entering their local market tend to be low. That may be due to the fact that relatively few pieces of equipment have to be bought. Small firms commonly lease equipment on an as-needed, project-by-project basis.

There are other financial hurdles, though. Customers with substantial projects often require construction firms to post a bond, which acts as a financial guarantee for the customer in the event that the firm is unable or unwilling to fulfil its obligations. The standard amount of the bond varies substantially from country to country, being as little as zero to as much as the entire value of the contract. These bond requirements may present formidable obstacles to new firms, especially if they are small.

Large construction companies seem to be better able to absorb transportation costs than smaller firms, so they typically manage to bid across a wider geographic area. Nevertheless, they still face some obstacles. In particular, buyers with projects suitable for large construction firms are more likely to demand a track record of successfully completed relevant projects.¹⁹ The larger the project, the more important this factor tends to be because the customer will have more at stake and thus will be less likely to take a chance with an unknown firm. This reputational factor may help to explain why the market for very large construction projects tends to be more concentrated, since it favours incumbents most heavily. The comparatively few major construction firms develop strong ties with the largest clients, making it more difficult for smaller or newer firms to acquire the kind of experience and trust needed to satisfy the clients' prequalification requirements. That means new and smaller firms may not even be allowed to bid on major projects, let alone win them.

Are entry barriers high or low in the construction industry? Does the answer vary from market to market? If so, on what factors does the variation depend (e.g., firm size, the firm's area of expertise)? Where barriers do exist, what are they? What implications, if any, does the need for good track records and client relations with respect to large construction projects have for merger review?

3. **Cartel Issues**

3.1 *Prone to Collusion?*

Dorée, et al. have stated that “[t]here seems to be a culture and an environment that induces and sustains economic offences and malpractices” in the construction industry.²⁰ Does the industry have characteristics that make it especially susceptible to cartel activities?²¹ The following list contains some features of the construction sector that bear on the likelihood of collusion in one way or another:

- *The product is simple and not very differentiated.* Relatively speaking, most construction firms are low-tech businesses. They tend to use fairly basic materials to build the same things their competitors build. Many customers do not care which firm they hire so long as the firm carries out the work according to plan and charges a comparatively low price.

¹⁹ Andersson & Malmberg, supra note 15 at 466.

²⁰ A. Dorée, E. Holmen & J. Caerteling, “Co-operation and Competition in the Construction Industry of the Netherlands,” 19th Annual ARCOM Conference (Association of Researchers in Construction Management), vol. 2 (2003), pp. 817-826 at 817.

²¹ For a review of factors that affect the ease of collusion, see OECD, Public Procurement, The Role of Competition Authorities in Promoting Competition, DAF/COMP(2007)34, Background Note at 21-23.

- *Transparent bid procedures.* The general public often has access to bid openings for construction projects, at least in auctions for public procurement. Procurement laws and administrative regulations tend to require a certain amount of transparency so as to discourage corruption. Procurement officials may be required to disclose information such as the identity of bidders and the terms and conditions offered in each bid.²²
- *The business is highly cyclical and orders are “lumpy.”* The construction sector is subject to substantial demand swings. In the Netherlands, for example, 12 percent of all bankruptcies are filed by construction firms, a fact that “reflects the construction sector’s relatively high vulnerability and sensitivity to the economic cycle.”²³ Housing, commercial building and public works all depend on flows from other major sectors. Boom and bust cycles in those other sectors therefore affect construction firms, too.
- *Inelastic demand.* Though subject to fluctuations, the demand for construction work – once it is there – tends to be fairly price inelastic. A town that needs a new sewer system, for example, is probably not going to be sensitive to modest price increases.
- *A large number of buyers.* A large and varied customer base buys construction services. It includes individuals, large and small businesses, and municipal and national governments. The size and heterogeneity of these customers make it more difficult for them to compare information than would be the case if there were only a few buyers.
- *Sub-contracting is common.* Many construction projects could not be efficiently completed without some degree of sub-contracting. Even large contractors have to rely on smaller, more specialised firms for some aspects of their projects. But sometimes a winning bidder will sub-contract part of a project to a firm that would ordinarily be its rival. In fact, firms in the construction sector often consider talking to and partnering with each other to be a normal way of doing business. Whereas in one project companies might truly behave like independent competitors, in another project they might form a joint venture or have a contractor/subcontractor agreement. That kind of complex relationship causes headaches for competition authorities because it may not be clear whether or not meetings and communications between the companies served a legitimate business purpose.²⁴

In what ways do these factors affect the probability of cartel formation? What other characteristics of the construction industry affect that probability? Does the industry have any characteristics that make such conduct especially difficult to detect and/or prove? How can such an unconcentrated industry have a recurring problem with cartels?

3.2 Types of Collusive Activities Undertaken

Cartels may engage in several different types of anticompetitive practices. These include:

- Simple price fixing
- Bid rotation (when firms agree to take turns winning bids)

²² Id., Executive Summary at 7.

²³ Hugo Priemus, “Dutch Contracting Fraud and Governance Issues,” 32 Building Research & Information 306, 307 (2004).

²⁴ Hargita & T. Toth, supra note 3 at 209.

- Bid suppression (when some firms agree not to bid)
- Cover pricing (when some firms intentionally submit bid prices that are too high to win or that carry conditions that the buyer is sure to find objectionable)
- Quota agreements
- Market sharing arrangements (when rivals allocate customers to one another according to project type or location)
- Sharing bidding fees (when a cartel charges its members a fee for bidding which they all add to their bid price; the surplus is then shared after the winner is selected)
- Collusive sub-contracting (when the winning bidder rewards cartel partners for their role by giving them sub-contracts so as to share the spoils of their scheme); and
- Information exchanges (which may not be unlawful)²⁵

What types of unlawful behaviour do construction cartels undertake most often?

3.3 Detecting Construction Cartels

Numerous factors can be informative when an agency is trying to determine whether a construction project or market has been affected by a cartel. To begin with, competition authorities will probably find it helpful to complement their own team of investigators with an engineering consultant who specialises in the type of construction at issue and a financial auditor, if possible. This group can then consider factors such as:

- Whether qualified bidders failed to bid
- Whether certain contractors repeatedly avoid bidding against one another
- Whether the winning bidder repeatedly sub-contracts work to firms that submitted higher bids on the same projects
- Whether a certain firm always wins the contracts in a certain geographic area
- For road construction projects, the US Department of Transportation and US Department of Justice suggest plotting the project locations of suspicious contracts on a map, assigning each vendor a different colour; recognizing that, as mentioned earlier, there is a natural limit to how far hot-mix asphalt can be transported (up to about 65 km), a comparison of the vendors' wins in relation to their asphalt plants on the map may reveal a pattern consistent with territorial market allocation.²⁶

²⁵ For a more exhaustive list, see John Connor, GLOBAL PRICE FIXING 27 (2d ed. 2007).

²⁶ US Department of Transportation and US Department of Justice, Suggestions for the Detection and Prevention of Construction Contract Bid Rigging (1983), available at www.fhwa.dot.gov/programadmin/contracts/dotjbid.htm. The same document contains several other factors specific to construction projects that can be taken into account when determining whether a cartel is present. For more generally applicable suggestions on what factors and suspicious behaviour should be

These factors are insufficient to prove the existence of a cartel, of course, but they can help to determine whether a deeper investigation is warranted.

What other strategies and factors for detecting cartels in construction markets are especially effective?

3.4 Case Management

The nature and scale of the Netherlands Competition Authority's cartel cases against hundreds of construction companies forced the agency to develop new approaches to investigating and sanctioning cartel activity.²⁷ In 2002 it established a construction industry task force to tackle the investigative work. The agency wanted to prevent lengthy procedures while ensuring that the sanctions imposed would motivate the companies to start competing honestly. The authority therefore introduced an accelerated sanctions procedure that gave a 15 percent fine reduction to companies that agreed not to contest the facts and infringement in the statement of objections. Approximately 90 percent of the companies chose this "fast lane procedure." The substantial time and expense that would have been necessary to hold individual hearings for hundreds of companies were therefore saved.

The Bundeskartellamt has also used a combination of leniency and a special task force to achieve successful results in discovering and punishing construction cartels. As mentioned earlier, it imposed heavy fines on the six leading manufacturers in Germany's cement industry for their part in a market allocation and quota scheme. The agency's success in doing so has been attributed primarily to the leniency programme adopted in 2000 and the establishment of a Special Unit for Combating Cartels in 2002.²⁸

The charges brought against 112 firms by the UK's OFT earlier this year were the culmination of a four-year effort. It began as an investigation of the roofing industry and quickly spread to other segments of the construction industry. Ultimately, the OFT raided 57 businesses and received 37 leniency applications. But the underlying problem was even larger than those figures suggest. In fact, the OFT eventually had to cut off the investigation because it was uncovering more cartel behaviour than the agency could process, given its resources.²⁹

How has your competition agency approached the prosecution of cartel cases in the construction industry? Have you devised any procedural strategies that have worked especially well in this sector? In particular, how can cartel cases be managed efficiently in an industry such as this one, where cartels may have dozens or even hundreds of members?

considered when a cartel is suspected in connection with procurement projects, see OECD, Public Procurement, The Role of Competition Authorities in Promoting Competition, DAF/COMP(2007)34, Background Note at 36-38.

²⁷ See generally www.nmanet.nl/engels/home/News_and_publications/Theme_files/Construction_case/.

²⁸ OECD, Competition Law and Policy in Germany 2002-2003, p. 6, available at www.oecd.org/dataoecd/22/21/34831942.pdf; Bundeskartellamt, "Bundeskartellamt Imposes Fines Totalling 660 Million Euro on Companies in the Cement Sector on Account of Cartel Agreements," Press Release (14 April 2003), available at www.bundeskartellamt.de/wEnglisch/News/Archiv/ArchivNews2003/2003_04_14.php.

²⁹ Office of Fair Trading, "OFT Issues Statement of Objections Against 112 Construction Companies," Press Release (17 April 2008), available at www.offt.gov.uk/news/press/2008/52-08; Office of Fair Trading, Information Note to Local Authorities (17 April 2008), available at www.offt.gov.uk/shared_offt/business_leaflets/general/Information-Note.pdf.

4. Arguments against competition

Historically, the construction industry has been relatively unreceptive toward the idea of open competition. In fact, its representatives have advanced arguments claiming that competition is not only irrelevant in the construction industry, but that it is actually harmful to society. Therefore, they contend, the sector should be exempt from some or all of the competition laws. Competition officials are in a position to rebuff such arguments, but how should they respond, specifically?

4.1 *The Irrelevance Argument*

Construction industry advocates point out that problems that were unforeseen when a project was conceived often arise after a winning bidder has been selected and work is underway. Such problems invariably lead to change orders for additional work, which have to be negotiated and result in increases to the original price. Therefore, the winning bid price is often lower than the actual price paid by the client, and sometimes it is much lower. Industry advocates argue that because it is rarely possible to know what the real price of a project will ultimately be even after a winning bid has been selected, competition is irrelevant in construction markets.

It is true that construction work is prone to complications that become apparent only after work has begun. For example, one fairly common problem is that hazardous materials may be discovered in or under an existing building in the course of restoration or expansion work. The cost of removing such materials can have a substantial effect on a project's budget. Another typical complication is that the standard foundation exploration does not uncover a soft soil condition, causing major additional work such as moving columns. Alternatively, rainwater may damage a structure while it is still incomplete. If the damage is only partially mitigated for some reason, mould may set in, often leading to a certain amount of fear and mistrust and therefore to the possibility of lawsuits, and perhaps finally to a costly decision to demolish and rebuild.

At least with respect to public procurement auctions, another factor often interacts with the inevitable change orders. Specifically, procurement agencies are commonly required by law to select the bidder who submits the lowest price, or else to have a very good reason for not doing so. Some bidders therefore submit unrealistically low bids, knowing that the actual fee they will receive will be substantially higher due to the change orders that will arise and have to be negotiated. The real fee, in other words, is more the result of negotiation with a single contractor than of price competition among several contractors.

One possible response to this argument is that if competition were irrelevant, then construction firms would not bother to destroy it so often by forming cartels. What other responses can be made?

4.2 *The "Ruinous Competition" Argument*

Another argument that construction firms sometimes make is that the nature of their industry makes it especially vulnerable to "ruinous competition" and that both firms and customers would be better off with more cooperation and less competition. In fact, this assertion occasionally appears in academic literature, as well. Professors Dorée, et al., claimed in a 2002 article that "[t]he construction industry seems highly vulnerable to ruinous competition."³⁰ They also contend that "emerging theoretical insights on dynamic competition" from industrial organization economics suggest that "[t]oo much competition may inhibit private enterprises from investing in Research & Technology Development and new product development."³¹ Indeed, they claim that most countries are already moving away from traditional

³⁰ Dorée, et al., supra note 20 at 818.

³¹ Id. at 817.

competitive approaches in the construction industry because competition creates a business environment that encumbers innovation and dynamic efficiency.

Grumblings about “ruinous” and “cutthroat” competition have been heard since at least the beginning of the 20th century and have not been persuasive.³² Refutations of the article by Dorée, et al., existed in academic literature on the construction industry well before they published their paper. For example, Ball, et al., published an article three years earlier that undercuts the ruinous competition argument on both theoretical and empirical grounds. In essence, they base their argument on the unsurprising principle that competitive markets work. In other words, competitive markets tend to move toward efficient equilibria where firms earn a normal long term profit. If some relatively less efficient firms fail and exit, then their exit must have been necessary for the market to reach its long run competitive equilibrium.³³

While the notion that most countries are abandoning the competition paradigm may strike enforcement officials as a bit fanciful, the point about innovation and dynamic efficiency deserves some attention. Dorée, et al., are not as specific in their support of that point as one might wish, but they seem to be saying that entry barriers in the construction sector are so low and competition is so fierce that innovation is difficult or impossible to appropriate. Any new cost-saving techniques or quality-enhancing improvements that a firm develops will simply be imitated by the firm’s numerous rivals because the construction process is so transparent. It is therefore not worthwhile to innovate, so the industry experiences an innovation gridlock. Another way of describing this argument is that it characterises the construction industry as being positioned at the far left of the inverted U-shape curve believed to depict the relationship between market concentration and innovation.³⁴ The crux of their point is that enforcers are paying too much attention to static efficiency concerns like pricing and not enough attention to dynamic efficiency concerns like innovation. Allowing more cooperation, they argue, would make it easier for firms to capitalise on their innovations, which would ultimately benefit customers.

A related point raised by these authors is that the winning bidder on construction projects is too often selected on the basis of its price alone. That suppresses competition on the basis of quality because the buyer simply assumes (or is required to assume) that all bidders offer products with equal value. That, in turn, discourages innovation that would have resulted in superior quality. Therefore, to stimulate the lacklustre level of innovation in this sector, buyers should not necessarily select the low bidder for every construction project.

Do Dorée, et al., have a point about the disadvantage of always selecting the low bidder? If the authors are correct that from a dynamic perspective there is too much competition in the construction industry and there should be more cooperation, competition authorities around the world have been making a mistake by taking actions against so many construction industry cartels over the years. How should competition enforcers reply to their argument?

³² F.M. Scherer, *INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE* 212 (2d. ed. 1980); A. Akintoye & M. Skitmore, “The Profitability of UK Construction Contractors,” 9 *Construction Management and Economics* 311 (1991).

³³ M. Ball, M. Farshchi, & M. Grilli, “Competition and the Persistence of Profits in the UK Construction Industry,” 18 *Construction Management and Economics* 733 (2000).

³⁴ See OECD, *Patents, Competition and Innovation*, DAF/COMP(2007)40, Background Note at pp. 46-48.

DOCUMENT DE RÉFÉRENCE

par le Secrétariat

1. Introduction

Le secteur de la construction représente un volet essentiel de l'économie dans la zone OCDE. La construction de maisons, d'appartements, d'usines, de bureaux et d'écoles ne constitue qu'une partie des activités de ce secteur ; on mentionnera également, entre autres, les routes, ponts, ports, voies ferrées, égoûts et tunnels, ainsi que la production de matériaux de base nécessaires à ces travaux, comme le béton. Par ailleurs, le secteur entretient, répare et améliore ces différentes infrastructures. Son rôle majeur tient non seulement au fait que nous lui devons les bâtiments et infrastructures dont la quasi-totalité des autres secteurs dépendent, mais aussi au volume d'activité considérable qu'il représente à lui seul. Premier employeur industriel d'Europe, il regroupe quelque sept pour cent du total des emplois, et, pour l'UE, les Etats-Unis et le Japon réunis, le secteur fait travailler plus de 40 millions de personnes.¹ Dans l'ensemble des pays de l'OCDE, le secteur du bâtiment et des travaux publics (BTP) représente en moyenne 6,47 % du PIB.²

Ce secteur traîne malheureusement une regrettable réputation. Il est en effet de notoriété publique qu'il pâtit, depuis des décennies, de l'existence de cartels. Ancien Directeur général de Fair Trading pour le Royaume-Uni, Lord Borrie a déclaré un jour que la construction détenait un record en la matière, surpassant toutes les autres branches d'activité.³ En dépit d'une tendance internationale à l'application de sanctions plus sévères contre les ententes injustifiables en général et, en particulier, de la multiplication des actions en justice fructueuses contre des entreprises du bâtiment, ce secteur reste un domaine de prédilection pour les services chargés de veiller au respect de la concurrence. On trouvera ci-après un aperçu de cas récents :

¹ Voir le site Internet de la Commission européenne sur les entreprises et l'industrie: www.ec.europa.eu/enterprise/construction/index_en.htm ; Guide 2008-2009 des emplois dans l'industrie, publié par l'Office des statistiques de l'emploi du ministère du Travail des Etats-Unis (U.S. Department of Labor, Bureau of Labor Statistics) disponible à l'adresse www.bls.gov/oco/cg/print/cgs003.htm ; K. Reeves, "Construction Business Systems in Japan: General Contractors and Subcontractors," 30 *Building Research & Information* 413, 414 (2002).

² Base de données de l'OCDE sur les comptes nationaux annuels [SNA] (2006).

³ Lesley Ainsworth, "Competition Law Enforcement in the Construction Industry," in John Uff & Anthony Lavers (eds.), *LEGAL OBLIGATIONS IN CONSTRUCTION* 539, 549 (1992); voir également A. Hargita & T. Toth, "God Forbid Bid-Riggers: Developments under the Hungarian Competition Act," 28 *World Competition* 205, 206 (2005) (ce document souligne que la Hongrie n'est pas le seul pays dont le secteur de la construction comprend de nombreux cartels); Srabana Gupta, "The Effect of Bid Rigging on Prices: A Study of the Highway Construction Industry," 19 *Review of Industrial Organisation* 453, 455 (2001) (« le secteur de la construction d'autoroutes viole depuis longtemps les lois antitrust »).

- En Turquie, la Commission de la concurrence a adopté plusieurs décisions à l'encontre de fabricants de ciment qui avaient conclu des accords anticoncurrentiels entre 1997 et 2005 – notamment en matière de prix et d'attribution de marchés.⁴
- En 2002, après la révélation (sur dénonciation) qu'une grande entreprise de construction tenait des comptes secrets, le gouvernement néerlandais a lancé une enquête qui a révélé une collusion rampante à tous les niveaux de ce secteur aux Pays-Bas : 481 demandes d'indulgence ont été soumises et ce sont au total quelque 650 entreprises qui ont été concernées. Une commission d'enquête parlementaire a conclu que l'Etat était escroqué en moyenne de 8,8 % du montant des marchés publics de construction.⁵ Le gouvernement a infligé des amendes de 239 millions d'euros au total.⁶
- En 2003, le Bundeskartellamt a infligé environ 660 millions d'euros d'amendes aux six principaux cimentiers d'Allemagne. Il s'agissait alors des pénalités les plus importantes jamais imposées par cet organisme. Les entreprises concernées avaient conclu, en matière de quotas de production et d'attribution de marchés, des accords dont certains remontaient jusqu'aux années 1970.⁷ Or, le Bundeskartellamt avait déjà pris, quelques années auparavant, des mesures draconiennes contre la collusion dans le même secteur, ce qui montre que la pratique des ententes est bien enracinée, voire - semble-t-il - incorrigible. Trente-trois cimentiers ont dû s'acquitter au total de 300 millions de DEM en 1999 parce qu'ils avaient convenu de limiter leurs ventes.⁸
- En 2005, la Commission japonaise (JFTC) a découvert l'existence d'un cartel regroupant une cinquantaine d'entreprises de construction de ponts, dont plusieurs très importantes. La Commission a engagé des poursuites judiciaires contre six d'entre elles, qui désignaient par avance celles qui remporteraient les marchés, et contre deux responsables de la Japan Highway Public Corporation, qui facilitaient le trucage des offres. La JFTC a imposé des pénalités de plus de 12 milliards de yens.⁹
- Au début de l'année 2007, l'Office of Fair Trading (OFT) annonce que, détenteur de preuves nombreuses et indiscutables de l'existence d'un cartel dans le secteur de la construction, il

⁴ OCDE, Droit et politique de la concurrence en Turquie (2005) at 17, disponible sur : www.oecd.org/dataoecd/26/7/34645128.pdf.

⁵ Hugo Priemus, "Dutch Contracting Fraud and Governance Issues," 32 Building Research & Information 306, 309 (2004).

⁶ Voir plus généralement www.nmanet.nl/engels/home/News_and_publications/Theme_files/Construction_case/.

⁷ OCDE, Droit et politique de la concurrence en Allemagne (2002-2003), p. 6, disponible à l'adresse www.oecd.org/dataoecd/22/21/34831942.pdf.

⁸ Bundeskartellamt, "Bundeskartellamt Imposes Fines of Over DM 300 million for Cartel Agreements among Ready-mixed Concrete Firms," Communiqué de presse (13 novembre 1999), disponible à l'adresse www.bundeskartellamt.de/wEnglisch/News/Archiv/ArchivNews1999/1999_11_03.php.

⁹ Kazuhiko Takeshima, Président de la Commission japonaise des échanges équitables, "Japan's Endeavour for Establishing Rigorous Anti-Cartel Enforcement," discours prononcé devant l'International Bar Assn. (New Delhi, 4 novembre 2006); Commission japonaise des échanges équitables, "The JFTC Surcharged 44 Participants in the Bid-rigging for Steel Bridge Construction Projects," communiqué de presse (27 mars 2006).

s'abstiendra de toute indulgence vis-à-vis des parties à de telles ententes.¹⁰ En avril 2008, suite à l'une des enquêtes les plus importantes de son histoire, l'OFT a publié une déclaration d'objection accusant 112 entreprises de construction britanniques de s'être entendues pour manipuler des milliers d'offres. Les projets concernés portaient notamment sur des écoles, hôpitaux publics et logements.¹¹

- Par ailleurs, la Commission coréenne sur le commerce équitable a infligé en 2007 des amendes représentant plusieurs millions de dollars à 19 fabricants de béton asphalté, qui s'étaient entendus sur le prix et le volume des ventes.¹²

Ces différents exemples soulèvent plusieurs questions, qui pourraient être abordées à l'occasion de cette table ronde. Par exemple : pourquoi les cas de collusion sont-ils si fréquents dans le secteur de la construction ? Quelles sont les méthodes adoptées par les organismes chargés de la concurrence pour repérer les cartels et les poursuivre en justice ? Certes, la collusion n'est pas la seule pratique anticoncurrentielle en vigueur dans ce secteur d'activité : d'autres problèmes, comme l'abus de position dominante et les fusions de façade, peuvent également se présenter. Mais il s'agit de cas isolés, si bien que la concurrence se trouve rarement menacée par l'existence d'une entreprise dominante ou par une fusion problématique. Ce sont les ententes qui constituent le problème le plus courant dans le secteur de la construction, et c'est à elles que le présent document s'intéresse au premier chef.¹³

2. Problèmes structurels

2.1 Définition du marché

La définition du marché est essentielle pour l'examen des fusions et les cas de comportement unilatéral. Elle peut aussi avoir son utilité lorsque l'on se trouve en présence d'un cartel, en fournissant des éléments qui permettront de déterminer le niveau des amendes. Il apparaît clairement qu'il existe différents marchés de produits/services dans le secteur du BTP. Le bon sens voudrait que l'on évite de regrouper l'ensemble des activités liées aux bâtiments et structures sous une seule rubrique « bâtiments ». En effet, la construction d'une maison et celle d'un stade de football sont deux processus très différents. La plupart, voire la totalité des entreprises qui construisent des habitations seraient incapables de construire un stade.

¹⁰ Office of Fair Trading, "OFT Closes Door on Cartel Leniency in Construction Bid Rigging Cases in England," communiqué de presse (22 mars 2007), disponible à l'adresse www.offt.gov.uk/news/press/2007/50-07.

¹¹ Office of Fair Trading, "OFT Issues Statement of Objections Against 112 Construction Companies," communiqué de presse (17 avril 2008), disponible à l'adresse www.offt.gov.uk/news/press/2008/52-08.

¹² Commission coréenne pour des échanges équitables, "KFTC Detects a Cartel of 19 Asphalt Concrete Manufacturers in Seoul," 5 KFTC Newsletter 11 (28 décembre 2007), disponible à l'adresse http://ftc.go.kr/data/hwp/20071228_103433.pdf.

¹³ Le présent document évite à dessein de revenir sur les principes relatifs aux ententes et sur les bonnes pratiques à appliquer en la matière, que le Comité et le Groupe de travail 3 ont déjà examinés à plusieurs reprises sous différents angles, y compris très récemment. Voir par exemple : OCDE, *Plea Bargaining/Settlement Of Cartel Cases*, DAF/COMP(2007)38; OCDE, *Prosecuting Cartels Without Direct Evidence of Agreement*, DAF/COMP/GF(2006)7; OCDE, *Cartels: Sanctions Against Individuals*, DAF/COMP(2004)39. Pour les mêmes raisons, nous n'avons pas abordé non plus les méthodes d'organisation des marchés publics qui pourraient empêcher la collusion. Voir OCDE, *Public Procurement, The Role of Competition Authorities in Promoting Competition*, DAF/COMP(2007)34; OCDE, *Competition in Bidding Markets*, DAF/COMP(2006)31. L'existence de ces documents nous permet d'axer notre attention plus spécialement sur l'industrie du bâtiment et sur les répercussions que les caractéristiques propres à ce secteur peuvent avoir quant au respect du droit de la concurrence.

De même, il est peu probable qu'une société spécialisée dans une activité telle que la plomberie puisse, du jour au lendemain, maîtriser la menuiserie.

Autre élément à prendre en considération : certaines entreprises du secteur du BTP ne fournissent aucun produit, mais organisent les activités de construction, dont la réalisation proprement dite est confiée à des sous-traitants. D'autres firmes proposent un ensemble de services, comme la production, l'installation et la maintenance de systèmes de chauffage, de ventilation et de climatisation.

S'agissant de la définition du marché géographique, il va de soi que les coûts de transport représentent un facteur important. Une entreprise souhaitant soumettre une offre pour un projet dont la mise en œuvre s'effectuera loin de son lieu d'implantation devra faire face à des coûts de transport considérables pour la main-d'œuvre, les matériaux et les équipements. Ces coûts seront évidemment bien moindres pour les entreprises installées à proximité du lieu de réalisation du projet. Outre la question des frais de transport, on soulignera que la nature même de certaines activités de la construction imposent une limite géographique ; par exemple, l'asphalte à chaud ne peut être transporté sans dommage au-delà d'une certaine distance (environ 65 km).¹⁴

Faut-il définir de manière très spécifique les marchés de produits du secteur du BTP ? Est-il suffisant de distinguer quelques grandes catégories de marchés – bâtiments commerciaux, habitations et infrastructures – ou vaut-il mieux aller plus loin dans le détail ? Jusqu'où ? Quelles sont les caractéristiques propres au secteur qui doivent être prises en compte pour définir les marchés géographiques ?

2.2 Concentration

On constate un degré de concentration variable des marchés de produits et services dans le secteur de la construction. Dans l'ensemble, les petites entreprises employant moins de 20 personnes sont très largement majoritaires¹⁵, et assurent l'essentiel de la production dans ce domaine d'activité. En revanche, il convient de ne pas sous-estimer le rôle des quelques grandes entreprises du secteur qui, bien que peu nombreuses, affichent un énorme volume de production.¹⁶

Les petites entreprises étant extrêmement nombreuses, on considère fréquemment que le secteur est dispersé. Toutefois, certains pans d'activité sont beaucoup moins fragmentés. Le nombre d'entrepreneurs généraux capables de gérer des projets de très grande envergure est limité, alors que les petits sous-traitants ne manquent pas.¹⁷ Ces deux types d'entreprises, dont la relation est verticale plutôt qu'horizontale,

¹⁴ Ministère des Transports et ministère de la Justice des Etats-Unis, *Suggestions for the Detection and Prevention of Construction Contract Bid Rigging* (1983), disponible à l'adresse www.fhwa.dot.gov/programadmin/contracts/dotjbid.htm.

¹⁵ Voir, par exemple, Niclas Andersson & Fredrik Malmberg, "Competition and Barriers to Entry in the Construction Sector," débats tenus lors du 10^e Symposium on Construction Innovation and Global Competitiveness pp. 461, 466 (2003) (à propos du Danemark et de la Suède); Gerard de Valence, "Market Structure, Barriers to Entry and Competition in Construction Markets," in National University of Singapore, KNOWLEDGE CONSTRUCTION (débat tenu lors du Joint International Symposium of CIB Working Commissions) (22 octobre 2003), 819, 821-22 (à propos de l'Australie); Roberto Pietroforte & Piero Tangerini, "From Boom to Bust: The Case of Italian Construction Firms," 17 *Construction Management and Economics* 419, 421 (1999).

¹⁶ En Australie, par exemple, 0,62 % des entreprises du BTP emploient plus de vingt personnes, mais elles regroupent 13,6 % des emplois du secteur et assurent quasiment 25 % de la production totale de cette branche d'activité. De Valence, note 15 ci-dessus - 821.

¹⁷ Hargita & Toth, note 3 ci-dessus - 209.

remplissent des fonctions différentes. La concurrence entre gros entrepreneurs semble relever davantage de l'oligopole, tandis que la rivalité entre petites entreprises – lesquelles effectuent des travaux de base comme la maçonnerie ou le coulage du béton – se rapproche davantage d'une concurrence idéale.¹⁸

Quels sont les facteurs qui influent sur les niveaux de concentration des différents marchés dans le secteur du BTP ? En d'autres termes, comment expliquer qu'un petit nombre de marchés de la construction ne comptent que quelques entreprises, relativement importantes, alors que la plupart des autres se composent de nombreuses petites entreprises ? Peut-on discerner certaines tendances dans l'évolution de cette concentration ? Si tel est le cas, quelles en sont les conséquences pour l'application de la loi sur la concurrence ?

2.3 Obstacles à l'entrée sur le marché

Les coûts de démarrage d'une petite entreprise de construction sur le marché local sont généralement peu élevés. Cela peut tenir au fait que les achats de matériel sont relativement limités : en règle générale, une petite entreprise loue du matériel en fonction des besoins liés à tel ou tel projet.

D'autres obstacles financiers doivent cependant être affrontés. Les clients dont le projet est important exigent fréquemment que l'entreprise de construction verse une caution, qui lui servira de garantie financière si l'entreprise se révèle incapable de respecter ses obligations, ou peu encline à le faire. Le montant de la caution varie sensiblement d'un pays à l'autre : il pourra être voisin de zéro ou, au contraire, représenter la valeur totale du contrat. L'exigence d'une caution constitue parfois un obstacle redoutable pour une jeune entreprise, surtout si elle est de taille modeste.

Les grandes entreprises de construction semblent mieux à même d'absorber les coûts de transport sur les sociétés plus petites ; par conséquent, elles font généralement en sorte de soumettre des offres dans une zone géographique plus vaste. Elles n'en restent pas moins confrontées à certains obstacles. En particulier, les acheteurs dont les projets nécessitent le recours à une grosse entreprise seront davantage susceptibles d'exiger une liste des travaux similaires menés à bien par cette entreprise.¹⁹ Plus le projet est ambitieux, plus ce facteur prend de l'importance : l'enjeu étant plus important pour le client, celui-ci sera d'autant moins disposé à prendre des risques avec une société inconnue. La place accordée à la réputation peut donc contribuer à expliquer pourquoi le marché s'avère plus concentré pour les projets d'envergure, puisque les entreprises déjà en place sur le marché sont nettement favorisées. Les grandes entreprises de construction, relativement peu nombreuses, nouent des relations étroites avec leurs clients les plus importants, ce qui complique la tâche des entreprises plus modestes ou plus jeunes désireuses d'acquérir l'expérience et la confiance indispensables pour répondre aux exigences des clients en vue d'une présélection. On en déduit que les entreprises jeunes et modestes ont peu de chances de pouvoir soumissionner pour de grands projets, et encore moins d'emporter le marché.

Les obstacles à l'entrée sur le marché sont-ils importants ou non dans le secteur du bâtiment ? La réponse à cette question varie-t-elle d'un marché à l'autre ? Dans l'affirmative, quels sont les facteurs qui expliquent ces différences (par exemple : taille de l'entreprise, domaine de compétence) ? En quoi consistent ces obstacles, lorsqu'ils existent ? Quelles sont les répercussions éventuelles, en matière d'examen des fusions, de la nécessité d'afficher de bons antécédents et des relations satisfaisantes avec les clients dans le cadre de grands projets de construction ?

¹⁸ De Valence, note 15 ci-dessus - 823-24.

¹⁹ Andersson & Malmberg, note 15 ci-dessus - 466.

3. Problèmes liés aux ententes

3.1 *Un secteur prédisposé à la collusion?*

Selon Dorée et al., « il semble que le secteur du bâtiment se caractérise par une culture et un environnement propices à l'apparition et au maintien de malversations et d'entorses aux règles ». ²⁰ Ce secteur d'activité présente-t-il réellement des caractéristiques qui le rendent particulièrement enclin à la formation de cartels ? ²¹ On trouvera ci-après une liste d'éléments propres à ce secteur qui pourraient influencer, dans un sens ou dans l'autre, sur les risques de collusion :

- *Le produit concerné est simple et peu différencié.* La plupart des entreprises de construction sont de type traditionnel, à faible teneur technologique. Elles utilisent, dans l'ensemble, des matériaux plutôt simples pour construire la même chose que leurs concurrents. De nombreux clients s'adressent indifféremment à l'une ou l'autre entreprise, pour autant que les travaux soient conformes aux plans et les prix moins élevés que chez les autres.
- *Transparence des procédures d'appel d'offres.* Le public a souvent accès aux appels d'offres relatifs à des projets de construction, du moins lors des adjudications publiques. Les lois et textes administratifs régissant la passation des marchés exigent en principe une certaine transparence afin de décourager la corruption. Les agents chargés des marchés publics peuvent être tenus de divulguer certaines informations, comme l'identité des soumissionnaires, ainsi que les termes et conditions de chaque offre. ²²
- *Les activités sont très cycliques et les commandes fluctuantes.* Le secteur du bâtiment est soumis à des variations importantes de la demande. Aux Pays-Bas, par exemple, douze pour cent des faillites concernent des entreprises du bâtiment, un chiffre qui « illustre l'assez grande vulnérabilité du secteur, de même que sa sensibilité aux cycles économiques ». ²³ La construction de logements et de bâtiments commerciaux, ainsi que les travaux publics, dépendent de l'évolution de la situation dans d'autres secteurs importants. Par conséquent, les évolutions en accordéon enregistrées dans ces secteurs se répercutent sur les entreprises de BTP.
- *Non-élasticité de la demande.* Bien que sujette à certaines fluctuations, la demande – dès lors qu'elle existe – se montre peu influencée par les prix. Ainsi, une municipalité ayant besoin d'un nouveau système d'égoûts ne réagira probablement pas à une hausse modeste des tarifs.
- *Un grand nombre d'acheteurs.* Une clientèle importante et variée achète des services dans le domaine de la construction. Elle se compose de particuliers, de petites et de grandes entreprises, de municipalités et de pouvoirs publics nationaux. Du fait de cette hétérogénéité, les clients ont plus de difficulté à comparer leurs informations qu'ils n'en auraient s'ils étaient peu nombreux.

²⁰ A. Dorée, E. Holmen & J. Caerteling, "Co-operation and Competition in the Construction Industry of the Netherlands," 19^e conférence annuelle de l'ARCOM (Association of Researchers in Construction Management), vol. 2 (2003), pp. 817-826 - 817.

²¹ Pour une analyse des facteurs qui influent sur les possibilités de collusion, voir OCDE, Public Procurement, The Role of Competition Authorities in Promoting Competition, DAF/COMP(2007)34, Note d'information - 21-23.

²² Id., Résumé - 7.

²³ Hugo Priemus, "Dutch Contracting Fraud and Governance Issues," 32 Building Research & Information 306, 307 (2004).

- *La sous-traitance est répandue.* De nombreux projets de construction ne pourraient être mis en œuvre efficacement sans un minimum de sous-traitance. Les grandes entreprises elles-mêmes doivent recourir à des sociétés plus petites, mais plus spécialisées, pour certains aspects des travaux. Cependant, il arrive parfois que le soumissionnaire retenu sous-traite une partie du projet à une entreprise qui aurait normalement été sa rivale. De fait, les entreprises du secteur considèrent le plus souvent que le dialogue et le partenariat font naturellement partie de leurs activités. Si, dans le cadre d'un projet donné, différentes entreprises peuvent très bien se comporter comme autant de concurrents, elles pourront aussi, à l'occasion d'un autre chantier, s'associer ou conclure un accord adjudicataire/sous-traitant. Cette complexité dans les relations constitue un casse-tête pour les autorités de la concurrence, qui ont parfois du mal à déterminer avec certitude si les réunions ou les communications entre les entreprises répondent à des besoins légitimes liés au projet.²⁴

De quelle façon ces différents facteurs agissent-ils sur la probabilité de formation d'un cartel ? Quelles sont les autres caractéristiques du secteur du bâtiment qui influent sur cette probabilité ? Le secteur a-t-il des spécificités rendant ce type de comportement difficile à déceler et/ou à prouver ? Comment un secteur d'activité aussi fragmenté peut-il se trouver régulièrement confronté à l'existence de cartels ?

3.2 *Les différentes formes de collusion*

Un cartel peut adopter différents types de pratiques anticoncurrentielles, parmi lesquelles :

- entente sur les prix ;
- rotation des offres (les entreprises s'entendent pour remporter les marchés à tour de rôle) ;
- inexistence des offres (les entreprises se mettent d'accord pour que certaines d'entre elles s'abstiennent de soumissionner) ;
- entente illicite sur les prix (certaines entreprises soumettent délibérément des offres dont les prix sont trop élevés pour qu'elles puissent être retenues, ou dont les conditions seront à coup sûr rejetées par le client potentiel) ;
- accord sur des quotas ;
- entente sur un partage du marché (des entreprises rivales se répartissent les clients en fonction du type de projet concerné ou du lieu de réalisation des travaux) ;
- partage des surcharges de soumission (un cartel impose aux membres qui soumissionnent une commission qu'ils ajoutent au prix demandé dans leur offre ; ce montant supplémentaire est ensuite réparti après attribution du marché) ;
- collusion pour la sous-traitance (le soumissionnaire retenu récompense ses partenaires du cartel en leur offrant des contrats en sous-traitance, afin de partager les bénéfices de leur entente illicite) ;

²⁴ Hargita & T. Toth, note 3 ci-dessus - 209.

- échanges d'informations (pas nécessairement illicites).²⁵

Quels types de comportement illégal les cartels du bâtiment adoptent-ils le plus souvent ?

3.3 Repérer les cartels dans le secteur du bâtiment

De nombreux facteurs peuvent s'avérer instructifs lorsqu'un organisme s'efforce de déterminer si un projet ou un marché dans le secteur du bâtiment est concerné par l'existence d'un cartel. En premier lieu, les autorités de la concurrence jugeront vraisemblablement utile de renforcer leur équipe d'enquêteurs en faisant appel à un ingénieur-conseil (spécialisé dans le type de construction en cause) et, si possible, à un auditeur financier. L'équipe ainsi complétée pourra ensuite se pencher sur les aspects suivants :

- des entreprises capables de réaliser les travaux se sont-elles abstenues de présenter une offre ?
- certaines entreprises évitent-elles régulièrement de soumissionner les unes contre les autres ?
- certains adjudicataires sous-treatent-ils régulièrement à des entreprises ayant soumis des offres plus élevées sur les mêmes projets ?
- a-t-on constaté que les marchés attribués dans une zone géographique donnée sont systématiquement remportés par une même entreprise ?
- s'agissant de projets de construction de routes, le ministère des Transports et le ministère de la Justice des Etats-Unis suggèrent de situer sur une carte géographique les contrats suspects, en attribuant à chaque firme une couleur différente ; compte tenu du fait, mentionné précédemment, que l'asphalte à chaud ne peut être transporté sans dommage au-delà d'une certaine distance (environ 65 km), la localisation des contrats remportés par certaines firmes et de leurs usines de production d'asphalte peut faire apparaître un schéma de répartition des marchés sur le territoire.²⁶

Certes, ces facteurs ne suffisent pas à prouver l'existence d'un cartel ; ils peuvent cependant contribuer à déterminer si une enquête plus poussée se justifierait.

Quels sont les autres stratégies et facteurs particulièrement utiles au repérage d'ententes éventuelles dans les marchés du BTP ?

3.4 Gestion des dossiers judiciaires

La nature et l'ampleur des actions en justice engagées par l'Autorité néerlandaise de la concurrence contre des centaines d'entreprises de BTP ont contraint cet organisme à envisager des approches nouvelles

²⁵ Pour une liste plus exhaustive, voir John Connor, *Global Price Fixing* 27 (2^e éd. 2007).

²⁶ Ministère des Transports et ministère de la Justice des Etats-Unis, *Suggestions for the Detection and Prevention of Construction Contract Bid Rigging* (1983), disponible sur www.fhwa.dot.gov/programadmin/contracts/dotjbid.htm. Le même document mentionne plusieurs autres facteurs propres aux projets de construction, qui pourraient être pris en considération pour déterminer l'existence d'un cartel. Pour des suggestions plus générales quant aux éléments et aux comportements suspects à prendre en compte en cas de doute sur l'existence d'une entente dans le cadre d'un projet de marché public, voir OCDE, *Public Procurement, The Role of Competition Authorities in Promoting Competition*, DAF/COMP(2007)34, note d'information - 36-38.

pour les enquêtes et les sanctions relatives à la constitution de cartels.²⁷ Elle a mis en place en 2002 un groupe de travail chargé de ce type d'enquête dans le secteur de la construction. L'Autorité néerlandaise de la concurrence avait pour objectif d'éviter les procédures trop fastidieuses, mais aussi de faire en sorte que les sanctions imposées incitent les entreprises à jouer le jeu de la concurrence avec honnêteté. Elle a donc instauré une procédure de sanction accélérée, accordant une réduction de 15 % des amendes aux entreprises qui acceptaient de ne pas contester les faits, ni la violation des règlements, dans les déclarations d'objection. Quelque 90 % des entreprises concernées ont opté pour cette solution rapide, permettant d'éviter les délais et les coûts considérables qui seraient nécessaires à la tenue d'audiences individuelles pour des centaines de sociétés.

Le Bundeskartellamt, en Allemagne, a également choisi de combiner les mesures de clémence et les travaux d'un groupe de travail spécial pour obtenir des résultats positifs dans les enquêtes visant à repérer les cartels dans le secteur du BTP, et pour rendre plus efficaces les sanctions. Comme indiqué plus haut, il a infligé des amendes très élevées aux six principaux cimentiers allemands, qui avaient participé à un plan de répartition des marchés et de fixation de quotas. Le succès du Bundeskartellamt en la matière a été attribué essentiellement au programme de clémence adopté en 2000 et à la création, en 2002, d'une Unité spécialement chargée de lutter contre les cartels.²⁸

Les accusations portées au début de cette année par l'OFT à l'encontre de 112 entreprises du Royaume-Uni couronnaient quatre années d'efforts. Une enquête menée au départ dans le seul secteur de la toiture s'est rapidement étendue à d'autres domaines de la construction. L'OFT a finalement engagé des poursuites contre 57 entreprises et a reçu 37 demandes de clémence. Toutefois, le problème sous-jacent était encore plus sérieux que les chiffres ne le laissent supposer. En effet, par manque de ressources, l'OFT a dû interrompre l'enquête qui promettait de mettre à jour plus d'ententes illicites qu'il ne pouvait en traiter.²⁹

Comment votre autorité de la concurrence aborde-t-elle la question des poursuites à l'encontre des ententes illicites dans le secteur du bâtiment ? Avez-vous mis au point des procédures particulièrement satisfaisantes dans ce secteur d'activité ? En particulier, comment gérer efficacement les affaires d'entente dans un secteur tel que celui du BTP, où un cartel peut compter des dizaines, voire des centaines, de membres ?

4. Arguments contre la concurrence

Le secteur du BTP a toujours fait preuve d'une certaine réticence à l'idée d'une concurrence ouverte. De fait, ses représentants considèrent que la concurrence est non seulement inappropriée dans ce domaine d'activité, mais qu'elle est aussi préjudiciable à l'intérêt général. Il conviendrait donc, selon eux, de dispenser le BTP d'une partie – ou de la totalité – des dispositions législatives concernant la concurrence.

²⁷ Voir, plus généralement, www.nmanet.nl/engels/home/News_and_publications/Theme_files/Construction_case/.

²⁸ OCDE, Droit et politique de la concurrence en Allemagne 2002-2003, p. 6, disponible sur www.oecd.org/dataoecd/22/21/34831942.pdf ; Bundeskartellamt, "Bundeskartellamt Imposes Fines Totalling 660 Million Euro on Companies in the Cement Sector on Account of Cartel Agreements", Communiqué de presse (14 avril 2003), disponible sur www.bundeskartellamt.de/wEnglisch/News/Archiv/ArchivNews2003/2003_04_14.php.

²⁹ Office of Fair Trading, "OFT Issues Statement of Objections Against 112 Construction Companies", Communiqué de presse (17 avril 2008), disponible sur www.offt.gov.uk/news/press/2008/52-08 ; Office of Fair Trading, Information Note to Local Authorities (17 avril 2008), disponible sur www.offt.gov.uk/shared_offt/business_leaflets/general/Information-Note.pdf.

Les autorités de la concurrence ont la possibilité de réfuter de tels arguments : comment, plus précisément, devraient-elles réagir ?

4.1 L'argument selon lequel la concurrence serait inappropriée

Selon les défenseurs du secteur du bâtiment, il est fréquent que des difficultés apparaissent après la sélection de l'adjudicataire et le démarrage des travaux, alors qu'elles n'avaient même pas été envisagées lors de la conception du projet. Ces problèmes conduisent invariablement à des amendements à la commande portant sur des travaux supplémentaires, qui nécessitent de nouvelles négociations et entraînent une augmentation du prix initial. Par conséquent, le prix ayant permis à l'adjudicataire d'obtenir le marché est souvent inférieur – parfois même très nettement – à celui qui sera réellement facturé au client. Les représentants de l'industrie font dès lors valoir qu'étant donné qu'il est rarement possible de connaître le coût réel d'un projet, y compris après la sélection de l'adjudicataire, le recours à la concurrence est inadapté aux marchés de la construction.

Il est vrai que la construction est un domaine où les difficultés tendent à n'apparaître qu'après le lancement des travaux. Un problème très répandu, par exemple, tient au fait que l'on peut découvrir des matériaux dangereux à l'intérieur ou en-dessous d'un bâtiment existant à l'occasion de travaux de rénovation ou d'agrandissement. Les frais d'enlèvement de ces matériaux peuvent alors modifier sensiblement le budget initial d'un projet. Autre source de complication classique : la méthode habituelle de préparation des fondations ne suffit pas à déceler un sol meuble, ce qui peut entraîner des travaux supplémentaires importants, comme le déplacement de colonnes. Par ailleurs, l'eau de pluie peut endommager une structure encore inachevée. Si, pour une raison ou une autre, les dégâts ne sont que partiellement corrigés, des moisissures peuvent apparaître, entraînant alors inquiétude et méfiance, voire un procès, lequel débouchera peut-être sur la décision de démolir puis de reconstruire, avec les coûts supplémentaires que cela suppose.

En ce qui concerne les marchés attribués par adjudication publique, tout au moins, un autre facteur interagit avec les inévitables modifications dans les commandes de travaux. Plus précisément, les organismes d'achat sont généralement contraints par la loi de sélectionner l'entreprise dont l'offre est la moins disante, sauf à avoir une excellente raison d'en choisir une autre. Certains soumissionnaires présentent alors des offres dont le montant est tellement faible qu'il en devient irréaliste : ils savent, en effet, qu'ils percevront au final des sommes beaucoup plus importantes en raison des modifications qui devront être négociées par la suite. En d'autres termes, les chiffres réels sont davantage le résultat de la négociation menée avec une seule entreprise que de la concurrence entre plusieurs soumissionnaires.

On peut répondre à cet argument que, si la concurrence ne présentait pas d'intérêt, les entreprises de BTP ne s'emploieraient pas si souvent à la saper par le biais des ententes. Quelles autres réponses peut-on envisager ?

4.2 L'argument selon lequel la concurrence aurait un coût exorbitant

Autre argument parfois avancé par les entreprises de BTP : la nature même de leur activité la rend particulièrement vulnérable à une concurrence excessivement coûteuse ; de ce fait, clients et entreprises auraient tout à gagner à davantage de coopération et moins de concurrence : une affirmation que l'on trouve parfois jusque dans des ouvrages universitaires. Dans un article de 2002, M. Dorée et al. considéraient que « le secteur du bâtiment [semblait] très vulnérable à une concurrence ruineuse ». ³⁰ Ils soutiennent en outre que « selon de nouvelles théories relatives à une concurrence dynamique, « un excès de concurrence pourrait empêcher certaines entreprises privées d'investir dans la Recherche et le

³⁰ Dorée et al., note 20 ci-dessus - 818.

développement des technologies, ainsi que dans la mise au point de nouveaux produits ». ³¹ De leur point de vue, en effet, la plupart des pays abandonnent déjà progressivement les approches classiques de la concurrence dans le secteur du BTP, car la concurrence crée un environnement peu propice à l'innovation, au dynamisme et à l'efficacité.

Les critiques à l'encontre d'une concurrence à la fois « ruineuse » et « sauvage » remontent au moins au début du XX^e siècle ; pourtant, elles ne se sont jamais avérées convaincantes. ³² Certains textes universitaires relatifs à l'industrie du BTP ont mis à mal le point de vue de Dorée et al. bien avant que ces derniers publient leur article. Par exemple, Ball et al. avaient rédigé trois ans auparavant un article réfutant l'argument du coût de la concurrence en s'appuyant à la fois sur des éléments théoriques et empiriques. En substance, ils fondent leur raisonnement sur un principe que l'on ne peut qualifier d'inattendu : les marchés axés sur la concurrence fonctionnent bien. Autrement dit, les marchés concurrentiels se rapprochent généralement d'un équilibre efficace lorsque les entreprises enregistrent des bénéfices raisonnables à long terme. Si certaines sociétés, relativement moins efficaces, échouent et se retirent, c'est que leur départ était nécessaire au bon équilibre concurrentiel du marché sur le long terme. ³³

Bien que l'idée selon laquelle une majorité de pays abandonnent le modèle classique de la concurrence puisse paraître quelque peu fantaisiste aux autorités chargées d'appliquer la législation, l'argument relatif à l'innovation, au dynamisme et à l'efficacité mérite un peu d'attention. Dorée et al. ne se montrent pas aussi précis qu'on aurait pu le souhaiter à l'appui de cette thèse ; leur théorie semble toutefois être la suivante : les obstacles à l'entrée sur le marché dans le secteur de la construction sont si ténus, et la concurrence si vive, que toute innovation paraît difficile, voire impossible, à attribuer. Qu'une entreprise mette au point une nouvelle technique permettant la réalisation d'économies ou une amélioration de la qualité : compte tenu de la transparence des processus de construction, elle sera simplement imitée par ses nombreux rivaux. L'innovation n'étant pas rentable, le secteur se trouve confronté à une impasse à cet égard. On pourrait également souligner, à propos de cet argument, qu'il situe l'industrie du BTP à l'extrémité gauche de la courbe en forme de U inversé illustrant la relation entre concentration du marché et innovation. ³⁴ Leur démonstration vise principalement à faire valoir que les autorités responsables du respect de la réglementation accordent trop d'attention aux questions d'efficacité statique – comme les prix – et se préoccupent insuffisamment de l'efficacité dynamique, dont l'innovation constitue un aspect. Selon eux, une meilleure coopération permettrait aux entreprises de capitaliser plus facilement sur leurs innovations, ce qui profiterait finalement aux clients.

Ces auteurs ont également mis en évidence un autre aspect, lié à ce qui précède : l'entreprise dont l'offre est retenue pour un projet de construction est trop souvent choisie exclusivement en fonction du prix qu'elle propose. La qualité n'est alors plus un facteur de concurrence, l'acheteur supposant simplement (de sa propre initiative ou par obligation) que tous les soumissionnaires présentent des produits de valeur identique. Cet état de fait décourage l'innovation, qui aurait permis d'améliorer la qualité. Il conviendrait par conséquent, pour redonner un peu d'élan à l'innovation – actuellement bien terne dans ce secteur d'activité – que les acheteurs ne sélectionnent pas nécessairement l'entreprise la moins disante pour un projet de construction.

³¹ Id. - 817.

³² F.M. Scherer, *Industral Market Structure and Economic Performance* 212 (2^e éd. 1980); A. Akintoye & M. Skitmore, "The Profitability of UK Construction Contractors," 9 *Construction Management and Economics* 311 (1991).

³³ M. Ball, M. Farshchi, & M. Grilli, "Competition and the Persistence of Profits in the UK Construction Industry," 18 *Construction Management and Economics* 733 (2000).

³⁴ Voir OCDE, *Patents, Competition and Innovation*, DAF/COMP(2007)40, Note d'information p. 46-48.

Dorée et al. ont-ils raison d'affirmer que la sélection systématique du soumissionnaire le moins disant présente des inconvénients ? S'il est vrai que, comme ils l'affirment, la concurrence est trop vive dans l'industrie du BTP – ce qui nuit au dynamisme du secteur – et qu'il serait préférable d'intensifier la coopération, les autorités de la concurrence de différentes parties du monde se sont trompées pendant des années en prenant des mesures à l'encontre de nombreux cartels. Que doivent leur répondre les autorités chargées d'assurer le respect de la concurrence ?

FINLAND

1. Concentration of the market and entry barriers in Finland

When we examine the Finnish construction cluster, we must make a distinction between actual construction of buildings and the construction product industry itself with its many subsectors. There is a difference between the two in simple structural observation: in construction of buildings, there are 6-7 biggish actors not to mention several small and medium-sized companies. When it comes to the construction product industry, there are many subsectors where somebody governs the markets fairly sovereignly or the market is governed by two or three leading firms.

This difference is mainly explained by some fairly obvious reasons: the construction of buildings is labour intensive production conducted in the form of contracts, and each project is always its own individual case with its own challenges, whereas in the construction product industry it is often possible to apply regular industrial logic based on the attainment of industrial economies-of-scale. The major concentration of the construction product industry is influenced not only by the small size of the domestic market but also by techno-economic factors, many national standardisation and approval systems and other national regulation of the field.

1.1 *Construction of buildings*

There are some 130 companies active in the Finnish building construction market, and their combined turnover exceeds two million euros. However, there are only seven companies with a turnover of more than 200 million euros in the market. These are YIT Rakennus, Skanska Talonrakennus, Palmberg, NCC Rakennus, Hartela, SRV Vitoset and Lujatalo. These large companies operate in large building sites, nationally speaking, whereas the smaller local companies manage construction business in a specific restricted area. The six biggest companies form a fifth of the turnover of the markets.

Considering the fairly large number of local companies we may state that the building construction sector is structurally fairly well dispersed compared to many other fields. In Finland, the share of the biggest companies in the market is somewhat more heightened than in some other European countries, but it is still rather small. It should be noted in structural examination that a large amount of capacity was permanently removed from building construction during the 1990s recession, which in the state of the present fierce building boom clearly complicates entry to the field and reinforces the position of the biggest construction companies.

In principle, entry to the actual building construction market is fairly easy. It does not require large capital investments, as it is possible to obtain building materials and machinery by renting or otherwise for each project. The plentiful use of subcontracting typical of the construction field also facilitates entry, although in the state of strong demand bottleneck situations may appear in the availability of certain resources. The most important requirement is the knowhow related to the technical details of building, its cost management and overall project leadership, all of which often have to be attained through extensive practical experience. As a rule, this knowhow can be obtained, and in Finland, there are many small and medium-sized companies active in the Finnish construction sector compared to many other sectors.

However, it is more difficult to gain access to the national building construction markets and genuinely large projects, as large construction companies benefit from some clear economies-of-scale and in part from their own construction material production. Big size allows e.g. large material purchases, where the unit costs decrease substantially. Availability and low costs may be guaranteed by own material production at least as regards some central materials, and hence lower bids in project competitions. Additionally, in the state of economic expansion, there is sometimes lack of building materials, which may be avoided by own production. The requirements on knowhow are also tighter in large projects. But small companies simply lack resources to build the biggest projects. Small and medium-sized companies may obtain easier access to the smaller local markets, such as one-family house building, where they have a major supplementary market role.

All in all, within building construction, many traditional entry barriers such as economies-of-scale, capital requirements or product differentiation would not seem to hold such a large role. The leading actors are particularly pleased to stress that by the use of subcontracting and flexible production methods and by specialisation in the right kind of products, the majority of the traditional entry barriers may be circumvented if these appear. In practice, in the examination of entry barriers in building construction, the main attention is often focused e.g. on the weak availability of the building plots and entry barriers caused by the public regulatory environment, such as building and zoning regulations, regulations on the use of labour and other public rules or regulations. The large amount of public regulation complicates the operations of foreign firms, in particular, although in the Nordic countries, the main features of the regulatory environment are largely similar.

1.2 Construction product industry

Another market entity closely related to the field is the *construction product industry*. Companies manufacturing construction products deliver to the construction companies the necessary raw materials and upgraded products such as concrete, insulation wools, thermoplastic roofing membranes and timber. The construction product industry is a vast market area, which subdivides into several markets according to the purpose of use of the products above all. A main division typically applied is into wood, metal and stone products. The industrially manufactured products end up in the use of the construction companies in various construction projects. Several fields of the construction product industry are highly concentrated and are governed either alone or with one or two competitors by several well-known actors such as Abloy, the manufacturer of locking products, or Tikkurila, manufacturing paints.

Many fields of the construction sector are hence highly concentrated compared to building construction, and, in addition to economic factors, many technical factors may also prevent entry to the field. A typical example of such a setting includes the domestic production of concrete, where both capital requirements and economies-of-scale have a major role. The Finnish concrete market has for years been exemplified by a situation where the only alternative to Finnsementti occupying a dominant position has been foreign import. However, the import of concrete in larger amounts than is presently the case would require investments in storage facilities and shipping capacity, and foreign concrete producers or domestic customers of the concrete industry have expressed no interest in making such investments, at least not alone. In 2007, however, due to the acute lack of concrete, this alternative was also brought up in public.

In many submarkets of the construction product industry, entry barriers are also large due to capital requirements and economies-of-scale. The manufacture of construction products requires expensive production machinery and large factory capacity. In such fields in particular where only individual companies currently operate, the economies-of-scale have pressed the costs so low that it is virtually impossible for a market entrant to compete profitably against the leading actors in the field. In many submarkets, such as paints, construction pipes and insulation, the markets are practically divided between the two leading actors, and the only alternative to these is foreign import.

The share of foreign import is generally remarkably low in many subsectors. This may be partially due to the small size of the Finnish construction industry market like any other domestic market, which does not entice foreign companies to the import of products. The more important reason for the lack of import are different national standards and their approval methods and other technical impediments often caused by public regulation. There are indications that, in certain situations, it is possible to exclude competitors from the market via national standards and other approval methods and hence prevent import competition.

The prevention of imports via different standards and other approval methods is particularly apparent in situations where the standards or other technical specifications are *de facto* standards created by the actors themselves, as these often contain automatically inbuilt aspects of competition strategy. A typical and in many ways classical example of such a case is so-called imbedding standard in the locking business. Embedding refers to the way in which locks, buttons and tags are attached to the finished door. It would obviously not be cost-efficient to make this embedding in a different way each time.

This is why procedures have been agreed in almost all countries which the actors adhere to in this sense. In Finland, too, the door manufacturers make set spaces for the locks and buttons always in the same fashion. What causes problems is that in Finland this so-called embedding is made in a different way than in most Central-European countries. This significantly lessens the interest of European manufacturers to come to the Finnish market, which they find small and uninteresting as it is, governed as it often is by one company.

This exceptional way of embedding is probably no accident. Claims and suspicions have been put to the FCA, according to which this deviant embedding standard has been borne out of the commercial interests of the dominant Finnish locking market player Abloy Oy. In a similar fashion, some other actors have publicly claimed that the national quality standards concerning ribbed bar used in construction were originally devised in such a way that they effectively protect the position of the subsidiary of the leading Finnish operator. Irrespective of whether these suspicions are true, the FCA finds that the reform of the Construction Products Directive and the promotion of supranational standardisation and particularly its national implementation in an efficient way is of utmost importance in the attempt to increase the pressure of supranational competition in the construction product industry.

2. The FCA's case history and case types

As the structural examination described above indicates, the construction products industry is a more problematic field than building construction from a competition law perspective. The FCA's case history supports this view, too: significantly fewer cases have been lodged with the office on building construction than on construction industry products.

During the FCA's early years at the turn of the 1980s and 1990s, the FCA particularly intervened with the attempts of associations of business undertakings in the construction products industry to steer and coordinate the market e.g. through various recommendations. After the provisions on the abuse of dominant position had become effective in 1992, the FCA intervened with the pricing, discount and distribution systems of some leading actors in the construction products industry.

In recent years, the FCA has dealt with at least five major cases involving the construction sector, or more specifically the construction products industry. These include the cartel suspicions in the roofing felt sector and ventilation business and the suspicions on abuse of dominance in the locking, HPAC and concrete sectors particularly as regards discount and pricing systems.

2.1 Abuse of dominance and pricing and discount system cases

For the FCA, the cases in the construction products industry still manifest themselves as so-called pricing and discount system cases. There are attempts to steer the actors in the value chain into a direction which is commercially and economically profitable for actors having market power but unprofitable for customers and for effective markets. In practice, the FCA has found that such efforts may have many manifestations.

It is a common point of departure in the construction products industry that the list prices of products are extremely high but considerable discounts are granted on them on a regular basis through complex discount systems. It is fairly common that manufacturers selling their products directly from the factory or wholesalers grant contractors discounts of several dozens of per cents – even 60 per cent in some cases. In practice, these discounts do not commonly transfer to end customers. It has become a sort of law of the land that a considerable amount of the margin of some contractors at least results from these discounts.

For the end customers, problems are caused if they cannot estimate the genuine price of labour and the materials used. Another problem is that the contractors in this system are not interested in buying products at a lower asking price but without the discount from another manufacturer. In effect, this is an attempt to tie part of the market to a traditional leading actor so as that the entry of providers of competing products is significantly complicated. This leads to weakened price competition and a more limited supply, so that, in the long run, the leading actors are compensated for the discounts granted.

It has become a new challenge in recent years that the companies which have been found to occupy or allege they occupy a dominant position have learnt to avoid traditionally prohibited discounts and to plan even more sophisticated pricing and discount methods which ultimately seek the same end result: maintaining high prices and harming or preventing the entry of competing products. In the DG Competition discussion paper on the application of Article 82 of the Treaty to exclusionary abuses, the European Commission has paid particular attention to discount systems and the assessment of discounts based on their de facto market effects. In practice, this effects-based approach requires both from the construction products industry and other parties a new form of thinking and new conceptual and theoretical tools, the application and development of which are an obvious future challenge for all competition authorities.

The challenges are further reinforced by the fact that the legal state is not quite clear in this respect: on the one hand the Commission has specific intentions to reform the assessment of its pricing and discount systems; on the other, the Court has so far leaned on the traditional approach in the cases it has handled so far. The Advocate General has e.g. in the context of the *British Airways* case (C-95/04 P) remarked that, in the assessment of new cases, the previous policy definitions of the Court still have to be taken into account. In practice, there would not appear to be a great deal of case-law based on the Commission's new type of emphasis.

In the FCA's view, it is apparent in any case that it is very important to pay attention to the exclusionary aspects in the pricing and discount systems of the construction products industry at the same time that attempts are made to open up genuine possibilities for increased supply in the traditionally domestic markets through work on pan-European standards.

2.2 Collusive conduct

As regards horizontal cooperation and more generally, all collusive conduct, the construction cluster has traditionally been considered a field prone to cartels. This may have been partially caused by the bad

general reputation of the field and prior to the competition rules becoming effective, the culture of negotiation and the interactions of the inner circle which commonly prevailed in the industry.

Internationally speaking, the historical roots of the bidding cartel prohibition have been pinned down to the construction sector in some presentations. Historically speaking, a combination of a bidding cartel and a market sharing cartel may be considered classical conduct: in a specific region or specific location some actor participating in a bidding contest has been agreed as the winner beforehand, when in some other place, the agreed winner is another actor. No major cases have come up concerning the Finnish construction companies in this regard, however. Every once in a while such bidding cartel suspicions are brought up concerning the Finnish construction sector, however.

Typically, such bidding cartel suspicions have concerned large public building projects. In 2007, the bidding cartel suspicion in the construction sector which received the most publicity was the music hall project by the city of Helsinki, where only one acceptable bid was received to the original call for bids, and even that was priced considerably higher than maximum limit imposed in the call.

According to the experts heard by the office, the music hall is an extremely challenging project both technically, economically and location-wise, and the construction companies have bad experiences of them. Hence, in a situation where e.g. the building of business premises offering good profits has been extremely active, there is no wish to tie capacity to resorts that are as risky as the music hall. The construction companies have told the FCA of several large projects such as the headquarters of a large insurance company, where several construction companies have left many fiercely competing bids.

The FCA has also observed how the domestic and foreign case-law would seem to be relatively sparse compared to the amount of problem talk – particularly as regards distinct cartels regarding building construction¹. That is not to say with certainty that cartels do not exist. It may also be that the suspicions have not, for one reason or another been brought before the relevant authorities. In addition, it is possible that in this respect, too, the companies have learnt to use more sophisticated tools, e.g. special conditions deviating from the general agreement terms of the field, which are likely to eliminate from the competition those whom it has been agreed should be eliminated.

In Finland, measures of various associations of business undertakings and the oligopoly markets of the construction products industry have been examined from the point of view of the cartel prohibition, but not the leading actors of building construction. In recent times, the best-known of the Finnish construction products industry companies sentenced for cartels are Outokumpu manufacturing pipes and Kone manufacturing elevators, on which the European Commission imposed a considerable amount of fines for their share in a supranational cartel. The experts heard during the FCA's own sector inquiry have found cartels much more likely in the heavily concentrated construction products market than in actual building construction. As mentioned, the FCA's own recent cartel investigations are also related to some subsectors in the construction products industry, such as the roofing felt and ventilation business.

The experts heard during the FCA's sector inquiry have hence been quite reserved about the thesis that actual building construction could nowadays be considered a sector particularly prone to cartels. The experts have particularly remarked that in the state of strong economic growth and building, the interest toward cartel conduct is fairly small. In addition, it has come out in the discussions that not all the traditional indicators of cartel susceptibility would seem to unequivocally and as such apply to actual

¹ The FCA has found two major exceptions to this. After the introduction of the Dutch leniency provision some years ago, dozens of cartels in the sector came out. According to public information, in Great-Britain, too, a cartel case has recently come to light where the OFT suspects almost one hundred companies of the field for participation in forbidden price agreements and sharing of contracts.

building construction – more likely to certain sectors of the construction products industry². The relevant considerations include:

- The actual building construction sector is not very concentrated compared to many other problematic sectors: as stated above, there are at least six or seven leading actors and a large number of small and medium-sized companies, which have an important supplementary market role.
- Although the average flats built by the construction companies, particularly the blocks of flats based on concrete elements, are very similar from a certain perspective, there are very few wholly identical building sites considering their total volume. Each site is its own project from the point of view of implementation, and has to be commenced from the beginning each time, sometimes with different cooperation partners.
- The industrial circumstances have not been particularly stable at least in the growth centres: there have been major changes in the housing finance markets; there have been changes in the structure of demand due to demographical factors; land use contracts have been established and become more common, which has enabled the constant commencing of vast new projects particularly in the capital city region; the share of so-called social housing production supported by the state has practically collapsed to a fraction of what it used to be etc.
- There have been clear changes in the structure of the industry and some other traditional settings as the regionally well-known actors have fused into other construction groups due to financial difficulties and as well-known large-scale Swedish enterprises have entered the market.
- Finally, it is difficult to see what would be a suitable sanction mechanism for the building construction sector, in particular, through which the free-riders of the cartels could be punished in the state of strong economic boom.

2.3 *Transparency of the market and possibilities of indirect market coordination*

Based on the FCA's sector inquiry, it appears that a more worrying trend than naked cartels is the extremely high number of public regulation enabling indirect market coordination combined with some other factors increasing transparency in the field such as the development of methods of production and accounting. Of these, regulation has been discussed elsewhere in this paper.

In addition to the high amount of public regulation, the general transparency of the market in the construction sector is increased by the material and information produced by the many industrial organisations of the field. Related information is also produced and distributed by many independent sources and forums. The increase of general market information cannot automatically be considered a bad thing as such.

In some cases, however, the stiffening of pricing structures or the choices related to product alternatives may become a problem. This may e.g. result from an ever more intensive application of cost accounting or planning software constantly being developed by the industrial organisations and already used by the sector, and the directly related information sources and data-bases.

² The FCA is aware that in some literary sources this issue has been examined in a manner which differs from this viewpoint.

The large construction companies, in particular, have for years devised accurate planning and cost accounting software, methods of project management and related data-bases. In practice, the knowhow related to the use of these methods has moved from one company to another due to personnel changes and acquisitions, and is now used by almost all the major actors in the sector, with relatively slight alterations. In addition, there is a surprising amount of general cost information and other information sources in the construction sector, which have been created to aid planning but which contribute to the harmonization of end results at the same time.

Particularly in the common residential building sites, which from the construction companies' perspective are usually standard sites, the actor-specific differences and error margins are often quite small e.g. in costs, only two or three per cents. Recently, attempts to engage in more extensive development cooperation within the framework of various industrial organisations and development organisations have also transpired.

One assumption in the functionality analysis of the market mechanism is that the long history in the sector and its structural stability together with many cooperation forums and vast amount of information exchange facilitate the forbidden market coordination, for in such a situation all the main operators commonly know each other, their reaction models, the criteria guiding decision-making and tools, and implicitly accept the established positions.

Altogether, during its history the FCA has frequently had to intervene in one way or another with the large amount of information exchange typical of the construction cluster, and the methods and practices increasing the exchange of information and transparency between the companies in the field may still be considered one area requiring constant market scrutiny.

At the same time, it should be borne in mind that not all exchange of information and increase in transparency is harmful. Transparency may be useful to consumers and society, particularly through the new innovations produced by R&D. The subject matter is challenging to say the least, as it leads to the discussion more commonly waged on the interfaces and boundaries of modern innovation policy and modern competition policy, which is too wide a topic to be further opened here.

3. FCA's sector inquiry and main areas of competition advocacy

Based on the sector inquiries made by the FCA it would seem apparent that the biggest problems in the construction sector in Finland are not related to the market conduct of the actors itself but to such features of the institutional environment which enable such forms of market behaviour. Hence, generally speaking, it would appear based on the investigations that the challenges and problems concerning the industry would seem to relate more to competition advocacy than competition control, at least as far as Finland is concerned. In the following, the FCA wishes to draw attention to some advocacy considerations which have come up during the inquiry.

The point of departure in the FCA's investigations of the construction industry was the observation on the rapidly and forcefully increasing prices in the region of Helsinki, in particular, and the reasons thereto. The increase in prices obviously basically results from the more or less chronic disparity between supply and demand. Of the factors affecting strong demand (incl. favourable economic trends, strong income elasticity, increasing amounts of inheritance) many are such that, notwithstanding some technical tax revisions, it is not possible to intervene with them in a free market economy.

Hence, the problems appear to relate to the supply side, above all, the challenges of which originate from the 1990s depression, when a large number of capacity was removed from the industry. All in all, many supply-side factors (e.g. the growth of some global raw material costs or the inflexibility of supply)

are such by nature that they cannot be easily or quickly influenced. Hence, it is highly important that attempts are made to influence the supply-side factors, regarding which this is possible or realistic in the first place, e.g. by means of competition advocacy.

As regards competition advocacy, the FCA has, based on its investigations, paid particular attention to the following: i) the solving of acute problems relating to land use; ii) the large amount of public regulation and some related problems and iii) the potential problems in supranational standardisation increasing competition in the construction products industry and the challenges involved in its implementation. Additionally, summarising the national discussion, the FCA has examined iv) the possibilities of increasing production in one-family house production, in particular, and in social house production which has collapsed for several reasons. In the following, a brief description of the above-mentioned themes.

Finland is one of the most sparsely populated countries in Europe, in which the “lack” of building sites has been deplored for twenty years. Since it cannot be a question of de facto lack of land, the problem must relate to the gaining of the land into construction use, which is related to administrative structures. In the capital city area, in particular, this has resulted in the rapid growth of the prices of the building sites. Underlying the phenomenon is a group of mutually entwined problems, and their detailed review is not possible here. The results are significant, however: if there is a lack of a central input factor to construction in both an absolute and relative sense, increasing competition by other means is very difficult. There is an absolute lack in the sense of there not simply being enough construction land; and relatively, because in the capital city area, in particular, the prices of building sites are so high that only the biggest construction companies are able to effectively operate in these conditions.

Because the problems are caused by several factors, to solve them, many different measures are needed. It is not appropriate to go through all these problems and ways to influence them here, due to special national characteristics. But it may be said that in Finland, the solution for opening up the deadlocked situation would be that zoning, decreed as a municipal monopoly, and land use planning would be opened up for private actors, at least to certain extent. This is a challenging issue, however, which meets with strong opposition both inside the administration and amongst some political decision-makers.

In Finland, the regulation in the construction sector has traditionally been plentiful, and paradoxically, there are features in the industry which would refer to a planned economy: the introduction of new operating models and decisions does not occur on the initiative of the leading market actors, as in many other fields, but on the initiative of the authorities responsible for regulation. This has resulted in public regulations becoming both the minimum level and the target level for the quality of construction!

It is particularly challenging in this regard that the authorities of both the central government and of the municipalities constantly issue regulations in the name of safety, health, environmental considerations and aesthetic values, which almost always raise the construction costs but simultaneously prevent competition. In the gravest cases, e.g. in the municipal planning regulations or in the building code specific suppliers have been named for products. In the less severe cases, the regulations de facto limit the number of alternatives to two or three. In Finland, the State Council has commenced a project, whose aim is to critically assess such regulations.

But at the same time, new proposals are constantly made to increase regulation. The latest such proposal is that all new apartments should be equipped with automatic fire extinction systems to decrease the number of deaths by fire. Furthermore, the public regulation on construction would seem to be significantly on the increase European-wide through another way. The FCA refers to the Commission’s intentions of tightening the regulations on the energy efficiency of the buildings due to the climate change. The FCA is concerned that at least in Finland, this may open the door to another new “macro wave” of regulation in the construction sector.

As is known, underway in the Commission is a major reform of the Construction Products Directive to promote supranational harmonisation and standardisation. In Finland, rather large hopes have been placed on supranational standardisation and on breaking away from national approval procedures, to promote competition in the construction products industry, in particular. This is due to the fact that, according to the FCA's observations, there are many national standards in Finland which more or less prevent import competition. E.g. the embedding standard mentioned above is an example of this.

Supranational standardisation is obviously a major way of trying to break such set-ups. However, the implementation of supranational standardisation in a manner promoting competition may involve several practical problems. For example, in the first phase the new euro-standards still contain a large number of national annexes, at least allegedly paying attention "special national characteristics". Furthermore, the implementation thereof in a truly efficient manner may require bigger changes in the whole national regulatory structure. Officially, it would appear that the regulatory authorities are very unwilling to engage in open discussion on these potential problems or challenges. However, in confidential discussions, certain obvious challenges have been acknowledged.

Of the potential to increase supply, particularly the private one-family house production and the one-family house industry clearly form a *genuine* alternative and counterforce to the market and pricing power of large construction companies and their attempts to adjust quality. To understand the meaning of this, some features of the Finnish housing markets have to be taken into consideration: in Finland, owning a flat or a house has been an extremely common and sought after form of dwelling compared to many other countries, and of these flats, almost one half are detached houses, of which the majority are either built by the owners themselves or commissioned by them. Here, a further challenge, resulting from increased emphasis on energy and environmental considerations, are the political and administrative ambitions to construct large regional building entities, in the context of which land and building rights are, in effect, offered in vast quantities to one or more large construction companies.

The role of social housing production is a more versatile issue but by exploiting new, recently materialised solutions with a more market-oriented approach some possibilities may open up to balance demand and supply. In practice, what underlies these new market-oriented models is the thought of new possibilities offered by enticing international real estate investment capital. For this purpose, Finland will introduce the REIT model already used in many countries, which effectively eliminates the double taxation of real estate investments. Problems are related to the implementation of this model as well due to some administrative ambitions, which threaten to spoil the effective implementation of new solutions.

4. Final remarks

In Finland, the investigations commissioned by the actors in the public administration in particular indicate that the construction sector is one of the industries which is considered problematic economically. It is characterised by a weak development of productivity and has a strong domestic market nature and, partially related to this, weak competition intensity, which improves the companies' possibilities to transfer their own costs directly into the prices.

However, the weak competition intensity in the sector and the construction companies' possibility to transfer costs directly into prices cannot be explained in the traditional way in Finland, i.e. by the considerable concentration of the sector but rather by features of the industry characterising the institutional environment in the sector. These include the vast amount of public regulation and the anomalies related to the functioning of the land market and the obvious lack of efficient land policy. In such conditions, the incentives of the actors to genuine and intensive input competition are insufficient.

But, the investigations conducted also indicate that the construction sector is a multi-problematic field where not all the problems may be seen to be purely competitive. Moreover, as regards competitive problems, it would not seem possible to single out clear individual problems such as subscriber lines in the field of telecoms. Each of the main themes of competition control and advocacy hence unravels into several subthemes which have been dealt with in more detail in the extensive sector inquiry made by the FCA.

As regards the promotion of the functioning of the land market, for instance, the FCA has examined e.g. land use contracts, increased tax on property for unbuilt sites and the possibilities of municipalities for financial incentives as well as some less popular methods. In the context of public regulation and guidance, the FCA has examined the old, new or newish and upcoming regulation from the point of view of expediency, cost effects and market entry.

All in all, examined on the sectoral level, the problems related to the competition in the construction sector and the functioning of the market would seem to be an intricate combination of several sub problems or subareas. As regards public regulation in particular, the inquiry mentions the “problem of small streams”. However, the problem pertains to the examination of the effective markets in the construction sector in a more general sense: the problems are caused by a large amount of individual problems, and none of them seem particularly dramatic when examined individually. This causes obvious problems for competition control and advocacy.

It has not been the objective of the FCA’s sector inquiry to present concrete and normative recommendations for measures. However, in practice, many such recommendations or outlines thereof have come up in the handling of the subject matter. Generally, it may be said that because the problems are caused by several sub problems in the manner suggested above, it is clear that to solve them, a selection of measures and tools having a similar impact are need to solve them – there is no panacea. Moreover, since many of the main problems and challenges at least in Finland are basically caused by the public operating environment and hence fall outside the scope of actual competition control and into the domain of advocacy, the input of several interest groups and a successful influencing of these groups are needed in this work.

FRANCE

Introduction

Le secteur de la construction connaît depuis une décennie un véritable essor en France, à l'image des autres pays de l'Union Européenne. En effet, les quelques 363 936 entreprises de construction ont généré un chiffre d'affaires de près de 225 milliards d'euros en 2006, en progression de 9,8% par rapport à 2005. Ainsi, l'activité soutenue a favorisé les recrutements, le nombre d'actifs salariés ou non salariés travaillant dans ce secteur s'élevant en 2006 à 1,67 million, soit une hausse de 4,37 % par rapport à 2005 (données INSEE). Ce qui n'est d'ailleurs pas sans poser de sérieux problèmes en termes d'embauches, puisque le BTP représente l'une des branches d'activité les plus touchées par la pénurie de main d'œuvre avec l'hôtellerie.

Toutefois, cette croissance est amenée à ralentir face à une conjoncture qui s'annonce assez morose pour les mois, voire les années à venir. Après avoir profité des baisses des taux d'intérêt et de l'allongement de la durée des prêts consentis aux ménages français, couplés à un nombre conséquent de chantiers tant publics (constructions de logements sociaux, d'infrastructures) que privés (locaux tertiaires), les entreprises se heurtent à la crise des *subprimes* qui a conduit les banques à resserrer leurs conditions de crédit. Si ce phénomène a moins touché la France que ses principaux voisins européens, qui ont davantage recouru aux crédits à taux variable, l'impact sur le secteur de la construction sera néanmoins assez tangible. C'est donc sous le signe du ralentissement, mais avec des carnets de commandes bien remplis, que les entreprises de la construction ont abordé cette année 2008.

Le paysage français est marqué par la présence de quatre majors du BTP qui ont émergé et se sont renforcés au gré de fusions (Vinci, Bouygues, Eiffage et SPIE) mais également par un réseau de petites et moyennes entreprises (PME) encore solidement implantées et actives. Les stratégies des groupes français s'articulent actuellement en deux mouvements complémentaires : à la fois un accroissement de la présence à l'international et un renforcement sur les métiers de la concession et des partenariats publics-privés, qui permet de se protéger des fluctuations à venir en termes d'activité.

Le secteur de la construction, et plus précisément celui du BTP, est fortement représenté dans les affaires de pratiques anticoncurrentielles traitées ces dernières années.

Après avoir exposé la situation économique des différents segments de ce secteur, les pratiques anticoncurrentielles sanctionnées en matière de construction seront présentées.

1. Le secteur de la construction en France

1.1 *Présentation du secteur*¹

1.1.1 *Un secteur qui continue à porter la croissance économique française*

Ce secteur se caractérise par une croissance économique forte et une pénurie de main d'œuvre.

¹ Source : Étude XERFI700 de janvier 2008 Note de conjoncture Bâtiment.

Dans l'ensemble le bâtiment se porte bien malgré la crise des *subprimes*, qui pour l'instant semble avoir épargné le bâtiment en France. En 2007, le chiffre d'affaires du secteur a progressé de 7,4% en valeur. Les entreprises du secteur ont relevé leurs tarifs en raison d'une demande importante et de la hausse des coûts de production (métaux, matériaux de construction, énergie et salaires).

Le segment des travaux publics a affiché la croissance la plus forte en 2007 (+9,5% en valeur). La construction de bâtiments non résidentiels présente aussi un bon résultat : +7,4% pour les surfaces construites. Le marché de l'entretien est resté particulièrement dynamique, notamment dans le résidentiel en raison de la TVA à 5,5% et des crédits d'impôts qui ont incité les ménages à faire appel à des entreprises de BTP pour réaliser des travaux d'embellissement ou de rénovation. Le seul fléchissement concerne le logement neuf, en dépit duquel la construction de logements est restée importante (+ de 420 000 unités).

Secteur considéré comme le plus important créateur d'emplois de toute l'industrie française depuis 2005, il apparaît structurellement en manque de bras (environ 50 000 offres d'emplois non pourvues en 2007). Cette contrainte importante de production pour les professionnels du secteur les oblige à allonger les délais de réalisation des chantiers. Autre contrainte, le début de propagation de la crise des *subprimes* dans la sphère réelle, qui ne facilite pas l'accès à la propriété des primo-accédants dans un contexte inflationniste en termes de prix immobiliers. Pour l'année 2008, le chiffre d'affaires du secteur est estimé à 181,5 Mds € en 2008 (soit +3,4% et 7,8% en 2007).

1.1.2 Les principaux segments de la construction en France

La construction compte cinq segments majeurs : le logement neuf, le non résidentiel neuf, l'entretien de logements, l'entretien du non résidentiel et les travaux publics.

La construction de logements

La construction neuve s'est maintenue à un niveau élevé en 2007, avec un chiffre d'affaires en progression de 6,3% en valeur d'un montant de 40,8 milliards d'euros. On note cependant un léger ralentissement par rapport à 2006 en raison des premières difficultés des consommateurs dans l'accès à la propriété, difficultés s'expliquant par le niveau élevé du prix des logements neufs, le durcissement des conditions de crédit induit par la remontée des taux d'intérêt notamment. Quant aux professionnels, ils sont confrontés à une augmentation de leurs coûts (cuivre, aluminium, verre plat, ciment, béton, etc.) en partie nourrie par la nouvelle réglementation thermique sur les bâtiments.

Les mises en chantier de logements sont également restées à un niveau élevé. Ainsi, 2007 est la 3^{ème} année consécutive au cours de laquelle ces mises en chantier ont dépassé les 400 000 unités (niveau non atteint depuis le milieu des années 70). Néanmoins, un essoufflement se fait sentir, dû à la difficulté d'accéder à la propriété pour les ménages les plus modestes (doublement du coût d'achat des logements entre 1996 et 2006) et ce malgré l'ajustement effectué par l'allongement de la durée des prêts et la persistance de taux réduits (amorce constatée d'une baisse des prix, consécutive à une diminution des transactions).

S'agissant des mises en chantier de logements collectifs, elles sont restées stables (170 000 unités). Le nombre d'appartements neufs a bondi de 65,2 % entre 2000 et 2007 (c'est la plus forte progression de l'ensemble des segments du bâtiment neuf). Cela s'explique par le plan de cohésion sociale et par la construction de nombreux petits logements collectifs impulsés par le dispositif « De Robien » et la multiplication des opérations de plus de 50 logements.

L'entretien du logement

Un léger recul des transactions de logements anciens a été constaté en 2007. Encore une fois, cela peut s'expliquer indirectement par les difficultés accrues d'accéder à la propriété éprouvées par les ménages.

Le chiffre d'affaires de ce segment reste néanmoins dynamique en 2007 (36,5 milliards d'euros soit 26,8% du chiffre d'affaires total du bâtiment en 2007). Les nombreux crédits d'impôts proposés par les pouvoirs publics participent de la bonne santé de ce marché (notamment pour l'installation d'équipements énergétiquement performants).

Le non résidentiel neuf (immobilier de bureaux neufs)

Le marché de l'immobilier de bureau neuf a continué de progresser en 2007 (+11,4% pour un chiffre d'affaires s'élevant à plus de 33 milliards d'euros) grâce à une activité soutenue dans le tertiaire, à une accélération de l'emploi salarié, au maintien des investissements des entreprises, ainsi qu'à une forte demande de locaux neufs par les investisseurs en raison d'une offre légèrement contrainte en Île-de-France (bureaux et grands locaux de stockage),

L'entretien de bâtiments non résidentiels

La croissance de l'activité de ce segment, illustrée par une progression de 5,9% de son chiffre d'affaires (23,3 milliards d'euros), est une conséquence de la nécessité de moderniser les immeubles, dans le cadre de la problématique économies d'énergie, afin de contenir l'augmentation des charges et l'exécution de travaux de mise aux normes (désamiantage, rénovation des installations électriques...)

Les travaux publics

Ce segment, dont le chiffre d'affaires s'est élevé à 39,3 milliards d'euros en 2007, a été marqué par une augmentation des investissements des collectivités locales sur ce même exercice (+9,5%) en raison d'une progression sensible du prix des travaux, contraignant parfois les collectivités à repousser, voire annuler, certains chantiers. Les collectivités locales ont principalement investi dans les domaines de l'urbanisme (réfection des quartiers), des travaux de voirie et de construction de sites propres pour les transports en commun. A cela s'ajoute l'impact du plan de décentralisation de l'État (transferts de moyens vers les départements, telle que la gestion des routes nationales) qui a contribué à cette progression des dépenses en 2007.

Les commandes privée et publique ont été marquées par un investissement massif des sociétés autoroutières (privatisées depuis 2006) dans la réfection des infrastructures, par la construction de sites propres pour les transports en commun et la rénovation des réseaux d'eau s'agissant des communes.

Segment	Chiffre d'affaires 2007	Taux de croissance du chiffre d'affaires 2006-2007	
	En milliards d'euros	En valeur	En volume
Construction de logements	40,8	+6,3%	+2,2%
Entretien du logement	36,5	+6,4%	+2,5%
Non résidentiel neuf	33,1	+11,4%	+8,3%
Entretien non résidentiel	23,3	+5,9%	+1,5%
Travaux publics	39,3	+9,5%	+5,4%

1.2 *État de la concurrence en matière de construction*

La construction est un secteur très atomisé : les très petites entreprises (TPE : moins de 10 salariés) sont majoritaires dans le secteur du BTP, elles représentaient 91,7% de la structure totale du secteur en 2005, pour seulement 34,3% du chiffre d'affaires des travaux de construction. A l'inverse, les 289 entreprises de plus de 200 salariés (soit 0,1% du total) ont assuré 18,6% du chiffre d'affaires global en 2005.

La concentration se révèle plus importante si on analyse l'actionnariat de ces grandes sociétés. Celles-ci sont en général contrôlées par des majors du BTP : Vinci, Bouygues et Eiffage. Elles peuvent aussi appartenir à d'autres opérateurs moins spécialisés : Cegelec, Spie, Sade...

1.2.1 *Les différents opérateurs du secteur*

Si la filière de la construction est fortement atomisée, trois groupes se démarquent en termes de chiffre d'affaires et du nombre de leurs filiales : Vinci, Bouygues et dans une moindre mesure Eiffage. On note également la présence d'autres acteurs importants, tels Fayat, Spie Batignolles, Soprema, GCC, NGE, Gagneraud.

A côté de ces acteurs généralistes figurent des opérateurs plus spécialisés : en matière d'installation électrique et de réseaux de communication, on note ainsi la présence de Cegelec (conception et maintenance multitechniques) et de Spie (ex Amec Spie) spécialisé dans le génie électrique, mécanique et climatique, l'installation et la maintenance des réseaux de communication.

Viennent ensuite d'autres groupes (français ou étrangers) plus diversifiés et d'importance plus ou moins grande tels que : Suez, au travers de la société Axima, présent dans le génie climatique, les travaux de couverture de bardage, de protection incendie, de gestion et de maintenance multi-technique et dans la construction via la société Ineo (solutions électriques, de systèmes d'information et de communication).

Veolia Environnement, concurrent direct de Suez, avec la société Sade est aussi présent dans la construction (Sade est spécialisée dans les travaux de construction et de réhabilitation des réseaux d'eau et d'assainissement) ; Cofathec (groupe GDF) présent dans les services énergétiques, la maintenance de réseaux de chaud et de froid, le génie climatique... Saipem (groupe ENI) sur l'engineering, la construction et l'installation d'infrastructures dans le secteur pétrolier et Pride international (travaux de construction d'infrastructures pétrolières et gazières).

1.2.2 *Les nouvelles tendances du secteur*

On note un mouvement de plus ample ouverture de l'ensemble des acteurs sur l'étranger et une recherche de diversification des métiers afin de réduire les risques inhérents à l'activité BTP. Cela se traduit par un développement de métiers proches, tels l'installation et la maintenance électrique, l'aménagement intérieur...

Cette diversification, qui concerne tous les opérateurs européens du secteur, peut également s'étendre aux services de concessions (autoroutes, parkings, services aéroportuaires).

Enfin, il est important d'évoquer l'impact sur le secteur de la construction de la généralisation en France via l'ordonnance du 17 juin 2004 du contrat de partenariat public-privé (PPP). Ce dernier permet à l'État et aux collectivités de déléguer au secteur privé la construction, la gestion et l'exploitation d'équipements publics. Depuis longtemps utilisé en Grande-Bretagne où il représente 15% de l'investissement public (Private finance initiative - PFI), le PPP présente plusieurs avantages : c'est un moyen de modernisation de l'État, qui permet à la fois d'accélérer les investissements à usage public et de rationaliser les choix publics en conformité avec la réforme budgétaire engagée par la France. Les premiers contrats ont été signés dès 2005 et fin 2007 quelques 135 projets étaient déjà recensés. Actuellement, les pouvoirs publics souhaiteraient encourager le recours à cet outil en simplifiant les possibilités d'y recourir. Un projet de loi en ce sens est actuellement à l'examen du parlement.

1.2.3 *Les pratiques anticoncurrentielles sanctionnées dans le secteur de la construction*

Les échanges d'information et la répartition des marchés

A l'occasion d'un arrêt rendu le 24 mars 1998, la Cour de Cassation a indiqué que « la tromperie de l'acheteur public érigé en système perturbe le secteur où elle est pratiquée et porte une atteinte grave à l'ordre public économique ». Aussi, comme la ou les preuves formelles font parfois défaut, le Conseil de la concurrence a développé la notion de faisceau d'indices graves, précis et concordants, permettant de confirmer ou non la présence d'une pratique illicite : ce faisceau d'indices est constitué par le rapprochement de diverses pièces recueillies au cours de l'instruction, même si chacune des pièces prise isolément n'a pas un caractère suffisamment probant (décision n°06-D-13 du 6 juin 2006 relative à la reconstruction du stade Armand Cesari à Furiani).

Les principales pratiques anticoncurrentielles décelées dans le secteur de la construction portent essentiellement sur les échanges d'informations entre les concurrents préalablement au dépôt des offres, que ce soit au niveau du contenu du projet d'offre, que du prix envisagé. Il faut préciser « qu'il importe peu que l'échange d'informations auquel a procédé une société n'ait pas été réciproque » (CA de Paris, 15 juin 1999- Solatrag). Parfois, le système mis en place va plus loin et met en place des systèmes de répartition des marchés ou des lots, par zone géographique, par projet, par maître d'œuvre ou encore par nature de travaux. Ce fut par exemple le cas pour une quarantaine de marchés de travaux publics passés dans la région Île-de-France entre 1991 et 1997 (décision n°06-D-07 du 21 mars 2006). Dans cette affaire avait été mis en place un système de compensation prévoyant par exemple le versement de sommes d'argent, ou encore l'octroi de travaux en sous-traitance. Ces répartitions peuvent s'organiser formellement par le biais de réunions « tours de table », ou plus subtilement par échanges verbaux ou téléphoniques, qui ne laissent aucune trace. Dans le cadre de l'affaire des lycées d'Île-de-France, une commission occulte avait été mise en place, afin de faire respecter la règle de partage des marchés entre PME et grands groupes (décision n°07-D-15 du 9 mai 2007). Ces pratiques conduisent les concurrents à déposer des offres de couverture volontairement largement supérieures aux estimations prévues, permettant ainsi au lauréat désigné en interne de surévaluer artificiellement son offre au final moins disante, afin de se ménager une plus-value intéressante, sans risque de perdre le marché. C'est pourquoi, le Conseil de la concurrence estime que le

seul fait de procéder à un échange d'informations avant le dépôt des offres, notamment sur les prix, suffit à caractériser la volonté des entreprises de fausser la concurrence devant s'exercer entre elles. En effet, « le caractère anticoncurrentiel des échanges d'informations résulte avant tout de la diminution de l'incertitude portant sur l'attribution du marché et sur le prix auquel il sera attribué : cette réduction de l'incertitude est sensible dès l'échange d'informations (décision n°05-D-17 du 27 avril 2005 relative aux marchés de travaux de voirie en Côtes d'Or).

Une autre affaire marquante concerne le secteur des travaux routiers en Seine-Maritime (Décision n°05-D-69 du 15 décembre 2005). Ce dossier avait trait à la fourniture d'enrobés bitumineux dans le cadre de réalisations de voiries. Le marché pertinent en la matière est réduit à une aire géographique ne pouvant excéder 40 km pour les produits pondéreux, en raison des coûts de transport et de l'obligation de maintenir une certaine température, d'où la nécessité pour une entreprise de pouvoir accéder facilement à ce type d'équipement.

En l'espèce, plusieurs marchés passés par l'État et le Conseil général de Seine Maritime ont tous été confiés aux mêmes entreprises rassemblées au sein de groupements analogues. En fait, la technique du groupement avait été utilisée uniquement dans le but de répartir les lots et les travaux tout en exerçant un contrôle mutuel et régulier de l'application des quotas fixés de répartition des tonnages d'enrobés. Par ailleurs, plusieurs entreprises de BTP avaient financé des procédures contentieuses menées par des associations de défense de l'environnement dans le but d'empêcher, ou au moins de retarder, l'installation de la centrale d'enrobés d'une société émanant d'un concurrent potentiel, dans le département de la Seine Maritime.

De 1992 à 1998, le surcoût estimé de cette entente continue a été estimé à 24,5 millions d'euros. Dès qu'elle a volé en éclat, les prix ont automatiquement subi une baisse de 30% dès 1999, démontrant bien la présence de prix artificiellement élevés pratiqués jusque-là.

Au final, six entreprises ont été condamnées, avec des sanctions allant de 60 000 € à 21 millions d'euros.

La question particulière des matériaux de construction

En 2006, deux affaires ont été portées devant le Conseil de la concurrence s'agissant des enrobés bitumineux d'une part et du béton prêt à l'emploi d'autre part, mais elles se sont soldées par deux décisions de non-lieu.

Dans la décision n°06-D-02 du 20 février 2006, il a été démontré que les 4 entreprises poursuivies occupaient une position dominante collective sur le marché des enrobés bitumineux dans les Ardennes au travers de leurs trois centrales de fabrication. En revanche, il n'a pas été prouvé qu'elles en avaient abusé. En effet, il avait été avancé que celles-ci pratiquaient des prix artificiellement élevés sans justification objective, alors que des remises étaient accordées aux entreprises associées ou aux filiales opérationnelles. Le Conseil de la concurrence a suivi la jurisprudence de la CJCE (affaires jointes C-68/94 et C-30/95 Kali & Saltz – 31 mars 1998) qui rappelle que pour démontrer l'existence d'une position dominante collective, il faut établir que les entreprises « ont, ensemble, notamment en raison des facteurs de corrélation existant entre elles, le pouvoir d'adopter une même ligne d'action sur le marché et d'agir dans une mesure appréciable indépendamment des autres concurrents, de leur clientèle et, finalement, des consommateurs. ». Dans les faits, la parfaite transparence des marchés, les décisions prises à l'unanimité, la proximité « affective » entre les 4 entreprises créaient un environnement rendant la création d'une nouvelle centrale très délicate. Toutefois, le Conseil n'a pas relevé de disproportion excessive entre d'une part le coût et d'autre part le prix effectivement supporté : les écarts de prix étaient de l'ordre de 25% alors que dans d'autres affaires ayant conduit à des sanctions, ils variaient de 60 à 70%. Enfin, l'effet anticoncurrentiel

avait été estimé limité puisqu'aucune entreprise n'avait au final renoncé à soumissionner en raison des prix pratiqués par les centrales ardennaises. En outre, les marchés publics concernés ne représentaient que 30% des débouchés de ces 3 centrales.

Une autre décision de non lieu a également été rendue dans le secteur du transport de béton prêt à l'emploi (BPE) dans l'Oise (décision n°06-D-17 du 22 juin 2006). La durée de maniabilité du BPE étant limitée à 2 heures, sa demande est largement tributaire de l'activité de construction réalisée dans une zone de 20 à 30 km à la ronde et ne concerne donc que des marchés de proximité. Or, une forte asymétrie dans les relations contractuelles avait été relevée à l'avantage des bétonniers donneurs d'ordre, qui semblaient arrêter unilatéralement les conditions de la rémunération du transport et de la livraison de BPE à leurs clients, face à des transporteurs, souvent de petite taille, qui ne pouvaient qu'y adhérer. Dans cette affaire, le Conseil n'a cependant pas conclu à la présence d'une position dominante, et n'a pas considéré que les entreprises avaient « ensemble le pouvoir d'adopter une même ligne d'action sur le marché et d'agir dans une mesure appréciable indépendamment des autres concurrents, de leur clientèle et finalement, des concurrents » (CJCE – 31 mars 1998 affaire précitée).

La constitution des groupements

Un autre point régulièrement soulevé concerne la constitution des groupements qui n'apparaissent pas toujours justifiés. La formule du groupement n'est évidemment pas illicite, elle peut même avoir des vertus pro-concurrentielles, en augmentant le nombre d'offres déposées. En effet, se grouper peut permettre à une entreprise d'acquérir une compétence lui faisant défaut, lui assurer de meilleures chances de succès, l'aider à répartir la charge de travail afin de gagner en souplesse, ou encore la mettre en situation de réaliser des travaux qu'il lui aurait été difficile de réaliser seule compte tenu de leur importance ou de leur diversité. Aussi, la complémentarité technique entre les membres d'un groupement peut tout autant recouvrir l'addition de spécialités différentes, de procédés techniques exclusifs, de facilités d'approvisionnement en matériaux, ou encore la simple disponibilité de matériels ou de personnels (décision n°05-D-24 du 31 mai 2005 relative à l'aménagement routier dans le département de la Somme).

La pertinence des justifications techniques ou économiques est appréciée au cas par cas, en évaluant leur effet sur l'intensité de la concurrence résiduelle une fois le groupement formé, c'est-à-dire en observant si la constitution de ce ou ces groupements a entraîné une diminution artificielle du nombre de candidats. Ainsi, la particularité des marchés à bons de commande peut justifier le recours aux groupements étant donné l'imprévisibilité liée à l'exécution du marché (en terme de volume, de localisation géographique, de période, ...) (décision n°07-D-11 du 28 mars 2007 relative aux travaux routiers du Conseil général de la Marne, de la ville de Reims et du district de Reims). De même, « la seule circonstance d'avoir signé, en groupement, l'offre de soumission, ne suffit pas à fonder la participation de la société à l'entente » (décision n°05-D-17 précitée). Par ailleurs, la simple prise de contact avec une autre entreprise afin de savoir si elle est ouverte à la constitution d'un groupement ne constitue pas un échange d'informations, même si l'entreprise sollicitée décline la proposition.

Par contre, les échanges d'informations effectués entre entreprises susceptibles de participer à un groupement ne doivent pas porter sur des éléments de l'appel d'offres tant que le groupement n'est pas constitué, puisque les entreprises sont toujours susceptibles de présenter des offres indépendantes (décision n°06-D-25 du 28 juillet 2006, relative à la restauration du patrimoine campanaire de la cathédrale de Rouen).

Ainsi, en France, il est nécessaire de réunir plusieurs indices solides et concordants afin de démontrer un assèchement de la concurrence dû à la constitution de groupements. Comme l'a indiqué le Conseil de la concurrence, « si l'absence de nécessités techniques ou économiques de nature à justifier ces groupements peut faire présumer de leur caractère anticoncurrentiel, elle ne suffit pas à apporter la preuve d'un tel

caractère » (décision n°07-D-01 du 17/01/2007 relative aux marchés de travaux de canalisation dans le département du Morbihan).

Le dommage à l'économie

En dernier lieu, s'agissant du dommage à l'économie, il est désormais établi que « la tromperie de l'acheteur public érigé en système perturbe le secteur où elle est pratiquée et porte une atteinte grave à l'ordre public économique (Cour de Cassation – 24 mars 1998). En effet, le Conseil de la concurrence a précisé que « la présomption de dommage est établie dès que l'entente est établie, il est sanctionnable par son seul objet » (décision n°07-D-29 du 26 septembre 2007 relative aux marchés publics d'installation électrique lancés par l'établissement public du musée et du domaine national de Versailles). Il existe donc une forme d'automaticité entre la pratique anticoncurrentielle à l'occasion d'un marché public et le dommage à l'économie. Les sanctions auxquelles sont condamnées les entreprises subissent une gradation en fonction de la gravité des faits. Par exemple, si l'appel d'offres a dû être déclaré infructueux en raison d'offres dépassant les estimations, le chantier prendra du retard, créant ainsi un préjudice à la collectivité. Ainsi, dans la décision n°07-D-15 du 9 mai 2007 portant sur les marchés d'Île-de-France, le Conseil a souligné que cette entente généralisée a créé un dommage particulièrement grave à l'économie, car les sociétés en cause avaient réalisé des marges bien supérieures à ce qu'elles auraient normalement dû toucher et surtout, ce comportement constituait un mauvais signal donné par les majors aux autres entreprises du secteur. Tant le Conseil de la concurrence que la Cour d'appel de Paris établissent la sanction en fonction de la gravité des faits, du dommage à l'économie, de l'éventuelle récidive,... dans la limite d'un plafond de 10% du chiffre d'affaires mondial de l'entreprise.

2. Conclusion

Le secteur de la construction, et particulièrement du BTP, constitue depuis la fin des années 1990 un domaine en pleine expansion, même si son rythme de progression devrait légèrement marquer le pas en 2008. Ce contexte florissant peut partiellement expliquer l'importance de la mise en œuvre de pratiques anticoncurrentielles dans un domaine déjà traditionnellement marqué par ce type d'agissements : en effet, une telle conjoncture peut favoriser les pratiques d'ententes ou de concertations dans le but d'organiser des répartitions de marchés entre opérateurs concurrents, et par suite, de maintenir les prix à un niveau élevé.

Les conséquences de telles pratiques, qui perturbent l'ordre public économique, peuvent être désastreuses pour les contribuables ainsi que pour les finances publiques locales et nationales. L'action des autorités de la concurrence est l'occasion de rappeler aux opérateurs la finalité des règles de la concurrence et des marchés publics, souvent concernés par la mise en œuvre de pratiques anticoncurrentielles, à savoir :

- d'une part la garantie de l'efficacité du marché au profit du consommateur ;
- d'autre part, l'efficacité de l'utilisation des deniers publics au bénéfice du contribuable et de l'utilisateur des services publics.

L'accent doit donc également être porté sur la responsabilisation des donneurs d'ordre (maîtres d'ouvrage) dans le but d'améliorer et de faciliter la prévention des comportements anticoncurrentiels.

A ce titre, un guide de l'action civile en réparation des pratiques anticoncurrentielles vient d'être édité par la DGCCRF en avril 2008, afin d'inciter l'acheteur public victime d'une telle pratique à agir en réparation devant le juge du contrat, contre son cocontractant bénéficiaire d'un marché attribué à l'issue d'une mise en concurrence viciée. En effet, l'action civile en réparation n'est encore que trop rarement mise en œuvre à ce jour, alors qu'un tel recours peut assurément s'avérer pro concurrentiel et dissuasif.

GERMANY

1. Introduction

The construction trade's¹ situation depends heavily – arguably more than that of other sectors - on business cycle variations and structural developments. In Germany the economic situation of the enterprises and the employment situation in the construction sector have deteriorated since the mid-1990s. The decade between 1995 and 2005 was characterised by a significant reduction in the number of construction enterprises and drastically decreasing employment in the trade. Compared to the situation ten years earlier, in 2005 the number of enterprises with 20 and more employees was down by about 50% and employment was reduced by much more than 50%. Furthermore, in the period 1995-2005 the construction industry was confronted with declining turnover and reduced investment activity. The turnover of the sector in 2005 was slightly over half that of 1995 and investments were just about one third of the level of 1995.

Against this background in the following some competitive issues of the construction sector shall be examined. In particular, the market definition applied by the Bundeskartellamt (II.), supplier structure (III.) and anticompetitive activities in the sector (IV.) shall be outlined. Moreover, the arguments often raised by the construction industry against competition – "cost overruns" and "ruinous competition" – shall be discussed.

2. Market definition

In its decision-making practice regarding the main construction trade, the Bundeskartellamt differentiates between the product markets for building construction and for underground engineering construction.

As regards *underground engineering construction*, a further differentiation is made between road construction and other underground engineering markets (e.g. tunnel construction, underground cable construction, special underground construction). However, an alternative approach would be to combine road and underground construction as these services are offered comprehensively by many (larger) companies. A conclusive market definition, however, has not been made so far as the issue of the creation or strengthening of a dominant position has not presented itself in any of the markets.

In the case of the *building construction* industry the Bundeskartellamt differentiates between building and special building construction markets (e.g. hydraulic engineering, railway track construction). Furthermore, in the Hochtief/Philipp Holzmann proceedings a market for major projects with a contract volume of more than 25 million Euros was defined. Such a volume criterion was considered to be necessary for the definition of technologically and logistically complex construction services involving a

¹ According to the common definition in Germany the term "construction trade" comprises on the one hand "main construction trade" (Site preparation, building construction and underground engineering construction) and on the other hand "finishing construction trade (building installation, other construction work as well as the lease of building machinery with operating personnel). This contribution, however, is focused solely on building construction and underground engineering construction.

high financial risk.² Furthermore, the definition of a separate market for projects and concessions (privately financed infrastructure projects such as e.g. airports or roads) has also been considered. However, here as well, a conclusive market definition has not been made so far as the issue of the creation or strengthening of a dominant position has not presented itself in any of the markets.

3. Supplier structure

Generally it can be stated that new market entries are rare in those areas of the construction industry which require high investments or specific expertise. For example, in narrow technologically specialized markets with small market volumes (e.g. special underground engineering, railway track construction or hydraulic engineering) the number of suppliers tends to be relatively low as expensive machinery is required in these sectors. Due to the technological and economic requirements to be fulfilled by the companies, only a few suppliers are involved in major projects. Where, however, construction projects do not exceed certain dimensions (e.g. in housing and road construction), a large number of suppliers are active in the market.

All in all, according to public statistics, the supplier structure in the main construction industry in Germany presents itself as follows: There are about 74,800 undertakings. About 72,600 of these undertakings employ less than 50 staff members. Only 184 of these undertakings employ more than 200 staff members.³ Although the term “undertaking” (*Betrieb*) used in the public statistics is not identical with the concept of undertakings within the meaning of the German Act against Restraints of Competition (*Gesetz gegen Wettbewerbsbeschränkungen*, GWB), these figures tend to indicate a traditionally medium-sized structure of the German construction industry. In this respect it has to be considered that most of the large construction companies are active globally and thus achieve most of their turnover abroad. For example, the 2007 volume of orders of Hochtief AG for its business activities in Germany amounted to 3.9 billion Euros. Its international business, on the other hand, accounted for 29.89 billion Euros.⁴ It should also be noted that companies often set up syndicates for the realization of major construction projects. The share of external services provided in the main construction sector is thus generally high. Particularly the cost share for external services of companies with more than 1000 employees should be noted. It amounts to 46.6 per cent, i.e. a very substantial part of the services are provided by subcontractors.⁵

4. Competition policy issues in the construction industry

In the construction sector, the activities of the Bundeskartellamt during the last few years have largely been focused on merger control. This applies particularly to the road construction sector in which the market leader STRABAG (market share below 20 per cent) has acquired a large number of companies. However, most mergers of large construction companies tend to fall within the jurisdiction of the European Commission.

² WuW BkartA 2729. The Berlin Court of Appeals did not follow this first product market definition and revoked the Bundeskartellamt’s prohibition decision (WuW/E DE-R 94). As Hochtief AG did not pursue the planned concentration, the issue could not be decided upon by the Federal Court of Justice.

³ Source: Statistisches Bundesamt (Federal Statistical Office), *Produzierendes Gewerbe – Beschäftigte und Umsatz der Betriebe im Baugewerbe 2007*, Fachserie 4 / Reihe 5.1, available at: <https://www-ec.destatis.de/csp/shop/sfg/bpm.html.cms.cBroker.cls?cmspath=struktur,sfgsuchergebnis.csp>

⁴ Cf. information provided at <http://berichte.hochtief.de/gb07/42.jhtml>

⁵ Source: Statistisches Bundesamt (Federal Statistical Office), *Produzierendes Gewerbe – Kostenstruktur der Unternehmen im Baugewerbe 2005*, Fachserie 4 / Reihe 5.3, available at: <https://www-ec.destatis.de/csp/shop/sfg/bpm.html.cms.cBroker.cls?cmspath=struktur,sfgsuchergebnis.csp>

The picture is different in the sector for building materials, which is upstream of the construction sector. In the last few years most of the cartels uncovered by the Bundeskartellamt involved the building materials sector. In particular the 2003 cartel proceedings against companies in the cement sector should be mentioned. These resulted in fines amounting to a total of 702 million Euros being imposed on 12 undertakings and their managers.⁶ The companies had operated anti-competitive market allocation and quota agreements, some of them since the 1970s, and had continued to do so until 2002.⁷ Further important cartel proceedings were those against ready-mixed concrete manufacturers in which on account of quota agreements in several regional markets fines totalling 12.75 million euros were imposed against 62 companies and 3 individuals responsible.⁸ In the construction sector itself, however, there have been no recent indications of any cartel activities.

It should be noted, however, that following the entry into force of the Law on Combating Corruption on 20 August 1997, anticompetitive agreements in bidding procedures, which is probably the most common type of anticompetitive behaviour in the construction industry, were upgraded from an administrative offence to a criminal offence and are thus punishable under Section 298 of the German Criminal Code (StGB). As the prosecution of criminal offences committed by natural persons in Germany lies solely within the responsibility of the public prosecutor, since the introduction of the new criminal offence element, cases of bid-rigging have been prosecuted primarily by the respective public prosecutors. The Bundeskartellamt last imposed sanctions totalling 1.1 million DM against seven companies and persons responsible for collusive tendering in 1999 in fines proceedings which had been pending since the end of 1996. After evaluation of the extensive evidence the suspicion of collusion was confirmed in twelve invitations to tender for the construction of gas, water and district heating pipes, especially in south and south-west Germany between 1993 to 1996, with a contract volume of approx. 13 million DM.

5. "Cost overruns" and "Ruinous Competition"

Representatives of the construction industry tend to invoke "cost overruns" and "ruinous competition" to champion for more cooperation and less competition in their sector. These same arguments are used to defend a so-called "quality control strategy" initiated late last year by the "German Federation of the Construction Industry" (hereafter "Federation"). In the federation's assessment construction companies have had to take on several uncontrollable risks as a result of the poor economic situation in recent years in order to win any orders whatsoever. In particular the risk of obtaining approval from local authorities for the building project or of the construction site being contamination-free has often been passed on to the construction companies by the contracting entities.⁹ In order to stop this, in the federation's view, "ruinous" market behaviour, the formation of a condition cartel is aimed at. On the basis of these industry plans, it would no longer be possible to transfer certain risks in construction procedures by contract to the contractor. By precluding these risks to business the construction industry hopes to concentrate on "quality

⁶ See Bundeskartellamt, Activity Report 2003/2004, Abbreviated Version, p. 33, available at http://www.bundeskartellamt.de/wEnglisch/download/pdf/05_TB_Kurz_e.pdf These decisions were appealed against. The appeal proceedings are still pending.

⁷ See Bundeskartellamt, Activity Report 2003/2004, Abbreviated Version, p. 33, available at http://www.bundeskartellamt.de/wEnglisch/download/pdf/05_TB_Kurz_e.pdf.

⁸ See Bundeskartellamt, Our Activities in 2005 and 2006, p. 45, available at: http://www.bundeskartellamt.de/wEnglisch/download/pdf/05_TB_Kurz_e.pdf Due to ongoing appeal proceedings the fines totalling 2.83 million euros (12 companies, 1 person responsible) are not yet final.

⁹ Baubranche plant Kartell gegen Risiken", Frankfurter Allgemeine Zeitung of 28.12.2007, available at http://www.faz.net/s/Rub0E9EEF84AC1E4A389A8DC6C23161FE44/Doc~E0FD52B963544309EFD53C770F5F~ATpl~Ecommon~Scontent.html?rss_aktuell

competition”.¹⁰ The federation has submitted a draft proposal for the condition cartel to the Bundeskartellamt for its competitive assessment. The assessment is still ongoing.

Under Section 2 (2) ARC (old version) agreements and decisions, whose subject matter was the uniform application of general terms of business, were exempted from the prohibition of cartels, insofar as they did not relate to prices or price elements. This provision was eliminated with the 7th Amendment to the ARC in 2005. Condition cartels and recommendations still remain admissible, however, insofar as they fall under European law, under Art. 81 (3) EC, subject to an examination of the clauses in each individual case. The draft submitted by the federation exceeds the threshold for a recommendation because it obliges the economic operators to apply the basic conditions as far as possible and thus constitutes a restraint of competition. The Bundeskartellamt is currently examining whether the draft fulfils the conditions for eligibility for exemption (achieving efficiency gains, indispensability of achieving these efficiency gains, allowing consumers a fair share of the resulting benefit, no elimination of competition).

¹⁰ Loc.cit.

HUNGARY

Some Suggested Issues and Questions for Consideration in Country Submissions

The competition authority of Hungary (GVH) assessed a number of cases concerning the construction industry, mainly hard core (bid rigging) and merger cases. In hard core cartel procedures the GVH paid less attention to the definition of the market as these agreements fall outside the scope of the *de minimis* rule establishing a 10% market share threshold. In the analysed merger cases the GVH based its primary assessment on the smallest imaginable relevant market, where the parties concentration could have effect, but due to the lack of competition concerns no in depth market analysis was subsequently undertaken. Nevertheless the GVH laid down in this sector cornerstones of market definition.

1. Market definition

In bid rigging cases the basic point is that the relevant product and geographical market is the construction project actually affected by the agreement, as the buyer could not replace the provision of the construction service in question with other products, such as a similar construction in another geographic area. Should however a cartel affect a larger number of projects, e.g. all the construction projects put into tender by the same entity, the definition of the market extends to the whole of these projects. On the other hand the GVH often considered that construction companies, especially the major ones are present on a national level and therefore able to participate on any projects put to tender. The number of undertakings considered to be present on a relevant market was more restricted however in individual cases. Depending on the type of the procurement procedure (restricted or invitation), or the stage of the process (before or after pre-qualification), the circle of undertakings *de facto* present on the market is usually more restricted. The definition of the relevant market is therefore much dependent on the stage of the procedure in which the cartel agreement actually took place, and the scope of the cartel agreement. The more restricted the number of undertakings present on the market is, the greater the effects of a restrictive agreement are.

In merger cases none of the decisions prohibited or imposed conditions on the merger. The identified horizontal or vertical effects were rather weak and none of the cases raised portfolio concerns either. Market analysis were based on the main activities of the parties and as not even the narrowest possible market definition raised concerns the cases were closed at this stage without providing a definitive answer on actual substitutability of the different kinds of construction services. As narrowest possible markets were established: the construction of ferro-concrete structures, roads, bridges, railways, public utilities etc. In all the merger cases the geographical market was defined as national.

2. Market structure and particularities

Depending on the construction work put to tender, there may be differences in the number of firms capable to undertake it. In the case of highway construction 4-5, while in the case of national roads around 20 firms had the know-how and capacity required for the fulfilment of the work. It might therefore be true that on some segments there are fewer, while on others there are more firms, but it is not considered as a particularity of the construction industry.

As indicated above, in the cases investigated there was no need for detailed market analysis and therefore the issue of entry barriers was not assessed. Nevertheless it was perceivable that often the buyer was the one who tried to restrict entry for certain reasons.

Simply because of its structure, the construction sector should not be considered as an unavoidable playing field of anticompetitive practices. In none of the segments has the GVH identified dominant or even an eminently strong position providing for the possibility of abusive practices. The number of small size construction firms is rather high, according to a 1999 decision close to 70 thousand. The number of firms of more than 50 employees in structural construction was 122 while in the segment of civil engineering 140. Though geographical distances reduce the availability or at least the competitiveness of distant firms, still it cannot be said that the market is prone to collusion due to the low number of competitors. Nevertheless a lot of cartel cases were investigated by the GVH in this sector including the most significant infringements ever discovered in Hungary. Cartels in the construction industry related to market sharing and price fixing.

It is not clear why are there so many cartels in the sector but certain specific features of the market that might facilitate collusion can be identified. The cartels investigated related in all cases to public procurement procedures, where the number of participants, due to the size of the project, the restricted scope of invited competitors or the reduction in their number due to pre-qualification procedure resulted in a market structure of restricted oligopoly on which collusion was much easier than on an open market. Market sharing was further facilitated in some cases by the fact, that a number of construction sub-projects were put into tender at the same time and the parties were able to share the works according to their size and preferences. Detection of these practices is rather difficult in lack of direct evidence provided by former employees or gathered from other sources prior to the investigation. As supply does not take the form of the continuous provision of homogeneous or at least products of constant characteristics, but rather the sequence of projects of quite different substantive content, it is hard to identify suspicious changes in price or output upon comparison of different and previous projects used as benchmarks.

Another feature of this sector in Hungary is the existence of good personal relationship among the managers of the competing undertakings. This relationship dates back to the socialist era when the normal way of working was to come together in the organisation of the Ministry to distribute the available capacity according to the planned projects. The present COs of firms in this industry were already at a senior managerial level at that time and have an affiliation to such cooperation until these days, despite the prohibition of the law. According to anecdotal evidence from investigators, the existence of amicable relationship was expressed during investigations. This feature not only facilitates collusion, but also makes the leniency policy of the GVH almost completely ineffective.

3. The nature of cases

Though it is quite frequent that competing firms enter into consortia for given projects, such horizontal cooperation agreements were not subjects of competition supervision. Cooperation was only scrutinised when the existence of a secret cartel was suspected and it was considered that the open consortia agreement or subcontracting was actually a form of compensation for engaging into the sharing of the market.

4. Investigation of cases

Cartel investigations were almost always based on information directly related to the existence of the infringement, though only once on leniency application. It happened very often that the investigation of one case revealed evidence on another cartel and so on, constituting a kind of domino-effect.

Having regard to the secret nature of these cases the first investigative measures were always dawn raids conducted on several places at the same time. In many instances these measures proved to be successful, producing pieces of direct evidence on communication between the parties before the submission of the tender (sharing projects, noting competitors' prices, agreeing on reimbursement for abstention on the tender etc.). In other cases no such communication was found, which always resulted in the subsequent termination of the proceedings, i.e. no cartels were established solely upon circumstantial evidence. Beside the results of dawn raids the GVH took into consideration the existence of former illegal cooperation, circumstances that provided for the lack of real willingness to win on a tender, for instance that the offer contained inexplicable features, i.e. the low contractual penalty was not counterbalanced by a shorter deadline though both had great importance in the tender what's more proved to be decisive in the procedure as there were no great differences in prices.

The parties' defence was mainly the consequent denial of any agreement among the participants, even if direct evidence was available on their communication. Sometimes it was raised that it is the normal functioning of the market that parties involve each other as subcontractors but no cost overrun or ruinous competition defences were relied on, as the main strategy was always the denial of the agreement.

JAPAN

1. Structure of the Japanese construction industry and market trends¹

1.1 *Licensing under the Construction Industry Law and Business Evaluation*

According to the Construction Business Act, the “construction business” is the business of completing contracted construction work, irrespective of its name, including principal contracts and subcontracts. The Law defines “a construction business operator” as a company that engages in the construction business under license. Construction business licenses are classified according to the types of construction works conducted by business operators (28 types of construction works including building construction and civil engineering) and licenses classified in accordance with whether or not business offices are established in two or more prefectures (licenses issued by the Minister of Land, Infrastructure, Transport and Tourism or prefectural governors).

For contracting public construction works, business operators are required to undergo a Business Evaluation in addition to acquiring a business license.

1.2 *Number of licensed business operators and number of employed workers*

Licensed construction business operators in Japan numbered 524,273 at the end of FY 2006. Their number decreased by 17,991 from the figure at the end of FY 2005 (with 20,004 business operators entering the market and 37,995 leaving it). The number at the end of FY 2006 was 76,707 less than the peak number at the end of FY 1999.

The number of employed workers in 2006 was approximately 5.59 million. The figure fell by more than one million from the peak in 1997.

1.3 *Scale of licensed business operators*

Licensed business operators included 54 major and quasi-major builders affiliated with the Japan Federation of Construction Contractors and approximately 25,000 locally-based medium and small-to-medium size business operators that belong to the National General Constructors Association of Japan. Approximately 500,000 other licensees are small-to-medium and minor business operators, including approximately 300,000 operators that complete less than one million yen of construction work a year.

1.4 *Business operators that have undergone the business evaluation*

As of FY 2005, 178,278 business operators among all licensees have undergone the business evaluation required for contracting public construction works.

¹ Data sources are (1) reference materials for the first meeting of the special committee on management screening reforms under the Construction Industry Deliberations Committee of the Ministry of Land, Infrastructure, Transport and Tourism (“MLIT”) (March 2007), (2) final report by the Construction Industry Policies Research Group under the Policy Bureau of the MLIT (June 2007), and (3) report titled, “State of the Economic Society Surrounding the Construction Industry,” issued by the Policy Bureau of the MLIT (June 2007).

1.5 Construction investment

Construction investment has accounted for approximately 10% of Japan's GDP in recent years.

Construction investment was expected to total approximately 52 trillion yen in FY 2007. The figure has declined rapidly to around 60% of the peak, approximately 84 trillion yen, in FY 1992. In particular, public investment was expected to total approximately 17 trillion yen in FY 2007, less than half the roughly 35 trillion yen recorded at its peak in FY 1995.

1.6 Structural oversupply

Both the number of licensed business operators and the number of employed workers have been on the decline. However, construction investment has been falling even more sharply than the two business indicators. The construction business is said to remain in a state of structural oversupply.²

1.7 Low productivity

Labor productivity for the construction business has been declining since the early 1990s when the index reached its peak. As of 2002, labor productivity for the construction business stood at a level approximately 70% of labor productivity for all businesses.

The rapid decline in construction investment outpacing the fall in the number of employed workers and extreme low price bidding which was caused by it have been called major macro factors behind the low productivity. Unnecessary overhead expenses, owing to a large number of companies supported by factors such as the industrial characteristic of a multi-layer subcontracting structure, have been cited as one of the micro factors behind the low productivity.³

2. Bid-rigging in public construction works and the Antimonopoly Act⁴

2.1 Bid-rigging and the Antimonopoly Act

Bid-rigging runs counter to a bidding system in which suppliers and prices are decided through fair and free competition among bid participants. It directly restricts competition. Bid-rigging is a quintessential form of cartel and one of the most malicious violations of the Antimonopoly Act ("AMA").

If business operators have participated in bid-rigging, the JFTC orders them to eliminate the bid-rigging and to pay surcharges calculated in accordance with a fixed formula. Moreover, criminal penalties may be imposed on individuals and business operators that have engaged in bid-rigging on the basis of the AMA. Victims (procurement agencies or local residents concerned) may also demand compensation from business operators who have taken part in bid-rigging.

2.2 Bid-rigging in public construction works

Public investment accounts for a large proportion (approximately 33% from the perspective of FY 2007) of construction investment. In principle, competitive bids are sought for ordering public

² The final report by the Construction Industry Policies Research Group under the Policy Bureau of the M LIT (June 2007).

³ Same as footnote 2, above.

⁴ The data source is, unless extra footnotes are provided, "For the Prevention of Bid-rigging" issued by the JFTC Secretariat (September 2007).

construction works. Many bid-rigging activities have taken place in this competitive bid market for public construction works. They have posed problems as violations of the AMA.

Legal actions the JFTC has taken in recent years in response to bid-rigging are presented in the table below. They have accounted for a generally high percentage of the entire number of legal actions. The JFTC took 129 legal actions during the period from FY 2002 to FY 2006. Of this total, 85 addressed bid-rigging and 66 were on bid-rigging in public construction works.

Legal Actions by the JFTC against Bid-rigging in Public Construction Works

Fiscal Year	2002	2003	2004	2005	2006	Total
Legal Actions	37	25	35	19	13	129
Against Bid-rigging	30 (81%)	14 (56%)	22 (63%)	13 (68%)	6 (46%)	85 (66%)
Against Bid-rigging in Public Construction Works	21 (57%)	8 (32%)	19 (54%)	12 (63%)	6 (46%)	66 (51%)

2.3 *Characteristics of bid-rigging in public construction works, etc.*

2.3.1 *Number of business operators involved*

Generally speaking, bid-rigging cases in public construction works involve many business operators. The number of business operators averaged 28 among the 66 legal actions the JFTC took against bid-rigging in public construction works from FY 2002 to FY 2006. The largest number of business operators among these legal actions was 119.

2.3.2 *Geographically relevant markets*

On the other hand, the geographically relevant markets in bid-rigging cases in public construction works are generally local. In bid-rigging cases under the AMA, a particular field of trade (relevant market) is defined for certain goods and services procured by certain procurement parties using certain procurement methods. Procurement agencies concerned were restricted to only one municipality in 28 of the 66 legal actions stated above.

Local public entities may also establish regional requirements (for business operators to locate in the area) as qualifications for business operators to participate in competitive bids. In these cases, geographically relevant markets are defined as more local markets.⁵

2.3.3 *Restricted ability to compete*

In general, bid-rigging in public construction works takes the form of a price cartel, which enables a predetermined supplier to win the contract by (simply) adjusting bid prices among bid participants in advance. This is generally related to the fact that bid price was (overwhelmingly) the most important factor for contracting public construction works.

⁵ The report by the JFTC study group on public procurement and competition policy (November 2003) states that it is necessary to ask, in light of ensuring competition, local public entities to avoid establishing regional requirements in a manner that excessively reduces competition.

2.3.4 *Bid-rigging assisted by procuring sides*

Bid-rigging in public construction works includes such bid-rigging in which the officials of procurement agencies are involved. In these cases, it is possible to take actions against business operators by using the AMA. However, no legal administrative action can be taken against procuring sides. In order to address this problem and prevent this type of bid-rigging, the Act Concerning the Elimination and Prevention of Involvement in Bid-rigging etc. (“Involvement Prevention Act”) was enacted in July 2002 and came into effect in January 2003. The JFTC demanded 4 improvement measures based on the Involvement Prevention Act to procurement agencies from January 2003 to March 2007. These bid-rigging cases include a case in which bid-rigging was assisted for the purpose of ensuring that the retirees of the procurement side be reemployed by the business operators.⁶

2.3.5 *Actual condition of the establishment of compliance in the construction business*

In light of the frequent cases of bid-rigging, including one assisted by procuring sides, and other factors, the JFTC surveyed 1,700 construction business operators through questionnaires about the actual condition of the establishment of compliance, particularly compliance with the AMA. The results of this survey published in May 2007 revealed that even large companies have a small amount of concern about the possibilities of their violations of the AMA, and the execution of internal audits and other measures were inadequate. Summing up the results, the results noted that substantive compliance improvement is an important challenge for the future.

3. Policies to eliminate unjust trade such as bid-rigging

The JFTC is eliminating bid-rigging by strictly enforcing the AMA. In addition, the JFTC is aiming to prevent bid-rigging with actions including the publication of guidelines for business operators and trade associations⁷ and attempts to work together and to cooperate with procurement agencies⁸. This strict and proactive enforcement against bid-rigging has served to maintain and promote fair and free competition in public procurement fields, thereby causing decline in prices. For example, following the initiation of investigations by the JFTC, prices decreased by 18.6% on average in 22 bid-rigging cases (not restricted to bid-rigging cases in public construction works) in which legal actions were taken during the period from 1996 to March 2003.⁹

In order to improve transparency, objectivity and competitiveness in bidding procedures, the Government of Japan promotes to reform the bidding system including expansion of the competitive bidding and comprehensive evaluation method, which determines the successful bidder through overall

⁶ The Involvement Prevention Act was amended in December 2006 to further eliminate bid-rigging orchestrated by procurement sides. The amendment includes the introduction of penal provisions on procurement officers. It came into effect in March 2007.

⁷ “Guidelines Concerning the Activities of Firms and Trade Associations with Regard to Public Bids” issued by the JFTC (1994).

⁸ For example, directors of accounting affairs and other equivalent officers in procurement agencies have been designated as liaison officers with the JFTC since 1993, and meetings among these liaison officers and the JFTC have been held annually. In addition, the JFTC has cooperated with procurement agencies by dispatching lecturers and providing training materials to their workshops for procurement officers. Furthermore, the Act for Promoting Proper Tendering and Contracting for Public Works, which came into effect in April 2001, requires all public procurement agencies, including national and local government entities and governmental corporations, to notify the JFTC if they have found facts reasonably indicating that bid-rigging was committed.

⁹ JFTC “JFTC’s View on the Draft Amendment of the AMA” (May 2004).

evaluation both of price and non-price factor. On the other hand, since there are issues such as extreme low price bidding and placing unfair burden on subcontractors and their labour workers, the Government of Japan also reinforces policy actions to challenge such issues.

4. Recent major bid-rigging cases in public construction works, involving major construction business operators

4.1 *Case against participants in the bid for subway construction works procured by Nagoya City*

4.1.1 Violation

During the period from early to mid December 2005, the 33 business operators that participated in the bid, through communication from an advisor to Corporation O, one of the violators in this case, or other individuals, or through consultation with the above advisor concerning the predetermined winners of the bid for the subway extension works procured by Nagoya City, agreed that the predetermined winners of the bids would become the predetermined winners of the contracts, and that the other bidders would cooperate to ensure that the predetermined winners of the contracts actually won them. Under such agreement, they substantially restrained competition in the field of trade for the subway extension works procured by Nagoya City, contrary to the public interest.

4.1.2 The JFTC's actions

In November 2007, the JFTC issued a cease-and-desist order against the 33 business operators and surcharge payment orders to 14 of the business operators, finding they had violated the AMA. Prior to this action, the JFTC made a criminal accusation against the five business operators and five individuals engaging in the sales at the five business operators to the Public Prosecutor General in February and March 2007, deeming their violation of the AMA a crime.

4.2 *Case against participants in the bid for civil engineering and building construction works procured by the Defense Facilities Administration Agency*

4.2.1 Violation

The officers of the Defense Facilities Administration Agency (“DFAA”) were “allocating” predetermined winners to some of the specific civil engineering and building construction works procured by the DFAA during and after FY 2004, and this allocation was being conveyed by liaison persons on the industry side. The 60 business operators that participated in the bid agreed that the predetermined winners of bids or the joint ventures that these predetermined winners joined as members would become the predetermined winners of the contracts, and that the other bidders would cooperate to ensure that the predetermined winners of the contracts actually won them. Under such agreement, they substantially restrained competition in the field of trade for the specific civil engineering and building construction works procured by the DFAA, contrary to the public interest. The “allocation” decided the predetermined winners of bids, considering the reemployment of persons who had retired from the DFAA and other entities and additional factors, such as the continuity of the work and relativity with previous works for which the business operators won contracts, and their willingness to win contracts.

4.2.2 The JFTC's actions

In June 2007, the JFTC issued a cease-and-desist order against the 56 of the business operators and surcharge payment orders against 51 of them. In addition, the JFTC notified the DFAA that it found the officers at that time had conducted the “involvement in bid-rigging etc.” stipulated in the Involvement Prevention Act.

KOREA

1. Introduction

The construction industry is an important sector that takes a significant share of the national economy. It accounts for 15.4% of the gross domestic product (as of 2006) and 8% of total employment (19.34 million as of June 2007).

However, as entry barriers to construction market have been lowered¹, the number of construction companies has dramatically increased from 4,198 in 1998 to 13,471 in 2006. This change triggered fierce competition among market participants, but on the other hand, it also provided them with incentives to commit cartels and other competition offenses to survive competition.

2. Market Definition in Construction Industry

As there are more than one product market in the construction industry, it is not easy to define product markets appropriately there. For instance, product markets in the construction industry can be classified largely by two standards – construction objects and project issuers.

According to Korean Standard of Industry Classification, the construction industry is divided into “Heavy Construction” and “Building of Complete or Partial Constructions” by construction objects. And Heavy Construction is further divided into “Site Preparation” and “Civil Engineering Construction (roads, bridges, tunnels, waterways, dams)” while Building of Complete or Partial Construction is again divided into “Residential Building Construction” and “Non-Residential Building Construction.”

By project issuers, the construction industry is largely divided into two groups – public issuers such as government organisations, local municipalities, and state-run corporations (Korea National Housing Corporation, Korea Expressway Corporation, Korea Land Corporation) and private issuers that are individuals and private companies.

However, these kinds of general market classification (public sector vs. private sector, or Heavy Construction vs. Building of Complete or Partial Constructions) make the market scope way too broad and vague, thereby becoming meaningless in determining illegality of specific competition cases including cartel activity.

Given the KFTC’s previous enforcement experience, market definition in the construction industry should be more specifically divided considering the scope affected by anticompetitive conducts.

For example, in the bid-rigging case concerning Seoul Subway Line No. 7 extension works issued by Seoul City (6 large construction companies made a secret deal in which one company is to be awarded one section of the extension works respectively.), the relevant market was defined as “Seoul Subway Line No. 7 extension work market,” the object of the bid rigging.

In addition, in the cartel case concerning apartment unit sales in Yongin area (apartment construction companies agreed to set a minimum apartment sales price and sell at similar time), the relevant market was

¹ Requirement for entry to construction market has been changed from an approval base to a registration base.

defined as “apartment sales market in and around Yongin,” in which price comparison and demand substitutability is possible.

Therefore, when it comes to market definition in the construction industry, it would be desirable to have it based on anticompetitive conducts rather than on construction objects or project issuers.

3. Features of Construction Industry

The construction industry has lots of features which set it apart from other general product markets.

3.1 *High-risk Industry*

It takes considerable time to complete a construction project. Therefore, unpredicted situations such as design change and extra work can always take place. In addition, price elasticity of construction products is very low in general. Thus, the construction industry has higher risk than others, requiring risk management on the part of individual companies.

These features are often used as excuses by construction companies for their practice in which they first win bids and later make some adjustments to secure profit. As a result, prices in the construction industry are likely to be determined in many cases by anticompetitive conducts like cartels.

3.2 *Comprehensive industry involving high fixed costs*

As the construction industry is a comprehensive industry, construction companies should bear considerable fixed cost in order to secure and maintain human and material resources with which to construct when needs arise, even if there is no project going on. Therefore, construction companies are eager to participate in “ruinous competition” to win bids so long as they can offset even a small portion of the fixed cost.

3.3 *Necessity of maintaining good construction performance*

In the construction industry, it is important to maintain a certain level of construction performance with consistency in construction objects because this raises chances of winning a bid and usually it is part of tender qualification. Under this circumstance, construction companies are easily tempted to bid prices below an appropriate level at the expense of suffering loss, with a view to securing construction performance for future bids. In addition, companies have a big incentive to engage in bid rigging in order to have opportunity to fatten up their construction performance portfolio.

3.4 *Subcontract-based production*

It is ideal that a construction company should possess all kinds of necessary production resources to meet various needs of project issuers. However, practically, it is nearly impossible or unproductive. Therefore, large construction companies have tried to secure subcontractors fit for each construction stage to enhance efficiency. And this has led to a multi-layer subcontract structure in the construction industry.

Through subcontracting, companies can diversify risks involved in a long-term construction project such as unpredicted changes in price and profit and possibly win construction bids for lower prices by passing the burden on to their subcontractors.

3.5 *Conclusion*

As mentioned earlier, the features of the construction industry are as follows.

- high risks stemming from long-term period of work;
- high fixed cost to maintain human and material resources;
- prone to bid prices below a proper level for consistent construction performance;
- risk diversification possible through subcontracting.

With these features, the construction industry is said to have stronger incentives to engage in bid rigging² compared to other industries so as to diversify risks and prevent “ruinous competition.”

4. Cartel Activity in Construction Industry

4.1 Large share of bid rigging

Cartels of the construction industry take up a high proportion of the total cartel cases. For the latest three years between 2005 and 2007, 29 cases out of 70 cartels imposed with corrective orders or heavier measures were cartels in the construction sector including bid riggings, accounting for 41% of the total.

4.2 High possibility for cartel activity

As construction companies get engaged in bid rigging in an attempt to diversify risks, they have a tendency to feel little guilty and share a strong sense of solidarity among them.

In addition, information exchange among potential bidders prior to bidding is highly likely because usually project issuers give a notification of upcoming bidding in advance.

4.3 Difficulty in detecting and proving cartel activity

It is not easy to detect cartel activity in the construction industry as construction projects are initiated by orders and proceeded by one-off or non-repetitive biddings. In addition, as construction companies usually dispose all bidding-related documents but for formal documents once construction projects are finished, it is practically no easy task to secure evidence to prove cartel activity.

Meanwhile, for project issuers, completing their projects within the set timetable is a first and foremost goal. So they are reluctant to have their projects suspended or biddings become futile due to cartel activity and subsequent investigation by competition authority. Therefore, project issuers have a good reason to remain relatively passive in cartel crackdown efforts although they are best positioned to detect signs of bid rigging through receiving bidding-related documents and contacting bidders directly and indirectly.

4.4 Types of bid rigging

Bid rigging takes a variety of forms according to participants and types of construction works. Largely, bid rigging can be classified into three types - assist model, distribution model, and coalition model.

² In 2007, the KFTC conducted a market study for construction industry to find out what environment is prone to foster cartels and leads to actual cartel activity. The survey found that the sector’s distinctive features are one of the main reasons for active cartel activity in the sector as well as the level of sanctions against bid rigging and regulations facilitating cartels.

Type	Features
Assist Model - based on preemptive rights	<ul style="list-style-type: none"> ◦ In order to make a bidder with preemptive rights to a certain construction project win the bid, other bidders participate in the bid as setoffs. <ul style="list-style-type: none"> - A company is considered to have preemptive rights in case 1) it has completed or is completing a project nearby the site for the new project, 2) the new project is located within the site of its head office and 3) it has made extra effort to win the new project bid in advance. ◦ Preemptive right-based bid rigging takes place through tacit agreements, led by large construction companies.
Distribution Model - based on rotation system	<ul style="list-style-type: none"> ◦ Multiple companies set potential winners for prospective construction project bidding and agree to mutually assist each other in bidding. <ul style="list-style-type: none"> - This type is common in case several projects are put up for bids all at once.
Coalition Model	<ul style="list-style-type: none"> ◦ When the above two types are not applicable, this type is used and takes a form of a consortium.

4.5 *Bid-rigging investigation and prevention*

Due to distinctive features of construction industry, companies tend to engage in bid rigging so as to diversify risks and prevent “ruinous competition.” For early detection and prevention of cartel activity, the Korea Fair Trade Commission has come up with several measures.

First of all, with the aim of enhancing efficiency in cartel detection, the KFTC introduced the *Bid Rigging Indicator Analysis System* in 2006 and is planning to extend its application to cover all project issuers nationwide from 2009.

Second, the KFTC is trying to strengthen cooperative relationship with project issuers to ensure early detection of bid rigging.

To this end, the KFTC is planning to educate officials of project issuers on types and probability of bid rigging and to distribute “Manual for Response and Prevention of Bid Rigging” to project issuers’ officials to encourage them to notify the KFTC of related evidence and information in case they detect signs of bid rigging on the spot.

Third, the KFTC is trying to have construction companies steer clear of temptation of bid rigging by convincing them that there will be serious consequences if they participate in bid rigging.

To this end, the KFTC is not just imposing surcharges or corrective orders on bid riggers, but also actively requesting project issuers to limit their tender qualifications³ so as to ban bid riggers from future tendering, in case damage done to project issuers is significant.

³ Under the Enforcement Decree of the Framework Act on the Construction Industry, in case the KFTC requests a project issuer to limit tender qualification for a bid rigging enterprise, the concerned project issuer is required to follow the request.

In addition, the KFTC is encouraging victimised project issuers to bring bid riggers to the court for compensation. To this end, it is providing them with information on damage compensation, related precedent cases and filing procedure.

NETHERLANDS

1. Introduction

The construction sector is an extremely diverse industry composed of contractors, building materials and product manufacturers. The sector is characterised by a large number of small and medium-sized enterprises (SMEs). There is a relatively small number of large companies. Output of the sector in the Netherlands in the past few years has been somewhere between 5 and 7 % of GDP, a share comparable to other OECD countries. Construction activity tends to be pro-cyclical, reflecting the fact that supply can only respond with a lag to demand as a result of time-to-build.

Over the years, the construction sector (and related markets such as the property market) have repeatedly been the subject of investigations by law enforcers around the world. The activities in this sector seem to be very sensitive to corruption, fraud and infringements of the competition law. Competition authorities in all OECD countries have encountered and fined cartels in the industry. The purpose of the OECD Roundtable on Competition Issues in the Construction Industry (11-13 June 2008) is to examine the underlying rationale for the occurrence of collusion in this industry and to share possible approaches that can be taken by competition authorities to end this anticompetitive behaviour.

The Netherlands Competition Authority (NMa) has dealt with both nationwide and regional bid-rigging and market-sharing schemes in the construction sector. After a whistleblower released papers showing a shadow bookkeeping operation as part of a clearing system by a large number of building firms in a television programme in November 2001, the NMa launched an in depth-investigation into a range of submarkets. These include several of the largest submarkets such as building and housing, road works and civil engineering and the installation sector. It was established that the anti-competitive behaviour of the undertakings amounted to serious infringements of the Dutch Competition Act. This so-called 'construction case' (that consists of 10 -15 cases and some 1500 cases) has been designated the most important cartel case in Dutch history. Besides this 'construction case', the NMa has also discovered cartels in other construction related sectors such as the ready-mix concrete industry.

This contribution will first describe the economic characteristics of the construction industry and discuss why these characteristics make the sector particularly prone to collusion. A closer look at the sector reveals that there is no such thing as *the* construction sector; to establish the relevant market one has to look more closely at submarkets. The contribution then continues to describe the various bid-rigging and market division schemes encountered by the Netherlands Competition Authority in the construction sector and the lessons learned from dealing with these cases.

2. The economic characteristics of the construction industry

A first look at the construction industry in the Netherlands may give the impression that the sector is fairly competitive. There are many firms active in most of the submarkets. Most of the firms in the industry are SMEs. Profitability as a percentage of turnover is relatively low compared with other industries. It is perhaps not surprising given these characteristics that, as van Bergeijk (2008) notes, early studies that tried to detect cartels amongst the sectors of the Dutch economy overlooked the construction industry as a sector that might be prone to anti-competitive behaviour.

However, a more careful look at some of the characteristics of the sector reveals that the actual number of competitors per relevant market might be rather limited in many cases:

- The construction industry consists a wide variety of firms that specialise in a certain field of activity (see Table 1 below). Firms in these submarkets typically do not compete with firms in other submarkets (e.g. a road building firm does not compete with a dredging firm);
- The construction market is a *bidding market*, where the relevant market can be defined by the number of firms that are invited or take part in the bidding. For large, complex projects only a limited number of large, often vertically integrated construction firms can meet the demands set in the procurement procedure (e.g. a certain track record in the specific market). In many cases, smaller firms cannot meet these criteria by themselves. In that case, they can only compete by forming a consortium with other firms (which also limits the number of competitors on the market for a given project) or they can act as subcontractors;
- Procurers can also decide to limit the number of bidders in non-public procurement procedures;
- In many submarkets, firms have to meet certain quality, safety and environmental standards or have that are set by the government. In some cases, this creates a barrier to entry for new firms and also makes it more difficult for foreign firms to enter the national market. High transport costs and limited time-to-use for certain building materials (such as ready-mix concrete) decrease the geographical size of a market and therefore the number of competitors that can supply to this market. This is the result of the fact that production in the construction industry takes place on location.

This list of characteristics indicates that several submarkets in the construction sector are oligopolistic in nature (particularly in the building materials industry, in the case of large or specialised projects and in the case of non-public procurement) . Under certain conditions, extensively described in the Industrial Organisation (IO) literature, firms in an oligopoly have a tendency to collude (either actively or in the form of ‘tacit collusion’). Firms can raise their profits by participating in a cartel. However, cartels are also inherently unstable because individual members can undercut the price set by the cartel and thereby attract more demand and increase his profits. Defecting is less attractive if a market is very transparent in the sense that that cartel members can check easily if they are cheated upon and then punish the defecting firm (for example by starting a price war). Oligopolistic markets that are transparent in this sense tend to produce more stable cartels.

Part of the explanation why the construction industry is prone to cartels can be found in the fact that in most cases the participating firms in a procurement procedure are informed about the bids supplied by each of the firms. Firms also collect information from each other because in many cases they do not only compete for the same works, but they also work as subcontractor for each other or compete for a bid in the same consortium. This makes possible defection from a cartel likely to be detected by other cartel members and besides it makes the communication and sharing of information easy.

The IO literature also shows that collusion is less attractive if the number of (potential)firms increases, or if there are considerable cost differences amongst firms in the market. Again the characteristics of the construction industry do not look good. As mentioned above the characteristics of the industry limits the numbers of firms on each market and can create barriers to entry. Increased vertical integration of the ten largest construction firms also poses threats. There are few examples of foreign firms entering the Dutch market (another possibility for new entrants). Also, the Dutch construction industry is well known for its low level of innovation and almost stagnant labour productivity (which may also be an

outcome of the market environment). In this environment it is hard to create considerable differences in the cost of production of firms.

We can conclude that the construction industry has many conditions favourable to collusion. Besides the economic arguments mentioned above, observers have also pointed to the fact that there might be a *cultural* aspect that might facilitate collusion in the construction market. According to this view, the construction sector is a closed, ‘everybody knows everybody’ place where there is a lot of contact between decision makers particularly on the local and regional level. This culture in the sector further increases the likelihood of collusive activity in the sector.

3. A closer look at the Dutch construction industry

Table 1 provides an overview of the number of firms in the Dutch construction industry narrowly defined as classified by Standard Industry Classification system used by Dutch Statistics. The definition of the Dutch construction industry can be extended to include suppliers of building materials and related industries such as horticultural services/landscaping, property developers and architects. However, the segments make up the core of the construction industry.

Table 1

Subsector	Number of firms (1/1/2007)*
Building sector	
Site preparation (SBI 451)	2505
Building of complete constructions or parts thereof; civil engineering (SBI 452)	42465
- general construction of buildings and civil engineering works	- 29585
- erection of roof covering and frames	- 1960
- erection of highways, roads, airfields and sports facilities	- 3650
- construction of water projects	- 155
- other construction work involving special trades	- 925
Building installation (SBI 453)	11195
Building completion (SBI 454)	28835
Renting of construction or demolition equipment with operator (SBI 455)	910

* Most recent data available.

Even the narrow definition of the construction sector shows the diversity in activities and the technology used, ranging from the demolition and wrecking of buildings (SBI 4511), installation of electrical wirings and fittings (SBI 4531) to painting and glazing (SBI 4544). From the point of view of competition law, these markets cannot be said to provide substitutes and (segments of these markets) therefore have to be considered as separate relevant markets.

4. Nature of infringements encountered by the Netherlands Competition Authority

As mentioned in the introduction, the Netherlands Competition Authority (NMa) has encountered a large number of cases of infringement of the Competition Act related to the construction industry. So far, most of these cases have been violations of art. 81 EC (or the equivalent art. 6 of the Dutch Competition Act) and have involved bid-rigging.

Theoretically, bid-rigging can take several forms, amongst others:

- *Bid suppression*: in this case two or more competitors agree not to submit a bid, or agree to withdraw their bid, so that a particular contractor can win.

- *Complementary bidding or “cover pricing”*: two or more competitors agree who will win the bid. The contractor that supplies the winning bid informs the other contractors about the price that he will bid. The losing contractors supply a phoney, higher bid.
- *Bid rotation*: an agreement between two or more competitors to agree to take turns as the *lowest* bidder.
- *Market division*: there are several ways to collude by market division such as by customers or by geographical area, or by monetary value.

Obviously, these bid-rigging schemes can be used in combination. For example, bid rotation might be combined by bid suppression.

Table 2 below provides an overview of the bid-rigging cases in the Dutch construction industry where the NMa has established that undertakings have infringed Dutch competition law and fined firms accordingly. All these cases are part of the ‘construction case’ mentioned above .

Table 2 shows that many of the bid-rigging schemes discovered by the Netherlands Competition Authority in the Construction industry have the following characteristics:

- Most of the cartels are “*structural*” and collusion is often of the *hard-core* character;
- There is often a large number of participants in the cartel. In many cases the market share of the cartel covered is 80 % or higher;
- There is a varying group of participants per bidding, depending on the project (based upon project requirement and/or the client determined composition of the groups);
- In many cases, the bid-rigging scheme involved bid-rotation under the mutual granting of claims to future turnover.

Table 2
Infringements encountered by the Netherlands
Competition Authority in the construction sector

Sector	Type of infringement	Number of firms involved	Number of firms fined	Total fine in mln. € (25/4/2008)
Building of complete constructions of parts thereof; civil engineering (‘b & u’)	Structural cartel, complementary bidding and compensations	657	611	71,0
Construction of civil engineering constructions, highways and roads etc. (‘gww’)	Structural cartel: division of works and complementary bidding.	374	346	93,8
Building installation	Structural cartel: division of Works and complementary bidding before procurement of installation works.	174	167	41,6
Manufacture of concrete products	“Hard core” cartels in five submarkets, division of the Dutch market (through customers, quota and complementary bidding). In one case also exchange of information about prices and price increases.	50	50	12,8

Sector	Type of infringement	Number of firms involved	Number of firms fined	Total fine in mln. € (25/4/2008)
Horticultural services	Structural cartel, division of works and complementary bidding.	58	56	3,0
Installations of cables and Pipelines	Structural cartel, market division and complementary bidding.	78	72	11,9

5. Lessons learned

The experience of the Netherlands Competition Authority with the cartels in the construction industry provides a number of lessons for competition authorities:

- There is no such thing as *the* construction industry. Invest on a structural basis in knowledge about the different submarkets and the firms that are active in these submarkets.
- Infringements of competition law are typically hard-core violations of art. 81 EC (art. 6 Dutch Competition Act) in nature and are organised around the bids submitted in (public) procurement schemes. An analysis of suspect bid or price patterns and suspicious statements of behaviour might provide the start of an investigation in a submarket. In the “construction case” the Netherlands Competition Authority has aimed to identify structural cartels rather than individual bid-rigging practices.
- An important element in coping with the “construction case” has been the threat by the Dutch government to exclude construction firms that did not report infringements of the competition law to the Netherlands Competition Authority. Partly a result of this, the NMa has successfully applied the leniency instrument in dealing with cartels in the construction sector. In the so-called “construction case” mentioned above, over 400 firms have applied for leniency.
- To deal with the workload of 1400 + cases the Netherlands Competition Authority has designed a fast track procedure. This procedure has elements of direct settlement.
- Cartel investigations and fines may not always be enough to end collusion, if there is also a cultural aspect to this type of behaviour. Self-regulation by the sector (for example by implementing compliance programmes that contain provisions to dismiss managers engaged in competition infringements) and public debate about integrity in the sector might be complementary to achieve the desired change of attitude in the sector. Procurers can also play a role by designing procurement systems in such a way that they minimise the incentives for bid-rigging.

POLAND

1. Introduction

The construction sector encompasses a broad range of activities: designing, constructing, maintaining and demolishing of various building structures. It ranges from the activity of the sole worker on a small project to engineering and construction companies that undertake giant investments.

Construction industry is, to a large extent, susceptible to many external factors, sometimes trivial like the weather or more important ones like business cycles, changes in the interest rates and tax law. The latter affect the individual and the business decisions related to the construction activity. State and local budgets affect road construction and maintenance. Changes in the regulations can result in new constructions or, on the other hand, stop the planned projects.

A revival in the construction industry in Poland has been observed since 2005. In the year 2006 and the first half of 2007 the construction of infrastructure, roads, building installations and preparation of grounds for building works were the fields, which have undergone the most dynamic development. According to the General Office of Building Control 230 thousands building permissions were granted in 2005 (against 162 thousands in 2004).

This process is the result of various factors, like a general boom in the Polish economy, vast foreign investments, lower unemployment rate, transfers from the European Union's funds and a constantly growing demand. As a consequence, in 2007 the construction companies recorded a dynamic development and significant growth in profits.

2. Barriers to entry

The characteristic feature of the construction industry is the fact that in many of its branches the majority of the production is concentrated in few firms, which may possess market power vis-à-vis their clients. For example, in Poland there are only six large producers of mineral wool, four of cell concrete and plaster-cardboards, as well as three producers of reinforcement steel. A similar situation concerns the cement and paint industries.

Significant concentration in those industries goes back to the crisis in the early 00's. Stagnation on the market and low demand for building materials caused bankruptcy of a number of small and medium producers (e.g. of brickyards). Others did not raise the prices and sold the products with minimal profit margins. No new investments were undertaken. The production lines were limited. The strongest market players (most often foreign-owned) took advantage of the crisis and of the poor financial situation of the smaller competitors and started to take them over at relatively low cost, which resulted in a consolidation of the market.

As a consequence, currently the new market entrants face a very strong competition from bigger firms, which hold significant shares in the market.

Furthermore, various administrative constraints (such as: building permissions, special qualifications) or costs of complying with quality regulations may constitute barriers to entry.

3. Enforcement approaches and case management

President of the Office of Competition and Consumer Protection (“OCCP”) has been closely observing the construction sector, as industries with only several producers are undeniably more prone to cartel activity than others. So far, the OCCP’s experiences mainly refer to the building materials, i.e. their production and distribution. The most frequent anti-competitive behaviour encountered in Poland is fixing of resale prices and other trading conditions, e.g. profit margin between the producers and the wholesalers.

As the construction sector is diverse in nature, it is difficult to list all individual markets. The construction works can be roughly divided into four categories: new home building and renovation, heavy construction, institutional and commercial construction and civil engineering. However, from the point of view of a competition authority it is more adequate to examine it from the perspective of:

- building services market;
- construction-materials market (production, distribution).

While conducting the proceedings in the construction sector the Polish authority applies the same tools and procedures as those used in other sectors. Just like in all other cases a market study, including the determination of the structure of the analysed market and the degree of concentration is the first step. In the course of the proceedings various documents, data, files, by-laws of the construction associations are collected. Moreover, press and firms’ websites are monitored.

4. Fixing of resale prices - OCCP’s experiences

One of the first important decisions in the field of construction market was issued in September 2006. The President of the OCCP initiated antitrust proceedings on suspicion of a restrictive agreement between a paint producer Polifarb Cieszyn-Wrocław and the owners of seven DIY hypermarkets: Bricomarche, Castorama, Leroy Merlin, Nomi, Obi, Platforma and Praktiker.

The documentation collected by the Office, i.a. during the dawn raids at the entrepreneurs’ premises, showed that the hypermarkets received a special discount for maintaining the prices of paints and varnishes at the level established by the supplier (or higher). A withdrawal from the agreement resulted in the loss of the discount provided by the seller and also, in some cases, with a refusal to supply.

During the proceedings, the OCCP established that Polifarb was the party which initiated the conclusion of the agreement (in a special letter to the abovementioned entrepreneurs it assured that the introduced solution will be beneficial for both sides) and became its main beneficiary. The aim of those practices was to end a “price war” among the stores and to introduce uniform prices for paints and varnishes produced by the company.

In the course of the proceedings one of the parties to the agreement supplied the President of the OCCP with a number of documents which significantly contributed to the clarification of the matter. It also actively cooperated during the proceedings in that it immediately provided all required information. In view of the above the President of the OCCP decided to reduce the fine imposed on this entrepreneur to PLN 50 000 (0,002% of its annual turnover). Other DIY hypermarkets received fines amounting to 3% of their annual turnover, while Polifarb, which initiated the agreement and was its main beneficiary, suffered a fine equivalent to 5% of its annual turnover.

In April 2007 the President of the OCCP imposed a fine of PLN 10 million on the participants of an illegal agreement in the drain pipes retail distribution market. In the course of the proceeding the authority established that an unlawful agreement was concluded by five producers of drain pipes.

The company ZTS Garmat was the initiator of the agreement. The proceeding proved that in May 2001 the producer of drain pipe systems entered into an illegal agreement with four distributors fixing sale prices of the offered products. In the contracts or the annexes thereto the companies agreed on maximum amount of the discounts for further resale depending on *inter alia* the monthly volume of purchase. The initiator applied sanctions for not complying with the imposed limit. Moreover, the entrepreneur reserved himself the right to monitor the participants' behaviour by means of examining their invoices.

The application of the discount system meant in fact setting the minimal prices. The costs of the unlawful agreement were incurred by all market participants. The sellers were deprived of the ability to shape the prices individually, the consumers of the possibility to choose the cheapest products.

A similar type of agreement was also concluded in the retail distribution of ceramic tiles market. Fines imposed on the participating companies amounted to over 600 thousand zloty.

Finally, the most recent decision concerns again the paints and varnishes sector. An antimonopoly proceeding was initiated in December 2006. The Office checked whether Castorama, the owner of 36 DIY stores located all over Poland, and ICI, a painting products manufacturer, fixed the minimum retail price of fourteen products.

The proceeding showed that at least since 2004 the companies have been fixing not only the final retail prices of ICI's paints and varnishes, but also the constituents of the prices, such as the profit margin. The enterprises were acting in a deliberate and conscious way, gaining unjustified benefits for many years, and have not changed their conduct despite the launch of the antimonopoly proceeding.

The practice had anti-competitive effects first of all within the ICI brands. Artificial inflating of prices by one of the company's clients (Castorama) influenced the prices used by ICI's remaining business partners. Consequently, consumers were forced to pay the prices fixed by the participants of the agreement, which would not be the case in the state of undisturbed competition. Paints and varnishes offered by ICI are one of the most popular ones on the market.

A different case has been investigated since 2006. It is a proceeding against eight cement producers suspected of conspiracy. The reason to initiate the explanatory proceedings were numerous signals indicating the possibility of a mechanism being in place – at least since the late 1990s – which the major Polish cement producers would use to fix prices, partition the market and limit the supplies. In the course of the proceedings an inspection on the premises of the suspected companies was performed in co-operation with the Police. It was the largest operation of this kind in the history of the Polish competition authority.

The OCCP's employees simultaneously entered the offices of 8 cement producers and 3 entrepreneurs suspected of supporting the cartel (e.g. by facilitating exchange of sensitive information), in 13 locations all over Poland. They were accompanied by about 100 police officers, including highly qualified forensic technicians. A substantial amount of evidence was gathered. The proceeding is still on-going.

Restrictive agreements in the cement market are relatively frequent in many European countries. In Poland, already in 1934, as a result of a compulsory dissolution of the cement cartel, the price of this building material dropped from around 70 to approx. 20 zlotys per ton.

In conclusion, it can be said that the majority of the cases investigated by the Polish competition authority concern fixing of resale prices in the sector of production and distribution of building materials. It does not mean that this is the only activity under observation: building firms often have to proceed through public procurement procedure, therefore bid rigging in the construction industry must also emerge as an important target for the OCCP.

The construction boom in Poland caused an increase in the prices of building materials. Some of the firms take advantage of high demand to reduce the deliveries and therefore to lift the prices even more. It has been especially notable with respect to plaster boards or thermal insulation materials. Furthermore, in the market of production and distribution of such products there are only few players, which makes the sector prone to cartel activity.

Many economic analyses show that prices grow faster where the competition among producers is less intensive, while in sectors, where robust competition prevails, prices of products tend to stay in place for a longer time, e.g. in Poland there are almost three thousands window producers and even with a high demand for their product, a rather limited increase of prices, mostly related to rising production costs, was noted. Competition between these entrepreneurs is so fierce that they are not in a position to raise prices without very good reasons.

4.1 Mergers

As for the problematic merger cases, one is especially worth mentioning and concerns a concentration between CRH Deutschland and E. Schwenk- companies operating in the sector of production and sales of concrete.

Having analysed the planned transaction, Polish competition authority issued a conditional clearance. By the end of 2008, CRH Deutschland will have to sell to an independent buyer all the shares in the Res-Bet company it owns. Leaving this firm in the hands of CRH Deutschland would lead to a strong increase in concentration in the Rzeszów region.

5. Cost overruns

Referring to the problem of costs overruns i.e. costs increase, that arise in the course of building works, this most probably will not be resolved by the OCCP if it concerns legal relationships between entrepreneurs. Such disputes are to be settled in civil litigation. However, if the unexpected price increase amounts to an abuse of dominant position (excessive pricing), the competition authority has an obligation to take the necessary measures.

6. Conclusions

So far, the experience of the Polish competition authority does not seem to bear out the view that competition law violations tend to occur in the construction industry especially frequently.

This sector, however, is sure to develop at a rapid pace for years ahead, as the poor state of the infrastructure demands large investments. This need will only be accentuated by the fact that Poland co-hosts the European Football Championship in 2012. It will make construction sector one of the priorities in the OCCP's enforcement activities.

SWEDEN

1. The sector

The Swedish building and construction sector had a total turnover of 360 000 000 000 SEK 2006. The same year some 68 900 companies with 210 000 employees were active.

Most companies in the Swedish construction sector are small and about 85 percent are one man owned companies or have less than four employees. Only 2 percent of the companies have more than 50 employees. Since the 1980s a number of mid size companies have been purchased by the large companies. The situation with a vast number of small companies, a handful very large company and only a few mid size companies influence the competition situation on the market.

In 1990 only 76 companies with about 7 300 employees had foreign owners. In 2005 this figure has increased to 242 companies with 23 500 employees.

The large construction companies are vertically integrated in terms of access to the requisite building materials and the three biggest construction companies have a total share of two thirds of the Swedish market. Barriers to entry are high and smaller companies already operating on the market usually cannot compete on major construction projects. The vertical integration among the large companies does influence the possibility to enter the market. If a construction firm is planning to enter for example the market for producing concrete it will have to compete with the large construction companies and at the same time depend on these companies both as a supplier of input and as a buyer of the produced concrete. It is quite obvious that the new enterer is very vulnerable in such a situation.

Also, growth in companies is inhibited by the fact that the informal sector represents up to 12 percent of the entire building sector (reflecting the high tax on labour). Concentration is also strong in sub-sectors for building materials and prices for construction material have been raising more in Sweden than in most other comparable countries. Further along the supply chain, competition is particularly limited when it comes to larger projects as this segment is dominated by the existing few large companies. This overall lack of competition shows up in prices: among European countries Sweden has one of the highest level of construction costs.

Physical planning also influences the market situation as municipalities decide if a construction project should be permitted according to the planning and building act. The time it takes to get a building permit can be a hindrance. If a construction company has to wait for a permit for a considerable time, it is a hindrance, especially for new companies on local markets. A considerable number of the building and construction projects in Sweden are carried out through public procurement. A growing number of these procurements are being appealed. This also influences the time to start up a project.

The construction industry consists of several separate markets. How narrow the market should be defined is a complicated question and the answer depends on the nature of the case. It is probably not sufficient to define the market in commercial buildings, residential buildings and infrastructure.

2. The housing sector

In the Swedish housing sector rent regulation was introduced during the 1940s as a control framework to avoid unjust rent increases. Gradually it has been reformed and it has moved towards a more soft form of rent regulation. However, rent setting still remains highly regulated. Today's system is a collective bargaining system with a price determining role being played by non-profit municipal housing companies which in effect establishes a ceiling for rents for the whole Swedish rental market.

Due to the cost-based rent determination in public housing, rents in attractive city locations are significantly below a market-clearing level. Rents in the Greater Stockholm region, for example, were about 10 percent higher than the national average in 2005. By contrast, prices of owner-occupied houses in Stockholm County as well as of tenant-owner flats in central parts of Stockholm were more than twice as expensive as the national average suggesting a significant pricing below cost of rental housing.

While construction of owner-occupied houses has increased over the past decade, in line with increasing house prices, the number of newly built rental residences remains muted and below the levels seen in the early 1990s. This holds in particular for the construction activity of private rental residences. Rent regulation is often mentioned as a damping factor for construction as owners cannot charge a market-clearing rent and face the risk that regulations might change over time. In addition, the property owner carries the risk of being asymmetrically hit in case of a recession as demand for housing might fall in particular in newly constructed private rentals (which have a higher cost-based rent than older apartments) rather than spread over the whole housing stock.

Hence attention should be paid as to whether the recent step towards liberalisation of rents for newly constructed residences leads to major construction activity as long as rents are kept down in other parts of the rental sector. One way to circumvent this problem is to allow flexible rent setting for apartments that become vacant when the previous tenant moves out. This would still protect sitting tenants, but would reduce the risk of constructing new rental residences. On the other hand, lock-in effects would almost certainly be aggravated.

One way to capitalise the difference between market and regulated rents is to convert a rental building into tenant-owner residences whose price is not regulated and can be sold on the free market. If a majority of tenants can agree to form an association they can buy the property and convert it. They have to agree on a purchase price with the owner which allows both sides to retain some of the gain. As tenant-owner residences are the fastest growing form of tenure, such incentives clearly seem to work. In particular, conversions into tenant-owner housing are so far mostly a phenomenon of metropolitan areas where the difference between market and regulated rents is large. Since 1990 around 6 percent (90 000 residences) of the stock of rental apartments has been converted into tenant owner residences and 80 percent of those took place in the Stockholm region. Over time, therefore, the share of rental flats has decreased, making the visible shortages even more acute— particularly when taking into account the low rate of construction of rental residences.

The above mentioned distortions call for a gradual phasing out of the rent regulation. However, the system can be improved without a major overhaul. Since the beginning of the 1990s, rents in the town of Malmö have moved to more market-oriented levels – with the agreement of the local tenants' union. The process was carried out gradually, but by now, rents differ by around 25 percent between the most and least attractive areas and the length of queues has been reduced. In Stockholm, by contrast, there are no visible differences between locations.

The lack of competition in the construction sector has been repeatedly pointed out in previous surveys (OECD, 1999, 2004). The high housing subsidies of the past have apparently led to market structures with

informal cartels and little incentive for cost-containment. In a recent survey of 600 managers in the construction sector carried out by the Swedish Competition Authority, 50 percent of respondents stated that cartels exist, with half of them saying they were quite frequent. And a recent study found that 30 percent of construction costs are due to a lack of efficiency. The four largest developers, which account for a large share of the market, do not normally purchase construction services in the market as 75 percent of apartments are built in-house. This results in higher building costs than for smaller developers, who procure projects to a much greater extent.

The Swedish Property Federation has, through its umbrella organisation European Property Federation, filed a complaint to the European Commission regarding the Swedish system with cost-based rent determination in public housing. The organisation is urging the commission to investigate and take action against what the organisation regards as system of unlawful state aid that creates competition distortions in the Swedish housing sector.

3. The asphalt case

Some years ago the Swedish Competition Authority discovered an ongoing cartel in the Swedish asphalt sector. Among other things the companies were fixing prices and dividing markets between them. During the investigation the Authority found out that the cartel had been going on for a very long time (according to some sources since world-war two).

To be able to impose fines a lawsuit was sent to Stockholm District Court.

A ruling came in June 2007. In total the fines amounted to 0.5 billion Swedish Crowns. The case has been appealed and is now pending at the Market Court. The Court proceedings are expected to take place during the winter of 2008/2009.

4. Methods to Detect Cartels in the construction industry

Due to the high concentration and the nature of the construction industry it is important to focus on and by all means find and end collusive behaviour in the sector.

Apart from immunity and reduction of fines tips and complaints can be a way to detecting cartels, especially if those who give the information have inside information. To make sure that interesting information is taken care of in the best manner the Swedish Competition Authority has formed a special task force dedicated to handle tips and complaints.

Many competition authorities use sector studies to find out more about competition problems in concentrated markets. The Swedish Competition Authority has also, during 2005, tried a method of combining a sector study with other proactive measures, for example visiting companies that have entered the market recently and finding out more about their situation. These combined methods gave up to a 25 percent increase in the number of tip offs concerning the construction industry during the year of 2005.

Another way to get more information about competition problems and especially about suspected bid-rigging activities is to have a dialog with procuring officials. To get more explicit information meetings have been held with regional and local public procurers from different parts of Sweden over the last year. The Competition Authority will now start a follow up project and deepen the cooperation with the procurers, focusing on suspected bid-rigging activities.

SWITZERLAND

It is important to note that the price level in the Swiss construction sector is high. According to EUROSTAT data, the comparative price level in the Swiss construction sector was 36.4% higher than the EU15 average in 2006. The high price level in Switzerland can partly be explained by the high level of income and wages in Switzerland. But it is probable that a lack of competition and costly regulations play also an important role.

Thus, regulatory as well as competition issues that are crucial to the construction sector in Switzerland will be presented below. Section I addresses the regulatory framework of the competition sector. In section II, two recent investigations of the Comco concerning the construction business will be discussed. Finally, section III presents several characteristics of this sector that might add to cartelistic behaviour.

1. Regulatory framework of the construction sector

1.1 *Federalism and its impact on regulation and competition*

The regulatory framework in the Swiss construction sector is characterised by federalism: In many areas of the construction sector, the responsibility of regulation is in the hands of cantons and/or municipalities. Notable exceptions are the regulation of construction products and Switzerland's international obligations in public procurement.

A consequence of federalism is that regulations and policies regarding construction permits vary widely between different regions of Switzerland. For example, there exist at least six different methods to measure the height of a building and many municipal prescriptions are not harmonised at all. There are basically two consequences of this system:

- On the one hand, there is a certain degree of **regulatory competition**, which is advantageous for the degree of competition in the sector. There is anecdotal evidence that companies, whose construction projects were being blocked by the authorities in one municipality were approached by other municipalities in the same region assuring that their regulations were simpler and permits would be given more promptly¹. So, the municipalities tend to optimise their level of regulation depending on their preferences for:
 - the protection of public interests that make construction more costly on the one hand;
 - and the risks of losing the investors interested in construction on the other hand.
- On the other hand, the **wide degree of variation of regulations creates significant impediments to competition and increases the costs of regulation**. For example, there is evidence that many architects in Switzerland tend to focus themselves on working in selected regions only, as it is costly to get the knowledge necessary to work in municipalities whose regulations are not well known by the architect yet. There are more than 3000 municipalities in

¹ A recent example is the construction of ALDI's new main distribution centre and Swiss headquarters in eastern Switzerland: The large retail discounter had planned to build this centre in the canton of Thurgau. When it encountered a series of objections and zone planning hurdles, it decided to move the project to a nearby municipality in the canton of St. Gallen (see: <http://www.tagesanzeiger.ch/dyn/news/wirtschaft/864736.html>)

Switzerland and it is impossible to know all their regulations in detail. Regulatory opacity reduces the number of active competitors (architects, construction companies and so on) per region and increases the risk of collusion.

A study published in 1998 and based on data and regulation of 1995 estimated that the cost of non existing standardisation of construction regulation in Switzerland amounted to between 2.3 and 5.7 billion Swiss Francs per year²³.

1.2. Actions taken by Switzerland

Several regulatory efforts were undertaken to increase competition and increase pressure to reduce prices in the construction sector:

- A new **federal law on construction products** that came into force in 2001 and created the basis for a harmonisation of technical regulation of construction products at federal level. In the following, negotiations with the European Union were taken up and the regulation of construction products was included into an MRA with the European Union in March 2008. Thus, trade of construction products between Switzerland and EU member states has been facilitated and competitive pressure has increased.
- In addition to WTO rules, Switzerland and the EU concluded a bilateral agreement on the **opening of public procurement markets** that goes beyond WTO rules and entered into force in June 2002. Thus, an important share of the construction market was opened to more competitive pressure from abroad.
- The **tightening of competition legislation in 2004** - among others, a leniency programme and direct sanctions for hard core cartels were introduced - should be able that more cartels in the construction sector can be pursued.
- The **revision of the federal law on the internal market**, which entered into force in June 2006, should be able to remove regulatory restrictions across cantonal and municipal borders. It remains to be seen how far the law will work to significantly lower the regulatory hurdles between cantons and municipalities. The revised law has not yet been tested in higher courts in the construction sector. The main issue for courts regarding competition will be the question how far cantons and municipalities can go with their regulations legitimated by public interest arguments on the one hand, but restricting competition across borders on the other hand.
- The **bilateral agreement on the free movement of persons** between Switzerland and the EU that entered into force in June 2002 facilitated cross border market entry of EU companies into the Swiss market, notably in the liberal professions such as architectural and engineering services.

2. Recent cases of the Comco in the construction sector

In the following, two recent investigations of the Swiss competition authority (Competition Commission, hereafter Comco) will be presented in more detail. The first case is about a cartel in the road surfacing sector, the second concerns the construction of two railway tunnels.

² Econcept (1998): Kostensenkungen bei Planungs-, Projektierungs- und Baubewilligungsverfahren.

³ It should be noted that since then, a federal law created the basis for harmonisation of the regulation of construction products since then, see below.

2.1 *The road construction sector: the Ticino road surfacing cartel*

In recent years, the Comco has been dealing several times with prohibited cartels (bid rigging) in one specific area of the construction sector: the construction of roads (road surfacing). So far, the Comco has prosecuted two extensive cartels in this area. The most recent case is the Ticino road surfacing cartel which took place in the Italian part of Switzerland and lasted until at least 2004.⁴ It got started by a leniency application. The Comco opened an investigation in April 2005 and issued its decision in November 2007. The case is currently under appeal. It will be presented in more detail below. The second case concerns a road surfacing cartel in the North-East of Switzerland (prosecuted from 1999 to 2000).⁵ Although the Comco could not impose any sanctions for these prohibited activities under the previous Cartel Act, it has investigated both cases in order to raise the awareness for this type of prohibited behaviour and to demonstrate that such cartels result in inflated prices.

The Ticino road surfacing cartel is a notorious case. It was a reaction to a price war between the enterprises of the road surfacing market in the nineties in the canton of Ticino. In 1998, a frame convention was established between the enterprises to share the assignments of all cantonal public road works and private assignments above CHF 20'000 (EUR 12'255).⁶ The convention was concluded for an undetermined period. Its aim was to ensure good work quality and a fair price level for road surfacing assignments based on reciprocal loyalty. To achieve this, each firm should receive a certain volume of assignments according to its economic importance. The latter was taken into account by a firm-specific multiplicative factor.

The members of the cartel maintained a bid-rotation system from 1999 until at least the end of 2004. 17 of 18 enterprises which were active in the road surfacing in the canton during that period were involved in this agreement. Meetings were held on a weekly basis. During these meetings, for every new assignment of private and public entities (tender procedures and direct awards of contracts) the cartel members agreed on the enterprise which should win the bid. The Comco has documentary evidence for these weekly meetings from January 1999 to December 2003. From the end of 2004 until 31 March 2005, the meetings between the cartel members took place less regularly and stopped completely after the end of March 2005. For this last period, the Comco does not have any documentary evidence.

The Comco made a list of all successful bids for the years 1999 to 2003 of the 18 enterprises and multiplied their price with the factor according to the frame convention. The resulting market shares over these five years match quite accurately the market shares agreed upon in the convention.

The transition period provided in the new Cartels Act expired on 31 March 2005. In April 2005, the Comco opened its investigation in the Ticino case. Shortly after, a price fall by 20% to 40% in the road surfacing market in the canton of Ticino could be observed (see figure 1). A similar price drop could not be seen in other cantons. The Comco carried out a comparison of the volatility of the price offers between 1996 and March 2006 (225 tenders) which clearly demonstrates that the price volatility was much lower during the cartel than afterwards (see figure 2). Thus the cartel significantly reduced the difference between the lowest and highest offer.

⁴ Strassenbeläge Tessin, RPW 2008/1, www.comco.ch, link: „Neue Entscheide“ (<http://www.weko.admin.ch/news/00008/Strassenbelaenge-D.pdf?lang=de>).

⁵ Markt für Strassenbeläge, RPW 2000/4, pp. 588–636.

⁶ Exchange rate: CHF/EUR= 1.6320 (7 May 2008, www.snb.ch).

Figure 1: Price fall of bidding prices: Deviation of the lowest bid from the cost estimate

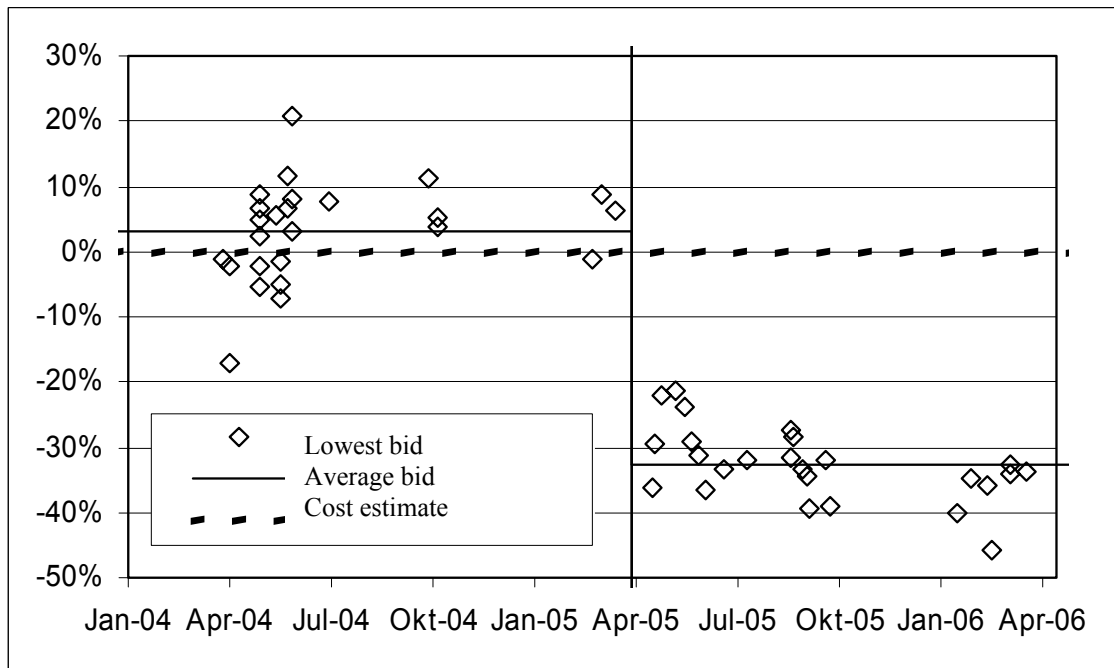
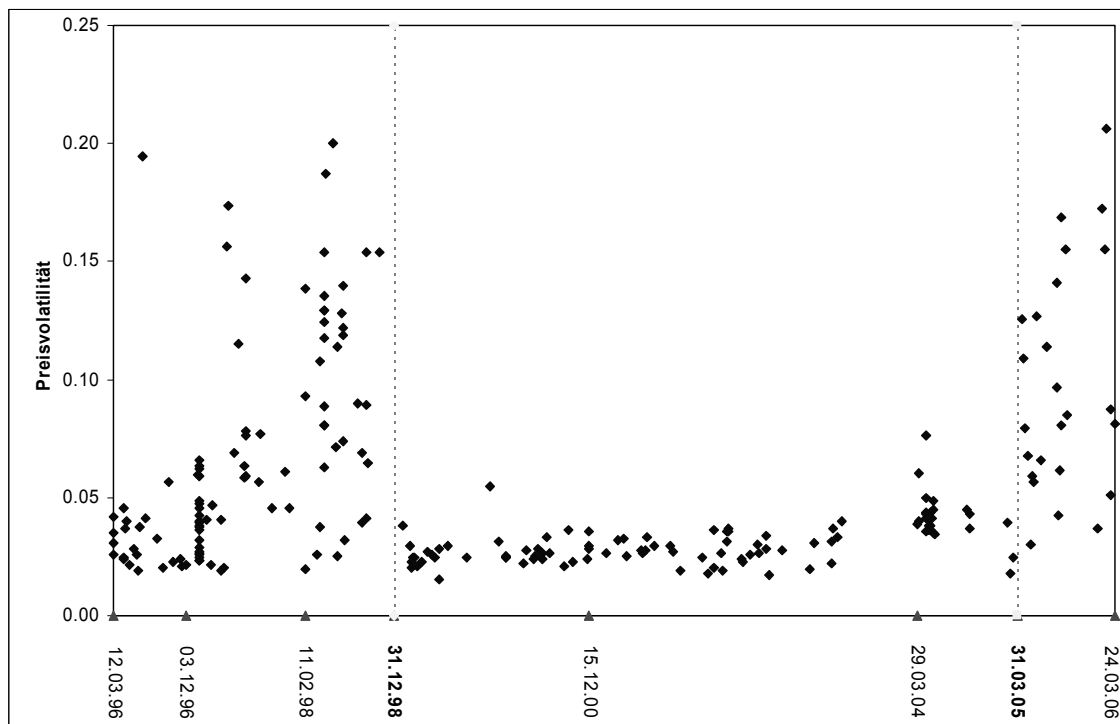


Figure 2: Changes in the volatility of the bids



2.2 *The tunnel construction sector: the NFLA case*

In 2004, reacting to a complaint, the Comco opened an investigation regarding the prices of the cement and concrete supplies for the New Rail Link through the Alps (hereafter NRLA).⁷ The NRLA is a railway project that includes in particular the construction of two of the largest railway tunnels worldwide (with lengths of 43 km and 57 km).

The cement market in Switzerland is highly concentrated. There are but three cement firms with a total of seven cement works. No collusion could be proven. All three Swiss cement producers have been suppliers for particular NRLA construction sites, but no foreign producers have been cement suppliers. An important reason for the latter are federal environmental regulations, which oblige to transport cement and other heavy products for large production sites such as those of the NRLA by railway. Whereas all Swiss cement production sites have a direct connection to the railway track, only few foreign cement works have such a direct access to the railway system, thus making a possible supply of the NRLA too costly.

3. **Characteristics of the construction sector facilitating cartel agreements**

Several typical characteristics of the construction sector might facilitate cartel agreements. Three of these characteristics will be discussed below.

3.1 **Local dimension of the relevant market**

The great majority of our cases in the construction sector has a local/regional dimension.⁸ This might be an element that explains why firms can collude more easily in the construction sector than in other sectors. Moreover, when an open bidding procedure is not mandatory by law, the procuring authorities tend to award the mandate not in an open tender, which can result in the number of bidders being very low. Thus the ability to collude increases.

3.2 *Significant variations of the construction volume*

In general, the construction sector strongly depends on the business cycle and thus experiences important variations of the overall contract volume over the years. Enterprises of this sector might thus tend to compensate this uncertainty with collusive practises. In the Ticino case, the enterprises involved stressed that the cooperation was in the interest of both firms and public procurement entities. According to the firms, a ruinous price war leads to the award of construction work below costs, the deterioration of work quality and the increase of unemployment. According to a previous cantonal act in Ticino that the canton should award its road surfacing work by taking the work load of the different enterprises in the canton into account.

3.3 *Vertical integration: Joint ownership of upstream firms*

Several upstream markets of the construction sector are markets that are characterised by joint ownership. One of these upstream markets is the production of bitumen.

The bitumen market is an upstream market for the road surfacing market. It is a regional and concentrated business. In the Ticino case presented earlier, all six bitumen plants in the canton were controlled by one or several of the eighteen cartel members. According to the cartel convention, they were not allowed to supply bitumen to competitors outside the agreement. Clearly, the financial and personal

⁷ Neue Eisenbahn-Alpentransversale (NEAT), RPW 2007/3, pp. 415–430.

⁸ See Zschokke Holding AG/Batigroup Holding AG, RPW 2007/1, pp. 105–107.

involvement in the upstream market favoured the collusion and helped to sustain it. The fact, that outsiders could not purchase bitumen from the production plants belonging to the cartel members fostered the cartel's stability.

TURKEY

1. Introduction

Construction business in Turkey is a very competitive and unconcentrated market where plenty of undertakings operate as determined in an earlier decision by the Competition Board.¹ As a result, no competition issues have been addressed directly in the construction industry under the Act no 4054 on the Protection of Competition (Competition Act). However, competition issues were discussed in many markets related to materials used in the construction industry such as cement, ready-mixed concrete, and aerated concrete. Thus, this paper will focus on those sectors due to their relevance.

Cement market, which is prone to cartel activity, together with ready mixed concrete and aerated concrete markets have been investigated more than 10 times in Turkey during the Turkish Competition Authority's (TCA) 11-year enforcement record. Although this sector has not gone through a serious investigation during the last one year, there were many mergers and acquisitions transactions which were examined with care during this time period. Moreover, complaints were received from the "ready mixed concrete" sector last year. But none of these complaints ended up in a serious investigation. It is also important to mention a rather recent Competition Board (decision making body of the TCA) decision concerning the follow-up of this sector. According to this Competition Board decision², all undertakings active in the cement and ready mixed concrete sectors have to send information about their production, sales and capacity information to the TCA every three months. The enforcement of this decision is about a year old.

2. Market characteristics

2.1 General Information on Cement Markets in Turkey

There are many cement plants that are homogeneously distributed all over Turkey. Having said that the concentration of cement factories in the Northwestern part of the country is greater as that part of the country has the highest population density which is also the most developed region. The country's total clinker production capacity is 39 mn tpa (tonnes per annum) and cement grinding capacity is 66 mn tpa, ranking Turkey as the second largest in Europe and the seventh largest in the world. The Turkish cement sector was fully privatized in the 1989-1997 period. Privatization and ensuing merger and acquisition transactions altered the ownership structure in the industry and led to the emergence of three major groups within the country:

- Multinationals;
- large domestic groups;
- independents (These are family owned, usually one-plant producers with no connections either to first or second group).

¹ *Acquisition of Garanti Koza by Balfour Beatty* (dated 3.8.2000, numbered 00-29/307-174).

² Competition Board decision dated 19.9.2006, numbered 06-66/889-M

Similar to this sector's rich history of antitrust cases all over the world, the Turkish cement industry has often been the subject of investigations by TCA during its 11 year enforcement. The subject of these investigations is mostly about collusive behaviour in the form of price setting or market sharing in local markets. In the last few years the cement producers in the Mediterranean, Aegean, Marmara and Central Anatolia regions, which produce approximately 75 percent of total cement production in Turkey, were subject to a series of collusive behaviour investigations and were found guilty and penalized. There are some facilitating practices which lead to continuation of cartel behaviour in this sector. They are information exchange, standardization procedures and geographical pricing systems. Geographical pricing systems exist in Turkish markets.

2.2 *Market Definition*

Cement is basically defined as white and grey cement. Grey cement is generally used as the main additive in construction and infrastructure sectors whereas white cement is used in the production of additives, filling substances, architectural and decorative concrete, prefabricated exterior facades etc. However, all types of cement are produced from clinker after some additives are added. Cement is also divided into bagged and bulked cement according to its marketing methods.

2.3 *Barriers to Entry*

There are certain features that facilitate anti-competitive practices especially in cement market. First of all, this market is characterized by entry barriers such as requirement to have significant amount of capital, economies of scale, vertical integration and the need to set up a distribution system. Following explanations are granted in one of the cement decisions of the Competition Board regarding entry barriers in the sector.³

The requirement to have *significant amount of capital* is considered deterrent for the firms to newly enter the market. The Competition Board states that the European Commission evaluates the need for high amount of capital as entry barrier without taking sunk costs into account. The deficiencies in capital markets are determinative for capital needs to be considered as an entry barrier. Due to asymmetric information in capital markets, new firms with smaller balance sheets can only raise a loan with higher interest rates because they are expected to be more likely to go bankrupt. Any undertaking willing to enter this market by constructing a new factory with a capacity of 1 million ton/year, regarded as the optimal scale in the sector, will need to invest USD 100 million. The cement sector is an oligopoly market with undertakings having large amount of capital. This structure increases the need for capital for firms to newly enter the market. Furthermore, the Competition Board considers it obvious for firms to newly enter the market to have difficulty to find credit or to be in a position to endure high capital cost due to the existing problems in capital markets in Turkey. Therefore, the Competition Board decides that sunk costs and the need for capital constitute serious entry barriers in the cement market.

Economies of scale have an important effect over fixed cost and cost of labour in cement sector because the main process is simple, the product is homogenous and technology is applicable by everyone. Therefore, the undertaking to newly enter the market has to invest in great amounts and produce at a great scale to be able to carry out price competition. It is accepted that optimal capacity is 1 million ton per year. The cement market that has had excess supply previously due to incentives granted, faces great narrowing in demand after economic crises in the country and then the earthquake. Excess production in the sector that is saturated is tried to be decreased via export. The Competition Board evaluates that excess supply in

³ See *Cement* case (dated 19.10.2006, numbered 06-77/992-287). The explanations regarding entry barriers in the cement market were taken from the contribution by Turkey to the Roundtable on Barriers to Entry held within the Competition Committee on 19-20 October 2005.

this sector constitutes an entry barrier. Likelihood of new firms' entry into the market is low even in case of increase in demand due to excess capacity and the existence of firms benefiting economies of scale.

Vertical integration is another issue considered as entry barrier in this cement decision. Cement is produced from clinker after some additives are put in. Cement is the main input for ready-mixed concrete. Due to this intertwined structure of clinker, cement and ready-mixed concrete, the existence of firms that operate at production levels of each of these products with an integrated system is regarded as entry barriers by the Competition Board. Integrated firms that operate in clinker, cement and ready-mixed concrete markets do not only create difficulties for independent cement or ready-mixed concrete producers that are in need of these materials to use them as main ingredients of their production, but also constitute serious entry barriers for the new comers. Any undertaking willing to enter clinker, cement and/or ready-mixed concrete markets has to bear the hardships and disadvantages because there are producers that produce all the three products in the market. If a firm willing to enter the ready-mixed concrete market also produces clinker and cement, it would enjoy cost advantages. Therefore, the requirement to realize similar integration to enter an integrated market for a new investor can be said to constitute an important entry barrier.

Distribution system is another factor examined as an entry barrier in the cement sector. Especially, it is necessary to sell packaged cement through a distribution system. The current distribution system requires distributors to buy all requirements from a single cement producer. Therefore, new cement producers have to set up a new distribution network if they want to distribute their products. Moreover, consumers of cement are scattered widely and this increases the number of distributors to be set up.

2.4 Product

Apart from entry barriers, cement market has some other characteristics enabling anti-competitive practices such as homogenous nature of the product. Besides, it is a product which is produced by a limited number of producers, which cannot be stocked as it should be consumed in a short period of time (no more than 3 months) and which can be sold within a specific geographic area because of high transport costs. Moreover, due to the difficulty to differentiate cement, addressing different customer groups does not seem very likely. For instance, cement cannot be differentiated in colour, smell, like or packing unlike soaps. That's the reason why price is the only tool to increase competition within the market.

2.5 Elasticity of Demand

Another feature of the cement market is the fact that price elasticity of demand in the cement sector is low. Price elasticity of demand can be defined simply as the reaction of quantity of demand with respect to price changes. When the price elasticity of demand is low, the bargaining power of the customers would be low and it would be contrary to the common interests of the producers to have price reductions. If producers reduce prices, they could not face demand increases that would produce profits. This situation would also lead to permanency in agreements on price fixing among the undertakings that are active in the relevant product market.⁴

2.6 Excess Supply

It should be mentioned that in certain regions there is excess supply in cement market and the Competition Board considers that in markets where there is excess supply healthy competitive conditions

⁴ Information Note prepared and served as a basis for the Competition Board Decision Concerning the Follow up of the cement and ready mixed concrete sectors (dated 19.9.2006 and dated 06-66/889-M).

necessarily do not emerge and conditions may occur that encourage and facilitate cartels restricting competition.⁵

2.7 *Transparency and Oligopolistic Nature of the Market*

Cement producers in Turkey are publishing and announcing price lists for their customers and distributors at certain intervals. Nevertheless, actual prices are lower thanks to discounts given. Demand in the region, number of producers whose cement is sold in the region, region's openness to competition and transportation distance are the factors that determine the discount rate.⁶ Moreover, due to existence of common distributors serving different producers, it is possible for these rival producers to learn the actual prices applied by their competitors in a short period of time. Therefore, cement market can be described as a transparent one having the characteristic of a tight oligopolistic market with few producers.⁷

Information on regional demand having high level of accuracy that is obtained via market surveys carried out by cement producers as well as activities of Turkish Cement Manufacturers' Association enables cement producers to involve in anti-competitive practices such as sharing the most profitable sales among each other.⁸ Moreover, statistical infrastructure enabled by activities of the Turkish Cement Manufacturers' Association regarding information gathering and distribution of the information gathered facilitates tracking the results of anti-competitive agreements on setting regional production and sales among cement producers.⁹

3. **Types of collusive activities**

Price fixing¹⁰, market sharing¹¹, exclusion of competitors from the market¹² and the control of supply¹³ are the most common type of unlawful collusive behaviour that cement producers are involved in. Sometimes vertical restraints¹⁴ can also be the object of the investigation where the producers attempt to prevent interregional trade of the distributors. As can be seen, all those activities are closely related to cartelization among the undertakings.

⁵ *Cement* (dated 26.7.2008, numbered 07-62/740-268).

⁶ See footnote 4 and *Cement* case in footnote 2.

⁷ See *Cement* case in footnote 3.

⁸ See *Cement case* in footnote 6.

⁹ Ibid.

¹⁰ See for instance the following cement cases: (dated 24.4.2006, numbered 06-29/354-86); (dated 19.10.2006, numbered 06-77/992-287); (dated 26.7.2007, numbered 07-62/740-268). See also the following ready-mixed concrete cases: (dated 2.10.2006, numbered 06-68/927-266); (dated 19.10.2006, numbered 06-77/991-286).

¹¹ See *Cement* case in footnote 6.

¹² See *Clinker* case (dated 20.9.2007, numbered 07-76/908-346).

¹³ See ready mixed concrete case (dated 3.10.2006, numbered 06-69/931-268).

¹⁴ See *Cement* decisions (dated 5.12.2005, numbered 05-81/1118-320); (dated 24.4.2006, numbered 06-29/354-86).

4. Enforcement approaches

The Competition Act prohibits anti-competitive agreements, decisions and concerted practices in Article 4. The scope of the term “agreement” under the Competition Act is wider than the one under civil law as can be seen from the reasoning of Article 4 which is as follows: “... *the term agreement is used to refer to all kinds of compromise or accord to which the parties feel bound, even if these do not meet the conditions for validity as regards the Civil Law. It is not important whether the agreement is written or oral.*”

Moreover, the prohibition also covers anti-competitive concerted practices in addition to such agreements. To quote the reasoning of Article 4, “*Even if the existence of an agreement between the parties cannot be established, direct or indirect relations between the undertakings that replace their own independent activities and ensure a coordination and practical cooperation are prohibited if they lead to the same result.*” In line with this reasoning, third paragraph of Article 4 of the Competition Act overtly says that in cases where the existence of an agreement cannot be proved, but that the price changes in the market, or the balance of demand and supply, or the operational areas of undertakings are similar to those markets where competition is prevented, distorted or restricted, constitutes a presumption that the undertakings are engaged in concerted practice (concerted practice presumption). The reasoning of Article 4 goes on to provide the justification for the presumption as “*In a legal regime where agreements restricting competition are prohibited, these agreements are generally made in secret and proving their existence is quite difficult, sometimes even impossible. For this reason, in case the circumstances stated in the third paragraph of the article exist, presumption that undertakings are engaged in concerted practice has been accepted. Thus the burden of proof for not being engaged in concerted practice has been passed to the relevant undertakings and it has been intended to prevent that the Act became unworkable due to the difficulty of proof.*”

While using the presumption, the Competition Board thinks that a strict observance of the wording of third paragraph of Article 4 would require *demonstrating an impact occurred in the market or parallel behaviours*. However, if defences, which argue that in oligopolistic markets undertakings are in a mutual dependency and as a result relevant behaviours emanate from such dependency, are accepted, then the Competition Board has to rule that there appears no violation in the absence of extra evidence in addition to parallel behaviours.¹⁵ However, if extra evidence indicating *coordination* among undertakings is found in addition to parallel behaviours, the Competition Board considers that there would be no need to employ the presumption as there would already be a concerted practice contrary to Article 4. The Competition Board thinks if it is accepted that there must be evidence indicating *parallel behaviours and coordination*, then the presumption would be ineffective. As a result, the Competition Board states that;

- Standard of proof to utilise the presumption is lower than the one to prove concerted practice meaning that the presumption can be used if there are some indications of coordination even if it cannot obviously be shown that there is explicit coordination directly concerning the matter in question among the undertakings.
- It is not necessary to demonstrate impact occurred in the market in the sense that there is no need to prove parallel behaviours, it is sufficient to prove the existence of behaviours that is not ordinary under competitive conditions (or existence of behaviours similar to those in markets where competition is distorted) such as exchange of strategic, secret information (such as markets shares, price, sale quantities etc) among undertakings. Under such circumstances, the presumption could be used even if existence of an agreement cannot be proved.

¹⁵ See *Cement* in footnote 3.

The presumption is especially valuable in markets like cement market where there are repeated investigations and the undertakings are well aware of the value of certain documents such as organisers, jotters in proving the time and place of anti-competitive practices.¹⁶ As a result, they develop means to conceal documents indicating anti-competitive practices and therefore it becomes hard to find evidence.

For instance, in one case concerning cement market,¹⁷ the presumption is used to demonstrate violation of Article 4 of the Competition Act. In this case where parallel price increases among four cement producers operating in Aegean region were the subject of the investigation, an overt text of an agreement showing the violation of the Competition Act by the undertakings could not be found. However, there were many findings demonstrating existence of infringements of competition in the market. In this case, in line with the concerted practice presumption, cement prices in Aegean region were analysed and as a result parallel and high price increases were observed. The possibility that costs might explain such increases was discarded due to cost-price comparisons proving that costs during the relevant year followed a stable course. Therefore, it was seen that price increases have been realised independent of costs.

To give a brief account of the analyses carried out during the investigation in general, for instance, in 2002, despite price falls in packed cement from January to April, prices charged by some cement producers doubled in a short period of time -four months- beginning from April. Increase in inflation and exchange rate in this period was around 20% whereas costs incurred by the cement producers remain unchanged. To be more specific, prices by some cement producers were increased more than 100% with no relation to and therefore independent of costs, while inflation rate and exchange rate were 21% and 23% respectively in April-October of 2002 in İzmir, the largest city in the Aegean region.¹⁸ Moreover, in 2003, the increase in price of bagged cement in June-December in the gulf region of northern part of the Aegean region around 50% despite the fact that the inflation rate was around %2,20 and increase in exchange rate was minus. The increase in price was independent of costs. Price comparisons with other regions demonstrated that price of the same product was up to 65% higher in Aegean region than for instance that in Ankara although changes in costs between the two regions were minimal.

Moreover, during the TCA's on the spot inspections investigation, the two documents found were regarded as signs of coordination among competitors in the sense that the competitors held a meeting to realise price fixing practice. One of these documents indicated that one of the cement producers was appointed as the secretariat to organise the "business". In brief, business meant the prevention of unfair competition, unnecessary practices, price decreases, discounts and dumpings; as well as the preparation of regional plans on production-consumption. The other document showed that the cement producers held meetings in certain cities and those cement producers operating in a certain city attended the relevant meeting. However, it must be underlined that these two documents were only supporting documents indicating coordination among competitors and they were not the main element that the decision was based on. On the contrary, concerted practice presumption based on price increases is at the heart of the decision and the use of the presumption does not require the existence of such supporting documents.

Furthermore, the defence against allegations by the Competition Board that the cement producers were in a relationship of oligopolistic dependency was also assessed in the decision. Although undertakings in markets such as cement market could be in a relationship of oligopolistic dependency, the behaviours of the cement producers were more than what oligopolistic dependency could justify. First of all, all undertakings in the market follow decrease in prices to a certain extent to avoid losing market

¹⁶ Ibid.

¹⁷ Ibid.

¹⁸ Ibid. The decision also includes price analyses in other cities such as Aydın, Manisa and counties such as Ayvalık, Burhaniye, Edremit. Because İzmir is the largest city of the region, it is selected here as example.

shares. However, when there is increase in prices, it should not be a preferred policy under normal conditions as sales by an undertaking which does not follow increase in prices will rise to a great extent. Moreover, under normal conditions, an undertaking which intends to increase the prices runs the risk of not being followed by the rivals and as a result it avoids increasing prices unless it is obliged to do so. However, in case all the undertakings are certain that a price increase by an undertaking will be followed by others, then serious rise in prices could happen. On the other hand, rise in costs might also justify increase in prices. However, it was shown in the decision that abnormal increase in prices was independent of costs. In addition, price comparisons with relatively competitive markets and the two documents found were supporting the concerted practice presumption. Therefore, the oligopolistic dependency defence was not credible.

At the end of the investigation, the undertakings subject to investigation could not provide rational and economic facts such as increase in demand as the cause of price increase.

It should be mentioned that without the use of concerted practice presumption, it would not be possible to prove a cartel agreement of such a secret nature in sectors in which competition law and instruments of proof are known. But coordination and parallel prices should be shown to argue for a concerted practice. Indeed this is a good example to show the Competition Board's approach in dealing with cartel cases in the cement industry.

As mentioned before, it is not easy to find clear evidences any more in this sector. First of all, due to plenty of investigations that were carried out in the sector, undertakings learnt about the competition law and enforcement. Secondly, evidences are not strong any more. Thirdly, IT related forensic activities are lacking to attain more evidence. To overcome these difficulties the Competition Board decided recently that all undertakings active in the cement and ready mixed concrete sectors shall send information about their production, sales and capacity information every three months.¹⁹

5. Mergers

In 2007, 18 out of 232 merger and acquisition cases were finalized in the construction, cement and other construction related materials industry²⁰.

In Turkey, merger control provisions in Article 7 of the Competition Act are also applicable to privatization transactions conducted by the state²¹. In that respect, in 2005 9 cement factories which were under the control of the state were put up for sale²². When the concentration effects were taken into

¹⁹ Dated 19.9.2006, numbered 06-66/889-M.

²⁰ Annual Report of the TCA 2007.

²¹ To ensure timely review of such transactions, the Competition Board issued a communiqué in September 1998 (Communiqué 1998/4) specifically addressed to privatisation transactions administered by the Privatisation Administration. This was later amended to cover all privatisation transactions carried out by any public institution or organisation. Accordingly, privatisation transactions subject to Communiqué 1998/4 if certain conditions are met.

²² In year 2005, the cement factories belonging to Uzan Group and confiscated by the Saving Deposit Insurance Fund (TMSF) were put up for sale in Turkey. Since TMSF is a public institution, this transaction is considered as an acquisition via privatisation and thus it is evaluated under the Communiqué 1998/4.

consideration, the Competition Board did not permit the acquisition of 4 factories by the highest bidder on the grounds that it would either create a “collective dominance” or “dominance” in the relevant markets.²³

Following the Competition Board’s decision concerning the cement factories, successful bidders in two²⁴ cement factories filed an appeal to the Council of State²⁵ and the Council of State ceased the enforcement of the decision basically based on the claim that the Competition Act no 4054 didn’t mention “collective dominance” but “dominance”.

²³ First of all, the Competition Board did not permit the acquisition of **Ladik** cement factory by the highest bidder based on the fact that it would create a collective dominance, whereas it permitted its acquisition by the second successful bidder. With respect to privatisation of **Şanlıurfa** cement factory, the Competition Board denied its acquisition by one of the two successful bidders as collective dominance would be created in the relevant market and instead permitted its acquisition by the other bidder. Finally, the Competition Board did not permit acquisition of **Gaziantep** and **Van** cement factories by the successful bidders due to creation of dominance in the relevant markets.

²⁴ Ladik cement and Şanlıurfa cement factories.

²⁵ According to Article 55 of the Competition Act no. 4054, appeals may be made to the “Council of State” within due period against the final decisions, measure decisions, fines and periodic fines of the Board, as of communicating the decision to the parties. Appealing against decisions of the Board does not cease the implementation of decisions, and the follow-up and collection of fines.

UNITED KINGDOM

The roundtable on competition issues in the construction industry is particularly timely for the UK's Office of Fair Trading. Following one of the largest ever Competition Act investigations, on April 17, 2008, the OFT issued a Statement of Objections (SO) against 112 firms in the construction sector in England, alleging bid rigging activities, and in particular cover pricing. Cover pricing describes a situation where one or more bidders collude with a competitor during a tender process to obtain a price or prices which are intended to be too high to win the contract.

Furthermore, the OFT currently is engaged in research that evaluates its effectiveness in relation to cartel activity in the construction sector, with a report expected in summer 2008. This submission examines both of these activities, as well as other recent OFT experience addressing competition issues in the construction industry. In addition, the submission provides direct responses to the call for papers requests to discuss, inter alia, market definition, product market concentration, barriers to entry, and case management.¹

1. Market Definition

The OFT adopts a standard approach to market definition, irrespective of the industry under consideration, that is set out in its guidelines.² There is no unique response to the question posed in the Secretariat's call for papers regarding whether building and structures form part of a single product market or whether separate markets can be identified for commercial buildings, residential buildings, infrastructure etc. This depends on the competitive constraints imposed by other firms within that market, which may reflect how the construction industry has developed historically as well as specific local or regional factors.

In order to determine the relevant market in an investigation into the construction sector the OFT will first establish the closest substitutes to the focal product. Such products are usually the most immediate competitive constraints on the behaviour of the undertaking controlling the focal product. When identifying the closest substitute products, it is necessary not only to consider demand side substitution, by applying the SSNIP test shown above, but also to assess the extent of supply side substitution, that is, how potential producers of the focal product would respond to a similar increase in its price.³

¹ Please note that the OFT's construction investigation is ongoing and the OFT's conclusions on issues such as market definition/the nature of infringements as well as the specific allegations, are provisional (subject to OFT consideration of the parties' views), and not definitive, in nature.

² The guidelines indicate that market definition starts with the product (the 'focal product') under investigation in a particular geographic area (the 'focal area') and the OFT considers whether a (hypothetical) single supplier of the product could profitably sustain prices at a level that is a small but significant amount (5%-10%) above competitive levels (the 'SSNIP test').² If sufficient customers would switch within a year to another product to make a rise in prices unprofitable for the single supplier then that product is included in the market and the test is applied again.

³ This is known as the hypothetical monopolist test. See OFT Guideline 403, *Market Definition*, December 2004, paragraphs 2.5 to 2.13.

On the demand side for most construction works there is limited possibility for substitution. Typically when customers seek quotes from building contractors for construction work it is for a particular type of construction project, e.g. for a new shopping mall or a new house or to refurbish an existing building, with possibly further specification where there potentially could be more than one way to carry out a particular project (for example, the use of different construction materials in which case the tenderer may specify a preference for one type of material or ask for quotes in the alternative for each potential solution). Although a customer may be able to vary the specification in response to a price increase, or even not enter into a contract at all, a customer is unlikely to enter into an entirely new contract in response to a small price rise.

On the supply side, there appears to be much greater ability to switch between different types of construction works, though consideration needs to be given in any particular case as to possible segmentation between categories and types of work (for example, between housing, healthcare, defence etc). The extent of supply side substitutability is determined by the extent to which firms can commence supply of a particular type of construction work quickly and without significant extra cost in response to a small increase in prices. Where this can be done within a year and without incurring substantial sunk costs⁴ it is likely that the products fall within the same relevant market.

To assess the extent to which different types of construction work fall within the same relevant market, survey evidence can be obtained by sending questionnaires to construction firms as well as their clients. The views of industry trade bodies can be canvassed and the results of industry market research and academic studies can be analysed.

In the OFT's mergers work, the most recent cases have not found it necessary to conclude on the product market definition. However, by taking a cautious approach the OFT has analysed various mergers by segmenting between housing and non-housing, private housing and public housing, infrastructure projects and other, and residential construction and commercial construction. Further details of the OFT's merger cases can be found on the OFT website.⁵

2. Product Market Concentration

A very important part of the UK economy, the construction industry appears fragmented. A statement by the Department for Business, Enterprise & Regulatory Reform (BERR) indicates that the UK's construction output is the second largest in the EU and contributes 8.2 per cent of the nation's GVA (Gross Value Added) based on 2006 figures⁶. More specifically, the latest Construction Statistics Annual report⁷ prepared by BERR shows contractors' output was £111.7 billion⁸ in current prices in 2006. The market can

⁴ *Market Definition - Competition Law Guideline* published by the OFT in December 2004 states that 'In this context sunk cost is a cost incurred on entering a market that is not recoverable on exiting the market'.

⁵ http://www.offt.gov.uk/advice_and_resources/resource_base/Mergers_home/. In particular see: OFT decision of 12 October 2007, Completed acquisition by Balfour Beatty plc of Cowlin Group Limited; OFT decision of 17 May 2007, Anticipated acquisition by Taylor Woodrow plc of George Wimpey plc; OFT decision of 13 April 2007, Anticipated acquisition by Barratt Developments plc of Wilson Bowden plc; OFT decision of 1 September 2006, Anticipated acquisition by Balfour Beatty plc of Birse Group plc; and OFT decision of 24 January 2006, Anticipated acquisition by Carillion plc of Mowlem plc.

⁶ <http://www.berr.gov.uk/sectors/construction/index.html>. The Construction Market Intelligence division at BERR indicates that this share which includes construction materials and products ('the wider construction market') is estimated to have grown to 8.7 per cent based on provisional 2007 output.

⁷ Construction Statistics Annual, BERR – August 2007 can be obtained from BERR's website at: <http://www.berr.gov.uk/sectors/construction/ConstructionStatistics/page16429.html>.

⁸ Table 2.4 Contractors' Output - Construction Statistics Annual 2007, BERR – August 2007.

be divided into two main types of work: new works which recorded an output of £64.4 billion, and repair and maintenance which had an output of £47.3 billion in 2006. Within the new works the report indicates that of the contractors' output, roughly three quarters (£48.8 billion) is accounted for by private sector works.⁹ New works are split into the following categories of work: private sector housing (£19.6 billion), public sector housing (£3.4 billion), infrastructure (£6.5 billion), industrial (£5.0 billion) and commercial (£29.8 billion). Within repair and maintenance work, two thirds (£31.4 billion) is private sector work with this work split fairly equally between housing and non housing works.

The latest available construction industry statistics prepared by BERR indicate that the industry is highly fragmented. Table 3.1 of Construction Statistics Annual 2007¹⁰ (reprinted in Annex 1 for ease of reference) indicates that there were 186,107 contractors' firms engaged in construction work in 2006. However, Table 3.3 of Construction Statistics Annual 2007¹¹ (reprinted in Annex 1 for ease of reference) indicates that of these, 180,131 (97%) have less than 25 employees and accounted for only just over a quarter of output in terms of the value of work done in 2006.

To date merger cases that have been scrutinised by the OFT have been cleared indicating that market concentration in these sectors/product markets has not been considered a concern (see above case references). Some of these mergers have been between construction companies of considerable size (e.g. Carillion plc and Alfred McAlpine plc), so while there does seem to be some consolidation taking place, overall concentration in the industry is low.

3. Barriers to Entry

The large number of small firms in the construction industry suggests that barriers to entry are low. This has been confirmed in merger investigations, where the OFT has found that factors that might deter entry can be subcontracted, for example, much of the plant and machinery is hired or leased, and advance payments can facilitate outlays. Of course, the generality of this proposition would need to be tested in any particular case, particularly where there is a possibility that the barriers to entry (and switching) may differ between different types of construction work.

The article by Ball, Farshchi and Grilli¹² indicates that construction firms specialise in particular activities according to location, the size of projects, and the type of work undertaken. They indicate that *'Only large firms can raise the financial resources necessary to undertake large projects; work teams dedicated to office building cannot be switched easily to civil engineering work; firms specialise on a regional basis; and so on'*. Whilst this might restrict entry into submarkets, the article goes on to say that freedom of entry is substantial as clients may be tempted by lower prices to use a new entrant to the market.

However Professor Hughes' book on Procurement in the Construction Industry¹³ indicates that there may be some barriers to expansion especially as concerns smaller firms bidding for highly complex

⁹ Table 2.8 Contractors' output by type of work - Construction Statistics Annual 2007, BERR – August 2007.

¹⁰ Table 3.1 Private contractors: number of firms - Construction Statistics Annual 2007. This information relates to the number of private contractors' firms on BERR's register.

¹¹ Table 3.3 Private contractors: Value of work done - Construction Statistics Annual 2007.

¹² *Competition and the persistence of profits in the UK construction industry* – M Ball, M Farshchi, M Grilli, Construction Management and Economics (2000) 18, 733-745.

¹³ *Procurement in the Construction Industry – The impact and cost of alternative market and supply processes*, W Hughes, P Hillebrandt, D Greenwood and W Kwawu, Taylor & Francis, 2006.

projects where the total cost of bidding as a proportion of turnover is especially high. *'Taking the estimates of costs of tendering previously mentioned of ½-1 per cent for traditional contracts and 2-3 per cent for those involving finance, and assuming that for traditional contracts contractors obtain one in six contracts bid for and one in four for complex projects, then the total costs of obtaining work becomes 3-6 per cent for traditional work and 8-12 per cent for complex projects'*.¹⁴ It is notable that the National Joint Consultative Council for the UK recommends five to eight contractors for selective tenders¹⁵.

4. The nature of the cases; Types of collusive activities

The types of competition cases involving the construction industry in the UK are principally bid rigging cases involving cover pricing. Cover pricing describes a situation where one or more bidders collude with a competitor during a tender process to obtain a price or prices which are intended to be too high to win the contract. The tendering authority, for example a local council or other customer, is not made aware of the contacts between bidders, leaving it with a false impression of the level of competition and this may result in it paying inflated prices.

As described in the introduction, the OFT issued a Statement of Objections ('SO') on 17 April 2008 against 112 firms in the construction sector in England. The OFT formally alleges that the construction companies named in the SO have engaged in bid rigging activities, and in particular cover pricing.

The construction companies under investigation carry out general building work including construction of housing, as well as commercial and industrial construction both in the public and private sector. The SO allegations cover a diverse range of projects, including tenders for schools, universities and hospitals. A minority of the construction companies have variously entered into one or more arrangements whereby it was agreed that the successful tenderer would pay an agreed sum of money to the unsuccessful tenderer (known as a 'compensation payment'). These more serious forms of bid rigging are usually facilitated by false invoices.

The OFT's investigation originated from a specific complaint in the East Midlands in 2004, but it quickly became clear from the evidence that the practice of cover pricing was widespread. The SO's formal allegations therefore cover neighbouring areas including Yorkshire and Humberside and also elsewhere in England. The OFT has also received evidence of cover pricing implicating many more companies on thousands of tender processes, but has focused its investigation on approximately 240 alleged infringements which are being pursued in the SO. The 112 parties concerned now have the opportunity to make written and oral representations which the OFT will take into account before making a final decision as to whether competition law has been infringed, and as to the appropriate amount of any penalties the OFT may decide to impose on each of the firms concerned. Further details of the SO are available from the OFT's website¹⁶.

In addition to the current investigation the OFT has previously found infringements of the Competition Act in relation to cover pricing and other bid rigging infringements in roofing in five decisions between 2004 and 2006 (see press notices [46/04](#), [48/05](#), [126/05](#) and [34/06](#), with links to full decisions). Appeals of the first and last of these decisions to the Competition Appeal Tribunal (CAT) confirmed the illegality of cover pricing (see press notices [36/05](#) and [32/07](#), with links to full decisions).¹⁷

¹⁴ See note 12. *Procurement in the Construction Industry*, page 83.

¹⁵ National Joint Consultative Council 1994.

¹⁶ See <http://www.ofc.gov.uk/news/press/today?prid=532634>.

¹⁷ The OFT's full decisions in these cases are available from the appropriate press release link.

Although the construction industry is only one of a number of industries in which the OFT has uncovered a significant number of competition law violations, it does appear that there was widespread practice of cover pricing in the construction industry. This practice has been described by the industry itself as 'endemic' and it appears that only significant enforcement action of the type currently being undertaken by the OFT is likely to eradicate it.

5. Prone to collusion

As discussed in the previous section, the industry appears prone to collusion within the UK. The OFT is conscious that other countries (such as the Netherlands) have uncovered bid rigging problems on a similar scale.

Collusive behaviour is usually associated with industries where there are only a few firms and where there is a degree of transparency such that competitors can monitor each other's behaviour. The construction industry does not conform to this stereotype given that it does not exhibit high concentration and its structure is relatively fragmented. However, certain factors may facilitate collusive behaviour when firms are tendering for projects. These include the fact that those in competing firms seem to know each other and can gauge which firms are likely to compete for projects. This may reflect the fact that, for example, firms generally compete amongst the same firms at a local/regional level and get to know about other firms bidding through relationships with subcontractors. This last factor may be particularly conducive to cover pricing, augmented by the activities of information gathering organisations and trade associations.

In recent years there has been a move towards establishing partnership arrangements with clients based on a package of projects rather than an individual project. Within these partnership arrangements, quality assurance is as important as price and this may have lessened the ability of construction companies to collude.

Cartel activities are notoriously difficult to spot and this applies equally to the construction industry. In terms of cover pricing, it is difficult for a procurer to know that it is a victim when it cannot even be sure that prices generally are at a competitive level following years of bid rigging activity.

6. Enforcement approaches and case management

The OFT's investigation into bid rigging in construction originally stemmed from a notification by an auditor working at a hospital in the East Midlands, that there had been suspicious bidding patterns on tenders for works. Initial visits to a number of construction companies uncovered considerable evidence of bid rigging and the OFT proceeded to obtain large quantities of evidence from further dawn raids and leniency applications that took place over the next two years. Although the OFT could in all likelihood have obtained many times the amount of evidence through further visits and leniency applications, it decided to draw its investigation phase to a close and focus its investigation in order to reach a decision effectively and comparatively quickly. It is hoped that the relatively early imposition of meaningful penalties will act as a significant deterrent to cover pricing and other bid rigging activities in the future.

As the question suggests, the endemic nature of the practice of bid rigging in the construction industry in the UK led to some new case management issues for the OFT which have required innovative solutions. The case is still ongoing and therefore detailed accounts cannot be provided at this stage, but in general terms objective selection criteria were used in order to focus on those parties where evidence of bid rigging was greatest and strongest. Systematic processes have been used, including comprehensive use of spreadsheets, to keep track of all aspects of the case, and these have been accompanied by excellent,

dynamic team work to deal with Access to File and the compilation of by far the largest SO in the OFT's history.

Given the endemic nature of the practice, the OFT has some concerns about the potential for exclusion of the cartel participants from tendering for work in the future. It is highly likely that many companies that do not feature in the SO have also engaged in cover pricing, although of course this is unproven, and it might therefore seem unfair to target those companies in the SO and thereby punish them twice in effect. These concerns are particularly strong in the case of the leniency applicants, who have to 'clean up their act' as part of the leniency agreement with the OFT. The OFT has therefore issued a 'Note to procurers' which sets out its broad views on these issues¹⁸.

7. Cost overruns

The OFT does not consider that potential for cost overruns are an argument for collusive activity, any more than the argument that is often put that companies needed to obtain and submit cover prices in order to remain on tender lists where they did not really want the work. If a contractor wishes unilaterally to increase its bid in order to either lose the job or account for the possibility of a cost overrun, it is at liberty to do so providing this is not done in collusion with a competitor.

8. 'Ruinous' competition and cooperation versus competition

No evidence has been provided in merger cases that competition is 'ruinous' in the construction industry. Whilst there are upfront costs of tendering, these are included by firms in overheads and are recouped through tenders that are won. Professor Hughes notes that the construction industry¹⁹ is notoriously subject to fluctuations in demand so that the overall market demand and supply situation is constantly changing. He considers that in periods when work is short, contractors will have to bear extra costs associated with bidding for work and profits will fall below normal levels. However he notes that in a period of boom, when clients are having difficulty in finding contractors to undertake the work, the contractors can recoup all overheads and much more besides and profits will be supernormal.

As regards the cover pricing practices that have been common in the UK these have been justified by some industry commentators not in terms of a mechanism to avoid ruinous competition but as a way to keep in with clients. A recent Financial Times article noted that the practice involves '*calling a rival bidder for the same project to get an estimate of a 'plausible' bid level that would not win the tender but would equally avoid the uninterested bidder looking unprofessional*'²⁰. Such practices whilst not as serious as other bid rigging practices involving compensation payments are nonetheless illegal as confirmed by recent CAT decisions involving roofing.²¹

9. Evaluating the OFT's effectiveness and impact

The OFT is engaged in research to evaluate its effectiveness in relation to cartel activity in the construction sector, as mentioned above. The research has three key objectives:

¹⁸ See http://www.of.gov.uk/shared_of/business_leaflets/general/Information-Note.pdf.

¹⁹ Hughes, op. cit. at 84.

²⁰ *Construction – Fines could be the least of the worries for wrongdoers: News Analysis by Stanley Pignal and Michael Peel*, Financial Times dated 18 April 2008.

²¹ *Apex Asphalt and Paving Co Limited v OFT [2005] CAT 4 and Makers UK Limited v OFT [2007] CAT 11*.

- to identify any evidence of impact of OFT past cartel investigations and decisions in the construction industry;
- to understand the context in which bid rigging takes place in the construction industry and what might limit the impact of OFT enforcement; and
- to provide practical recommendations, supported by evidence and an assessment of their likely benefits relative to their likely costs, for:
 - what could be done to make enforcement more effective; and
 - what non-enforcement actions are likely to work effectively in discouraging bid rigging in the construction sector.

A combination of quantitative and qualitative approaches have been adopted to achieve these objectives, including surveys of construction companies and procurers of construction services. Fieldwork was conducted before the issue of the April 17 SO, allowing opportunities for further follow up work to measure changes in sector awareness post SO.

The project is still a work in progress at present with analysis of findings ongoing. Some emerging findings from recently completed company and procurer surveys include:

Construction company survey

- 7 in 10 respondents were not aware of previous or current OFT cases in the construction sector. Of those aware of OFT cases, media reports were the most important source for learning about cases.
- Cover pricing was seen as the main form of bid rigging in existence. 18% of respondents actually believed cover pricing to be legal.
- Criminal prosecution, banning firms from certain activities and fines were considered particularly important approaches for specifically deterring bid rigging.
- High profile cases, more media coverage of decisions against construction firms and stronger fines were identified as the three most effective approaches for raising awareness of OFT work.

Procurer survey

- Only 2 in 10 procurers said that they would not invite companies to tender if they had failed to provide bids for other construction contracts.
- However, if a firm had been found guilty of bid rigging activities, 76% of procurers said this would result in the firm in question being excluded from participating in their procurement exercises.
- Firms found guilty of bid rigging would tend to face a relatively long period of exclusion, with 58% of procurers excluding for more than 5 years.

A final report drawing together findings from the different research strands will be published on the evaluation pages of the OFT's website during summer 2008.

ANNEX 1

Table 2.4 Contractors' output

Current prices (£ million)													Great Britain	
		New housing			Other new non-housing work Other new work excluding infrastructure				Repair & Maintenance				All Repair & Maintenance	All work
		Public	Private	Infra-structure	Public	Private industrial	Private commercial	All new work	Public	Private	Public	Private		
2005	Q1	664	4,375	1,554	2,543	1,000	4,169	14,304	2,043	3,712	2,026	3,610	11,391	25,696
	Q2	671	4,636	1,581	2,529	1,053	4,307	14,776	1,978	3,797	2,029	3,624	11,428	26,204
	Q3	633	4,713	1,673	2,489	1,089	4,375	14,972	1,785	3,864	2,051	3,795	11,495	26,467
	Q4	690	4,660	1,690	2,488	1,149	4,518	15,196	1,698	3,967	2,027	3,689	11,381	26,576
2006	Q1 (p)	819	4,720	1,672	2,484	1,203	4,719	15,617	1,930	3,869	1,971	3,672	11,442	27,059
	Q2 (p)	868	4,844	1,627	2,432	1,184	4,850	15,804	1,899	3,980	2,060	3,811	11,750	27,554
	Q3 (p)	883	4,994	1,639	2,454	1,211	5,189	16,371	2,093	3,879	2,064	3,897	11,933	28,305
	Q4 (p)	867	5,014	1,594	2,458	1,290	5,380	16,604	1,948	4,038	1,920	4,268	12,174	28,778

Notes

p = provisional

1. Output by contractors, including estimates of unrecorded output by small firms and self-employed workers, classified to construction in the 2003 Revised Standard Industrial Classification.

Source of data: Construction Market Intelligence, Department for Business, Enterprise & Regulatory Reform

Contact: James Achur 020 7215 1930

Table 2.5 Contractors' Output¹

Constant (2000) prices and seasonally adjusted (£ million)													Great Britain	
		New housing		Other new non-housing work			Repair & Maintenance			All				
				Other new work excluding infrastructure			Housing		Other work		Repair & Maintenance	All work		
		Public	Private	Infra-structure	Public	Private industrial	Private commercial	All new work	Public	Private	Public	Private		
2005	Q1 (r)	481	2,669	1,297	1,835	819	3,053	10,154	1,660	3,069	1,693	2,902	9,270	19,424
	Q2 (r)	476	2,875	1,322	1,817	874	3,221	10,585	1,598	3,069	1,596	2,872	9,136	19,721
	Q3 (r)	424	2,873	1,386	1,774	909	3,241	10,606	1,359	2,941	1,570	2,958	8,828	19,434
	Q4 (r)	433	2,815	1,323	1,806	980	3,373	10,730	1,292	3,019	1,532	2,830	8,672	19,402
2006	Q1 (p)	560	2,749	1,301	1,784	976	3,398	10,768	1,477	2,961	1,535	2,775	8,748	19,516
	Q2 (p)	586	2,815	1,225	1,744	961	3,540	10,872	1,441	3,019	1,552	2,848	8,861	19,733
	Q3 (p)	559	2,930	1,235	1,752	978	3,778	11,232	1,513	2,804	1,503	2,844	8,663	19,895
	Q4 (p)	523	2,927	1,178	1,759	1,066	3,900	11,353	1,394	2,890	1,346	3,109	8,738	20,091

Notes

r = revised; p = provisional

1. Output by contractors, including estimates of unrecorded output by small firms and self-employed workers, classified to construction in the 2003 Revised Standard Industrial Classification.

Source of data: Construction Market Intelligence, Department for Business, Enterprise & Regulatory Reform**Contact:** James Achur 020 7215 1930

Table 3.1 Private contractors: Number of firms^{1,2}

Great Britain	3rd quarter each year								
	1998	1999	2000	2001	2002	2003	2004	2005	2006
(a) By size of firm (by number employed)									
1	87,837	88,018	87,712	77,926	71,431	70,370	71,620	73,117	71,960
2-3	47,918	49,350	48,773	50,653	50,306	53,022	55,027	57,320	58,910
4-7	16,391	16,969	16,584	22,455	23,963	25,704	26,865	28,435	30,375
8-13	3,988	4,148	3,790	8,044	9,819	10,508	10,982	11,599	12,230
14-24	3,274	3,271	3,104	4,920	5,427	5,892	6,161	6,341	6,656
25-34	1,201	1,332	1,201	1,782	1,809	1,932	1,985	2,037	2,056
35-59	1,263	1,188	1,109	999	1,782	1,821	1,906	1,928	2,034
60-79	419	397	364	354	457	583	550	573	583
80-114	319	304	271	304	425	451	464	469	467
115-299	405	379	341	433	520	535	560	556	562
300-599	125	105	91	129	123	135	148	148	148
600-1,199	56	58	51	68	62	75	75	65	72
1,200 and over	40	42	35	56	57	64	60	56	54
All firms	163,236	165,561	163,426	168,123	166,181	171,092	176,403	182,644	186,107

Notes

.. = not available due to change of classification

1. Information relates to the number of private contractors' firms on the Department's register.
2. The number of firms include some which were temporarily inactive.

Source of data: Construction Market Intelligence, Department for Business, Enterprise & Regulatory Reform

Contact: James Achur 020 7215 1930

Table 3.3 Private contractors: Value of work done¹

Great Britain	3rd quarter each year: £ million								
	1998	1999	2000	2001	2002	2003	2004	2005	2006
(a) By size of firm (by number employed)									
1	1,106.2	1,471.1	1,415.4	870.1	448.1	657.0	469.6	765.6	777.7
2-3	1,069.4	1,364.8	1,798.8	1,618.7	512.8	1,005.8	945.4	990.2	980.8
4-7	889.8	1,173.7	1,281.4	1,473.7	1,236.8	1,558.4	1,349.1	1,246.4	1,327.0
8-13	574.4	554.4	604.9	1,121.6	1,354.1	1,522.5	1,527.1	1,698.0	1,770.6
14-24	865.0	773.2	881.5	1,311.0	1,695.6	1,594.3	1,809.1	1,875.3	1,910.1
25-34	533.0	557.9	767.3	907.8	845.1	895.1	1,110.5	1,081.6	1,217.3
35-59	1,004.1	1,059.3	1,080.8	943.9	1,791.4	1,794.1	1,956.1	1,991.5	2,167.8
60-79	503.8	574.1	618.5	506.3	745.9	852.8	978.1	1,027.0	1,131.4
80-114	630.9	627.4	693.9	694.7	958.5	1,088.9	1,239.6	1,249.1	1,269.5
115-299	1,388.5	1,405.2	1,503.5	1,680.9	2,522.2	2,475.9	2,896.9	3,051.2	3,426.4
300-599	934.9	868.6	960.7	991.4	1,307.5	1,492.8	1,754.1	1,898.5	2,046.1
600-1,199	1,120.4	1,099.3	1,280.0	1,424.5	1,680.4	1,399.3	1,560.2	1,290.3	1,468.3
1,200 and Over	1,488.4	1,730.0	1,123.3	1,866.6	2,754.4	3,653.8	4,061.0	4,489.4	4,875.5
All firms	12,163.0	13,259.0	14,010.1	15,411.4	17,852.7	19,990.7	21,656.8	22,654.1	24,368.6

Notes

.. = not available due to change of classification

1. Information relates to the number of private contractors' firms on the Department's register.

Source of data: Construction Market Intelligence, Department for Business, Enterprise & Regulatory Reform

Contact: James Achur 020 7215 1930

UNITED STATES

1. Introduction

Construction is an important sector of the U.S. economy, accounting for about 5 percent of gross domestic product. In 2002, over 7 million individuals were employed in construction, and the value of all construction work done was \$1.2 trillion. Small businesses are the mainstay of some segments of the construction sector. For example, establishments with fewer than 50 employees account for more than 70 percent of the value of single-family housing construction.

Construction is a highly diverse sector. It encompasses all sorts of buildings: residential, commercial, and industrial. It encompasses all sorts of civil engineering projects: streets and highways, bridges, water and sewer lines, dams and power plants, and so forth. And it encompasses all sorts of trades involved in each of the foregoing: carpentry, concrete, electrical, excavation, flooring, framing, masonry, roofing, painting, plumbing, and so forth.

Construction also is diverse with respect to matters relevant in competition policy. Competition in the construction sector commonly is highly localized, but for some large projects, the geographic scope of competition may be national or international. Most relevant markets in the construction sector have low levels of concentration, but concentration may be very high in sparsely populated localized markets as well as in highly specialized types of construction, such as large suspension bridges, for which highly specialized skills or equipment are required. Similarly, entry into most construction markets is easy, but for certain types of specialized construction, entry may be quite difficult, in particular because a record of success may be essential to be a viable competitor.

2. Antitrust Enforcement

The construction sector has been significant historically for U.S. antitrust enforcement. During the 1980s, the U.S. Department of Justice brought roughly five hundred criminal cases involving bid rigging in construction. (Because multiple cases are often filed against a single cartel, the number of distinct cartels was substantially less than five hundred.) These cases involved many different types of construction, but the vast majority involved public procurement, and about two-thirds involved road building.

Public procurement in general, and road building in particular, have in the past proven susceptible to bid rigging for two reasons. First, contracts were sufficiently numerous, or sufficiently divisible, that it was feasible to allocate a portion of the work to each conspirator. Second, public procurement rules designed to avoid corruption by adding transparency to the process provided information important in policing compliance with the cartel agreements. A deviation from an agreed upon allocation was detected both immediately and with certainty when the successful bidder on a contract was announced and its bid made public.

Although the road building industry continues to have characteristics that make bid rigging feasible, active enforcement with significant penalties, along with education of procurement officials, clearly have had a significant deterrent effect. During 1990–2003, the U.S. Department of Justice did not bring a single case involving road building, even though the Department was prepared throughout that period to investigate all credible allegations of bid rigging. With respect to bid rigging in road building, and public procurement in general, the record indicates that cartel enforcement generally has had the desired deterrent effect.

The Department has had one recent successful prosecution of a road-building cartel. The cartel rigged bids on a series of projects in Wisconsin costing more than a total of \$100 million. In 2004 indictments were handed down for two companies and four executives. In 2005 the companies and their executives pled guilty; fines and restitution totalled \$3.1 million, and the executives were sentenced to 882 days of incarceration and 635 days of house arrest.

Excluding cases involving road building, the U.S. Department of Justice has brought twenty criminal cases in the construction sector since the beginning of 2000. The cases involved a wide variety of construction projects, including natural gas pipelines, suspension bridges, and wastewater treatment facilities. In addition, the Department had a significant price-fixing prosecution in ready-mix concrete in Indiana, which yielded the largest ever fine imposed on a single defendant for purely domestic cartel activity (\$29.2 million).

The Antitrust Division of the U.S. Department of Justice often prosecutes crimes under federal statutes other than the antitrust laws. A recent group of related cases concerned bribery of a government official overseeing a \$3 billion repair and rehabilitation effort for sewer and wastewater treatment facilities in Alabama. Sixteen individuals and five corporations were convicted at trial and sentenced to substantial terms of incarceration, of up to 8 ½ years. In another case, one individual pleaded guilty to accepting a bribe when he was a federal official overseeing a levee construction project.

In recent years, the U.S. enforcement agencies have not challenged any mergers in the construction sector.

3. “Ruinous Competition” and the Antitrust Laws

The contention that competition in particular settings would be “ruinous” was commonly heard in the 19th Century. The contention that competition between privately owned bridges would be ruinous was made before the Supreme Court of the United States in 1837, in a non-antitrust context.¹ By the late 1800s, notable U.S. economists had expressed the view that demand and cost conditions could be such that price competition among several rivals would prevent each from earning a competitive return, and these arguments were frequently made in the courts.² After the Sherman Act became law in 1890, the Supreme Court addressed, and rejected, the contention that ruinous competition should justify otherwise unlawful price fixing by railroads.³

In the 1940 Supreme Court decision that crystallized the per se rule against price fixing, the Court rejected the argument that the challenged conduct was a reasonable response to the ruinous competition alleged to exist in the petroleum industry. The Court held that the Sherman Act did not permit the courts to consider such arguments: “Congress has not left with us the determination of whether or not particular price-fixing schemes are wise or unwise, healthy or destructive. It has not permitted the age-old cry of ruinous competition and competitive evils to be a defense to price-fixing conspiracies.”⁴

¹ Charles River Bridge v. Warren Bridge, 36 U.S. 420, 436, 461 (1837).

² See HERBERT HOVENKAMP, ENTERPRISE IN AMERICAN LAW, 1836–1937 ch.23 (1991); Herbert Hovenkamp, The Antitrust Movement and the Rise of Industrial Organization, 68 TEXAS LAW REVIEW 105, 129–36 (1989).

³ United States v. Joint Traffic Association, 171 U.S. 505, 576–77 (1898); United States v. Trans-Missouri Freight Association, 166 U.S. 290, 330–31 (1897).

⁴ United States v. Socony-Vacuum Oil Co., 310 U.S. 150, 221 (1940).

In the first half of the 20th Century, the mainstream view among U.S. economists was that competition generally worked, although ruinous competition was possible.⁵ Railroads were the one example of an industry subject to ruinous competition to which economists consistently pointed.⁶ In the late 20th century, that example was challenged,⁷ and U.S. railroads were substantially deregulated without outbreaks of ruinous competition. Modern economic theory continues to recognize the possibility of ruinous competition,⁸ but leading U.S. scholars of economic regulation now view ruinous competition as an empty box—a theoretical construct without a real-world counterpart.⁹

An auction scenario arising in the construction sector can be associated with a different phenomenon that could possibly be considered ruinous competition. This scenario is the “first-price” “common value” auction. In a first-price procurement auction, the low bidder is awarded the contract at amount bid. In a common-values procurement auction, the cost of performing the contract is common to all bidders, but is uncertain, and bids are based on estimates. This sort of auction is said to give rise to the “winner’s curse.” Bidding estimated cost, on average, results in a loss because the lowest of several independent estimates of the true cost, on average, is less than the true value. Economists, however, argue that rational bidders avoid the winner’s curse by bidding above their cost estimates, allowing a margin of error.¹⁰ Moreover, interviews with construction executives revealed that mechanisms had evolved to escape the winner’s curse or mitigate its impact and that experienced professionals could estimate costs very accurately, thereby eliminating the risk of any significant winner’s curse.¹¹ In our view, the possibility of a winner’s curse should play no role in cartel enforcement in the construction sector.

A final contention sometimes made under the general rubric of ruinous competition is that price competition can be undesirable because it leads to an erosion of quality and perhaps even undermines public safety. Reflecting on widespread collusion in his country’s construction sector, a Dutch academic recently opined: “Highly competitive environments might even lead to ruinous competition and ‘a race to the bottom,’ leading to problems with quality, safety, and compliance with the law.”¹²

The Supreme Court has addressed the possibility of this sort of allegedly ruinous competition. The case involved an agreement among consulting engineers to refrain from competitive bidding on contracts for the study, design, and construction of bridges, buildings, and other projects.¹³ The engineers argued that competition on price “would adversely affect the quality of the engineering” and “would be dangerous

⁵ See, e.g., John Maurice Clark, *Toward a Concept of Workable Competition*, 30 AMERICAN ECONOMIC REVIEW 241 (1940); Eliot Jones, *Is Competition in Industry Ruinous*, 34 QUARTERLY JOURNAL OF ECONOMICS 473 (1920); Lloyd G. Reynolds, *Cutthroat Competition*, 30 AMERICAN ECONOMIC REVIEW 736 (1940).

⁶ See, e.g., D. PHILIP LOCKLIN, *ECONOMICS OF TRANSPORTATION* 150 (7th ed. 1972).

⁷ See Richard C. Levin, *Railroad Rates, Profitability, and Welfare under Deregulation*, 12 BELL JOURNAL OF ECONOMICS 1 (1981).

⁸ See, e.g., LESTER G. TELSNER, *A THEORY OF EFFICIENT COOPERATION AND COMPETITION* ch.5 (1987).

⁹ See STEVEN BREYER, *REGULATION AND ITS REFORM* 29–32 (1982); Roger G. Noll, *Economic Perspectives on the Politics of Regulation*, in 2 HANDBOOK OF INDUSTRIAL ORGANIZATION 1253, 1257 (Richard Schmalensee & Robert D. Willig, eds. 1989).

¹⁰ See, e.g., PAUL KLEMPERER, *AUCTIONS: THEORY AND PRACTICE* 13–14, 53–55 (2004).

¹¹ See Douglas Dyer & John H. Kagel, *Bidding in Common Value Auctions: How the Commercial Construction Industry Corrects for the Winner’s Curse*, 42 MANAGEMENT SCIENCE 1463 (1996).

¹² A.G. Dorée, *Collusion in the Dutch Construction Industry: An Industrial Organization Perspective*, 32 BUILDING RESEARCH & INFORMATION 146, 153–54 (2004).

¹³ *National Association of Professional Engineers v. United States*, 435 U.S. 679 (1978).

to the public health, safety, and welfare.”¹⁴ The Court rejected this “frontal assault on the basic policy of the Sherman Act,” explaining that:

The Sherman Act reflects a legislative judgment that ultimately competition will produce not only lower prices, but also better goods and services. The heart of our national economic policy long has been faith in the value of competition. . . . Even assuming occasional exceptions to the presumed consequences of competition, the statutory policy precludes inquiry into the question whether competition is good or bad.¹⁵

The U.S. antitrust agencies believe that governments and other consumers of construction work can reap the benefits of competition without risking public safety. The procurement process has addressed public safety concerns by incorporating detailed requirements in the bid specifications and by accounting for both price and performance in awarding contracts. In addition, public safety has been addressed directly by adopting and enforcing building codes and similar regulations.

¹⁴ Id. at 685.

¹⁵ Id. at 695.

INDONESIA

1. Introduction

Problems in construction industry are arising due to the existence of a development agency for construction service (hereafter refers as “LPJK”) in undertaking its authorities and tasks. Several problems which arise are the legality of LPJK as an agency as being meant by the Law No. 18/1999 on Construction Service. Furthermore this problem also positioned in the implementation of LPJK’s role, which considered only benefited several parties, such as business actors that encourage the establishment of LPJK.

2. Policy characteristic in construction industry

In the elucidation of article 32 the Law No. 18/1999 explained firmly that in the process of development for construction industry, Government’s rule will be very dominant. But confidentially business development is handed over to the construction community. With regard to the structure of construction community as stated by the Law No. 18/1999, then the biggest role in developing construction industry is entrusted to a construction agency. The elucidation of the Law No. 18/1999 that stressed development of construction industry was handed over to the community without involvement of the Government still have to interpreted further. Especially the real definition on “Government in development of construction industry is still dominant, by these regulations, the development of construction industry was handed over fully to the construction community”.

The development of construction industry needs the role of the Government as policy makers. This policy direction will be critical in developing this industry; hence without supportive policy this industry could be ascertained will not develop accordance to our expectation. On the other hand without involvement from Government in industrial development will cause the Government “to not have enough knowledge” on the general progress of construction industry and Indonesian construction industry as especially. This often happened within dimension of relations between the Government and business society. The presence of this article could influence the interest of the Government in the construction service industry.

The main problem that ought to be worried with this relations model was the Government handed over all the problem that were linked with the development of construction industry to the construction community. When the Government asked about progress of the construction industry then on the basis of not his authority, the Government will not have the accurate data. In fact in the policy making process on construction industry, this condition is a must. For examples are data on company in construction industry, specialisation that was developed, an update data of interaction between stakeholder in the development of construction industry, and etc.

3. Problems on Construction Company in practices

3.1 Certification

In practice, certification will not be only carried out by LPJK but also by business association and appointed certification agency (such as education and training agency). Several actual facts showed that the

process of this certification became significant problem because this certification has becoming something new that cannot be apply swiftly in various activities in construction industry.

3.2 *Inability of business actors in following construction requirement*

This occurs considering that almost 91% (ninety one percent) of business actors in construction industry is small business actor that could not complete standard on certification in accordance to Government regulation.

3.3 *Rule on certification colliding with the Presidential Decree on Public Procurement*

Based on the Law No. 18/1999 concerning Construction Service and its implemented regulation, each participant in public procurement of goods and services in construction shall require having certain certification on expertise/skills. But in contrary, the Presidential Decree No. 80/2003 about Public Procurement of Goods and Services, the condition for certification was not being obligated. In fact the abolition of certification requirement arose when the Government revised the policy for public procurement in removing certification requirement by business association. This cause contradiction from Indonesian Chamber of Commerce (hereafter refers as “KADIN”) and National Development Agency on Construction Industry (hereafter refers as “LPJKN”) that argued of these rules broke conducive situation to maintained construction industry. Meanwhile the Government (that represented by National Planning Agency) considered that certification emerged by business association as requirements for public procurement of goods and services had caused inefficiency throughout high cost economics.

The Department of Public Works who is related to this issue gave their explanation that between the Law No. 18/1999 and the Presidential Decree No 80/2003 was not contradiction, even were in synergy one another. As for certification, statement by the Law No. 18/1999 is still valid because article 11 point 1 letter “a” of the Presidential Decree No. 80/2003 stated that requirement in providing goods and services in public procurement is *to inclusive with rules for running business activities as the provider of good and service*. Based on this regulation, hence implementation of public procurement in construction industry shall base on the regulation in this industry. Therefore, all public procurement in construction shall underline with the Law No. 18/1999 which include requirement for certifications.

4. Certification used to seize competition

In practice, there is large number of attempts to made certification as an intention to eradicate competition. This certification deliberation process was made difficult. Thus, it will limit number of competition within this industry. By the end this exertion will swell market concentration to several business actors because competition in significant construction projects was limited due to this requirement.

5. Indication on abuse of dominant position by construction agency

The very crucial problem and became question of many sides at this time (because tend to create high cost economy) was the authority to carry out certification that owned by the business association. Moreover in practice, this problem tends to show violation of the Law No. 5/1999 concerning Prohibition of Monopolistic Practices and Unfair Business Competition. In several binding process, conspiracy was tend to exist by using authority of giving certification. These are several activities in construction that potentially breach Indonesian competition law:

- The authority of business association in issuing certification used to discriminate certain

- competitor;
- Tendency to establish certain business association with specific scope of work;
- Potency for construction agency (LPJK) as the mean for cartel in the industry with paid close attention to strong domination of business actors in the competition agency (LPJK), thus by the end this agency will transform as a formal institution where certain arrangement in construction industry will be determined by business actor indirectly.

6. Main root in construction industry dealt with the institutional of construction industry

In previous analysis, it have been revealed that one of crucial foundation was positioned in disfunctionality construction institution as it should be, which factually dashed by LPJK. This problem happened to be complex because related to several institutional aspects that could not be satisfying as that ought to be wanted. To overcome this, the Ministry of Law and Human Right uttered that an institution according to the existing regulation in construction is the only construction agency that operated in Indonesia. Thus, this problem on LPJK's legality had congested.

Factually, role of construction development agency tends to centralise as well as there is still unclear where this institution will lead. The root problem in construction industry as whole is the weak institutional status of LPJK. LPJK only placed public participation as its main element; hence this institution will not be so different with other society organisation. The committee of LPJK was chosen by construction society and be responsible to national assembly of construction industry. On other side, the weakness of this institution is also shown by its roles of regulation. It makes that LPJK is far from image as a regulatory body in certain sector or as similar international construction institution. The existence of LPJK is more alike other society organisation, equipped with some attributes, such as rules of regulation and its national assembly. Under which condition, LPJK's status becomes unclear on whether as a society organisation or a regulatory body. The precise term in explain this will be LPJK is a regulator institution that served as a society organisation.

7. Wide phenomenon of construction companies and association that far from competition

Many sources obtained by KPPU showed that the complexity in this industry is caused by the high growth of construction companies and business associations that utilised the weakness of regulatory reform for personal interest. With regard to number of business associations every year, we will realise that their numbers are increasing, even though several existing associations nowadays are still adequate to accommodate all construction companies. The main weakness was that there is inadequate policy to control these new business associations. This is also being worse by weak infrastructure of LPJK that contribute to several competition violations in regional areas.

Regulation on how is the selection system for companies was not yet established thus only efficient and effective construction companies whose can compete. This will require a package of regulation that will pushed incompetent companies to the edge. Moreover, a black-list recognition system for individuals will also be needed to guarantee professionalism in this industry. Furthermore, there were also no regulations to control business association to achieve their competency. Regulation that based on Government regulation is not enough as a filter for business actors and business associations.

8. Harmonisation toward competition policy in construction industry

Notwithstanding industrial development that far from expectation, a significant effort by the Ministry of Public Work was made through draft for revision of the Government Regulation No. 20/2000 on

Construction Industry. Moreover, the Government also conducts several improvements in reforming LPJK toward community's expectation. One of which is the involvement of KPPU as a stakeholder in giving their advocacy toward fair competition as cite in the Law No. 5/1999. This used as one of the process for selection of Committee of LPJK. Involvement of KPPU is expected to give comprehensive knowledge for their committee as well as to push forward better development of Indonesian construction industry.

ISRAEL

The following report overviews the Israel Antitrust Authority (hereinafter: IAA) experience with respect to competition issues in the local construction industry as well as in several interrelated industries.

In recent years the IAA gained considerable experience in competition enforcement in the construction industry as well as in other interrelated industries, such as, liquefied petroleum gas (LPG), sewer pipes, plastic pipes for electricity cables as well as the cement industry. The IAA took decisive action against anti-competitive conducts which were detected in those industries, ranging from sharing of price information among competitors to hardcore cartels that included price fixing and division of the market. To this end, harsh enforcement measures were taken in response to violations of the law, including criminal sanctions against cartels which led to imprisonment sentences and heavy fines. In addition, the IAA became familiar with the specific characteristics of the construction market in the process of merger reviews.

The first part of the report provides a general overview of the construction industry in Israel, its history, structure and some of its main features.

In the second part of the report we shall briefly summarise the main cases in which the IAA was involved, with relation to the construction industry. The facts, procedures and outcomes of each case shall be described in a few words in order to lay the foundations for discussion.

Finally, we will focus on the lessons that have been learned from the overall experience in enforcing and promoting competition in the construction industry. Reference shall be made to specific features that affect the state of competition in the local construction industry and the industries which are closely associated with it.

General overview of the construction industry

1. The housing construction market

The housing construction market in Israel underwent profound changes over the last two decades. In the past, the government owned several construction companies and supported other companies in various ways in order to advance construction of public housing. Over the years the policy changed and today, the government is less involved in the "supply side" of the industry. In lieu, it became more involved in the "demand side" by aiding buyers in several ways, including financing loans, granting tax discounts and exemptions and subsidising mortgages.

A key reason for this change is the substantial wave of immigration that came from the former Soviet Union to Israel during the 90's. Over one million Jews immigrated to Israel during those years, which counted for over 15% of the local population. The immigration was a great national challenge that forced the government to intervene in the housing market by initiating housing projects especially in the periphery. This intervention came due to the fact that the supply of houses and accommodation solutions for the immigrants fell short of the existing demand. Due to this immigration wave the peak years in terms of the construction industry were 1995-1998. As will be discussed later, the increasing demand for housing

in that period, particularly between the years 1995-1998, was a fertile ground for many of the cartels that the IAA investigated and prosecuted.

2. The market for construction of infrastructures and buildings for commercial uses

In contrast to the housing construction market, the market for construction of infrastructures and buildings for commercial uses is still highly dependent on government support.

Although the financing methods of large scale construction projects developed to methods such as Build Operate Transfer (BOT) and other types of private funding, the government continues to play a key role, either directly or through the local municipalities.

In the field of buildings for public uses, commercial and industrial purposes, although most of the construction itself is performed by private companies, the initiative often lies with the local and municipal authorities.

Another fact that should be mentioned is that since 1975 the proportion of the housing construction among the total construction investments has fallen from 66% in 1975 to 55% in 2005. Meanwhile the percentage of infrastructure construction projects has risen from 13% to 20% and the share of construction of projects for commercial uses increased from 21% to 25%.

2.1 Selected features of the construction market

The Israeli construction industry is highly labour oriented mainly due to the relatively low costs of foreign labour from developing countries.

The construction industry in Israel consists of about 7-8 companies which are capable of executing large scale projects in addition to a large number of medium and small constructors and enterprisers. In terms of numbers of registered constructors Israel has witnessed a constant growth over the years.

In the first years of Israel, during the 1950's, the government controlled the construction market thru numerous construction companies that were state owned. These companies dealt with the entire spectrum of the construction market – from housing, thru infrastructure and construction of commercial and industrial parks. The government owned companies were finally privatised during the 1980-1990's and today they are owned by the private sector. As of today, the private sector owns most of the large construction companies by large local holding companies and business groups. It should be noted that some of these companies have significantly expanded abroad and today, many of them are engaged in substantial construction projects all around the world.

Another relevant feature worth mentioning with respect to the local housing market relates to the demand side. Most Israelis prefer to own their housing instead of renting it. The market for rented apartments, dominated primarily by students and young couples, is rather small, and most Israelis use long term mortgages to acquire private housing.

2.2 Anti-competitive behaviour in the Construction Industry

The IAA investigated a number of cartels in the construction industry and its interrelated industries, such as a cartel in the liquefied petroleum gas (LPG) industry regarding the supply of gas to customers who bought new apartments. A cartel between the major pipes manufacturers regarding sewer pipes, and another cartel in which the manufacturing and marketing companies of electricity pipes agreed to fix prices. Another cartel which is considered to be one of the major cartels that the IAA has exposed was a cartel that lasted more than 14 years between the major tile manufacturers. All of these cartels were

prosecuted and their members were sentenced to imprisonment or community services as well as heavy fines. In a different case, the IAA signed a consent decree with the major concrete companies in Israel, regarding the dissemination of price announcements between themselves.

In addition to acting against cartels and horizontal restrictive practices, the IAA reviewed numerous mergers in the construction market and its interrelated industries. Although most of these mergers did not raise any competitive concerns and were therefore approved, in some cases the IAA decided to block or impose remedies where significant competitive concerns were identified. Further, over the past years the IAA took action to protect competition in the local cement market in several instances where anti-competitive conduct was noticed.

2.2.1 *The Tile Cartel*

The tile cartel was discovered by the IAA investigations department in 1997. The cartel was detected in the course of another ongoing investigation, and not as a result of specific complaints. This cartel is considered to be one of the most sophisticated cartels to be discovered in Israel thus far as it involved most of the manufacturers in the tile market. The anti-competitive techniques that were used by the cartel included price fixing and market division between the members of the cartel. Another unusual fact about the cartel was that it lasted for a period of 14 years, up until the IAA started the investigation. In attempt to enhance the stability of the cartel, the companies employed a special economic advisor who monitored each of the companies' activities and verified that the restrictive arrangements were not breached. The advisor was also empowered to impose fines on members of the cartel whenever he detected that a company had breached the cartel agreement. Clearly, the intensive activity of the cartel enforcer was a main reason for the stability of the cartel over the years.

The tile cartel sold its products mainly to construction companies whereby tiles are used as raw materials which are not regularly purchased directly by private end consumers. Nevertheless, in the course of time, the cartel expanded its activities and engaged in price fixing also with respect to retail sales of tiles to private individual consumers.

The indictment included over 25 managers and companies. All of the accused parties were convicted by Court, most of them in plea bargains. The sentences imposed in this case ranged from nine months imprisonment in jail to 4-5 months to be served in community services. The monetary fines went as high as 2.25 million NIS for the larger companies in the cartel.

2.2.2 *The Sewer Pipes Cartel*

The sewer pipes cartel involved the major plastic pipes manufacturers who divided the market between them. The cartel lasted for about 7 years, until it was detected by the IAA. The parties had used a mechanism of price/fine in order to deter one another from violating the cartel agreement. For this purpose the companies engaged in intensive exchange of information in order to detect any instances of breach.

This cartel was discovered inter alia due to complaints by other players in the market.

It should be mentioned that within the same cartel meetings the companies also agreed on dividing the market as well as on price fixing mechanisms in the market of pipes used to accommodate telecom cables, not designed especially for construction.

More than 15 managers and companies were indicted. All accused parties reached plea bargains which included agreed sentences. The District Court decided to deviate from the agreed punishments that were specified in the plea bargain while expressing the view that the sentences were not sufficiently harsh. Some of the convicted parties appealed to the Supreme Court where it was decided to reinstate the original

punishment that was agreed in the plea bargains. Finally, the sentences amounted to a monetary fine of 440,000 NIS (as opposed to 1.2 million NIS that were imposed by the District Court) and 3 months of community service.

2.2.3 The Electricity Plastic Pipes Cartel

The electricity pipes cartel involved some of the largest electricity plastic pipes manufacturers in Israel. In this case the parties formed a joint company that distributed most of their products. The company enabled members of the cartel to fix prices and reach exclusive dealings agreements. One company that was not part of the joint marketing company agreed on selling its products in the price that was fixed by the cartel.

The cartel resulted in a sharp increase of prices in the electricity pipes market (up to 120 %!) and therefore was immediately noted by electricians and constructors who filed complaints. Due to the IAA intervention it lasted only 4 months.

The sentences included 6 months imprisonment to be served as community services and up to 600,000 NIS in monetary fines. The Supreme Court affirmed the sentences following an appeal.

2.3 The LPG Cartel

The LPG cartel involved four dominant gas companies (Pazgaz, Amisragas, Supergas and Dorgas) with an aggregate market share of over 90%. All four companies and 15 of their senior management were indicted with engagement in a cartel activity on a national scale during 1994-1996. The process involved 215 prosecution witnesses and over 30,000 documents containing relevant evidence. The trial against some members of the cartel is still in process and a second cartel trial on a smaller scale is taking place in parallel.

In this large scale cartel the parties divided between them the market of newly constructed houses. The case was brought to Court following an IAA investigation and numerous complaints from consumers as well as competitors.

Three of the four companies that were indicted and their executives have reached plea bargains with the IAA. The fines for the companies ranged between 1.25- 4.04 million NIS per company. Most executives were sentenced to up to 6 months' imprisonment to be served in community services and payment of individual monetary fines of up to 1.25 million NIS. An important achievement of one of the plea bargains is the fact one of the companies' CEO was sentenced to serve 100 days in prison with no option to serve the term in community services.

The severe competition problems which exist in the market, alongside the rich history of cartels, encouraged the IAA to submit to the Knesset's Economic Affairs Committee a comprehensive competitive analysis of the market in 2007. The report included recommendations for legislative amendments that would enhance competition in the market. The recommendations were to prohibit the LPG companies from inhibiting the consumers' ability to switch to a different LPG company, preclude them from unreasonably refusing to provide LPG, require an existing provider to sell all its LPG equipment to a new provider selected by residents of a specific building and impose equal safety requirements (and not harsher) on new entrants to the market. The IAA worked together with the Ministries of Finance, Justice and National Infrastructure to enact the proposed reform into the law. In December 2007, the new legislation was approved by the Committee of Economic Affairs and in March 2008 it took effect.

2.4 *The ready-mixed cement consent decree*

Another case in which the problematic characteristics of the construction market were exemplified was the ready-mixed cement case. In this case the competing companies used to send each other price announcements, before raising their prices. One of the claims raised by the parties was that since there were not so many companies in the market, and since there were times when companies had to cooperate because one company alone could not complete all the work by itself, the parties needed to know the prices charged by their competitors. Since there were not many companies in the market, the IAA's view was that the dissemination of the price announcements led to collusion. A consent decree was reached between the IAA and the parties in which it was agreed that the companies would not circulate price announcements to their competitors. The main reason for reaching the consent decree related to the available evidence. The consent decree also included imposition of a 2 million NIS fine on the companies.

2.5 *Mergers*

A recent relevant merger involves the crane market in Israel that consisted of three companies, one of which is a monopoly. The second largest company decided to exit the crane market and subsequently was acquired by a company who is a monopoly in the transportation market. The competitive concerns that were raised by the merger had to be weighed against an outcome that leaves only two companies in the crane market, one of which already has monopoly power. Subsequently, the IAA has decided to approve the merger under conditions such as the prohibition on the merged company to tie between the transportation services and the use of cranes.

Another relevant case involves the market for melted scrap which is used to produce steel for construction. By the end of 2001, Mifalei Plada Meuchadim Ltd. (hereinafter - MPM) became insolvent and its competitor Yehuda Pladot Ltd. (hereinafter -YP) remained the sole scrap-melting firm in the local market. YP exploited its position as a single firm in the market by drastically reducing the quantity of scrap it collected. In addition, it tried to maintain its status as the sole scrap-melting firm by acquiring MPM melt shop facility in order to shut down its melting operations. The IAA's decision to block the merger was based on the fact that the merging parties were the only two scrap-melting firms in the local market. Following the IAA's decision, a third party entered the market and began operating on a commercial scale, leading to a significant increase in the quantity of scrap collected. YP's appeal over the decision to block the merger was rejected in April 2007 by the Antitrust Tribunal. The Tribunal ruled that the merger would have significantly hindered competition and that the IAA may take into consideration, within its merger review process, the expected effects on potential competition associated with the merger.

2.6 *The cement industry*

The IAA has also been active in the cement industry. In 1989, the single cement manufacturer in Israel (Nesher) was declared to be a monopoly. Ever since, the IAA made use of its authority and gave instructions on several occasions in order to improve the competition at this field, particularly with respect to imports and transportation of cement. It should be noted that in Israel the price of cement is under government regulation, however the IAA has no role in this price regulation.

3. *General lessons with respect to competition issues in the construction industry:*

As noted, the market failures related to the construction market are usually not directly concerned with construction companies but rather with interrelated markets which include mainly suppliers of raw materials and other manufactured products for construction. Several general lessons can be derived from the IAA experience as follows:

3.1 *The end users are usually not directly injured from these cartels*

The common element which is evident in all the cases and examples illustrated here above is the fact that the end users of the products were neither directly involved nor directly injured by the cartel. Instead, the cartels were charging supra competitive prices from the construction companies, who in turn rolled the costs to the consumers (e.g. house buyers etc.). This is perhaps one of the main reasons that cartels are so common in the construction market and its associated industries. The construction companies tend to be somewhat indifferent to the extra costs because they can pass on all these "minor costs" to the end users, the consumers. The customers are usually unaware of the high prices of specific raw materials and hence have smaller chances, to detect the cartel. Meanwhile the construction companies do not carry on themselves the expenses; therefore their incentive to take action against their suppliers is also not so considerable. In addition, due to the fact that these components add to only a small portion (in most cases less than 1%) to the overall total cost of the final product (in this case, an apartment or a house), consumers tend to ignore it as a matter of behavioral bias

For example, in the LPG cartel, a large part of the directly injured parties were the construction companies, who signed the initial contracts with the LPG company (the end users were allowed to switch the LPG supplier only after the first year of supply). Even so, it is assumed that most of the price increase was rolled-on to the end users.

In most of these cases there was no private civil enforcement (such as class actions) following the criminal procedure. This might suggest that the construction companies manage to pass on the excessive payments to the end users so they avoid any substantial harm as a result of the cartel. On the other hand, the customers also do not seem to claim damages from the cartel members thru private enforcement. Perhaps the consumers are not sufficiently aware of the fact that they have been harmed by the cartel, or it might be that they face collective action obstacles or other difficulties such as gathering of evidence. In this aspect it is interesting to note that in the sewer pipes cartel, as mentioned above, the parties also colluded to fix prices and divide the market of pipes used for communication cables – in this case there were no "end users" to which the telecom companies could pass their excessive payments, and indeed the major telecom company filed and was awarded damages in a tort suit against the members of the cartel.

3.2 *Effect of high levels of concentration in the market*

Another apparent reason for the fact that the interrelated markets are a fertile ground for cartels is that the number of players in those markets tends to be small. The lack of numerous players in the market helps the members of the cartel to maintain and stabilise the structure as well as the conduct of the cartel while enforcing its rules on the member parties.

Some of the industries mentioned above have been subject to regulation that created entry barriers and hence facilitated collusion as well as an anti-competitive climate. For example, in the ready mixed concrete case some of the parties have claimed that the government was aware of price dissemination conduct and refrained from intervening, since it was believed to enhance stability and keep companies solvent.

To this end, the privatisation of construction companies, alongside with the reduction in regulation and government involvement, have contributed to the development of competition in the market, however, there is still evidence for types of anti-competitive behaviour that was common in the past.

Finally, an argument that repeated itself in many horizontal cases, in which the IAA was engaged in the construction market, was that the competitors engaged in meetings to prepare and coordinate negotiations with the government and regulatory bodies. The fact that the construction industry along with its interrelated industries are regulated by numerous agencies, could have provided an excuse for

competitors to meet with each other on a regular basis. Such meeting can clearly be a cover for illicit cartels or at least be a facilitating factor that could lead to collusion.

3.3 Further considerations in enforcement policy and handling of cases

A significant challenge with respect to criminal enforcement in the construction market concerns the large number of cartel members in each case. In many of the cases in which the IAA was engaged there were dozens of cartel members. There are considerable implications to handling a criminal case against a large number of defendants, which have to be taken into account. First and foremost, the burden of producing evidence against each and every accused person is enormous. The process is, of course, time consuming and it might lead to lengthy investigations due to the substantial amount of evidence that is required. For instance in the LPG cartel, the trial involved 215 prosecution witnesses and over 30,000 documents containing relevant evidence.

Sometimes the length of the investigation and the overall legal process diminishes the ability to reach deterring punishments in Court, since the element of the time that passed since the offence took place could be taken into consideration. Therefore, the IAA takes a very prudent approach in selecting which and how many cartel members to prosecute, while taking into consideration the time element as well as all other relevant facts and evidence. It should be noted however, that according to the Antitrust Law, any active director, partner or senior administrative employee with responsibilities in the relevant field may also be liable as a party to such an arrangement.

Section 48 provides that "[i]f an offense, as provided by this Law, is committed by a corporation, each person serving in such corporation at the time of the commission of the offense, as an active director, partner —other than as a limited partner — or senior administrative employee with responsibilities in the relevant field, shall be indicted for such offense, unless he can show that the offense was committed without his knowledge and that he took all reasonable steps to ensure compliance with this Law."

Subsequently, the IAA has the power to prosecute senior managers even in the absence of direct proof to their involvement. In such cases, the public interest plays a significant role.

4. Conclusion

To conclude, the IAA experience indicates that in the construction industry, as well as some of its affiliated and interrelated industries, anti-competitive behaviour is more evident and frequent than in other markets. There is reason to assume that the reoccurrence of anti competitive behaviour is at least partly due to the fact that in many cases the end users (i.e. the customers) do not meet "face to face" with the cartel, although they are affected by its adverse effects. Moreover, the excessive price which is charged by the cartel for the relevant products is small in proportion to the overall sum which is paid in housing transactions. Second, the fact that in many market segments there are relatively few companies that provide the relevant services or products facilitates their ability to collude. Third, regulatory intervention in these markets based on the need to set quality and safety standards for certain elements of the construction process as well as for certain products, facilitates collusion and anti-competitive conduct by the companies that operate in the market.

Based on years of experience, the IAA has become aware of several special features of the construction industry. The lessons which were summarised in this report indicate that there are still challenges to competition in the construction industry which require continuation of intensive enforcement and advocacy efforts.

LITHUANIA

1. Construction sector: general overview

Construction is a very important branch of the national industry and could be subdivided into two major sectors – road building and construction of buildings. During the past few years residential construction sector was the fastest growing sector in Lithuania. The real estate business boom, rapid development of urban construction also led to assimilation of huge funds in the sector. For example, in 2007, construction companies performed construction works for LTL 10.9 bn (i.e., 22% on top of the result of 2006). For comparison in 2006 – the value of construction works performed reached LTL 7.88 bn (21.1% more than in 2005) and in 2005 – LTL 5.8 bn (16% more than in 2004)¹.

The volumes of construction of new houses has grown by 32% and reached up to 49% of the entire construction volumes in 2007. For example, in 2007, 3,304 new residential houses with over 9,000 flats were built in Lithuania, i.e., by 27% more than in 2006. The accompanying developments were the growth in the assortment, production and consumption of construction materials. Prices of building materials have dramatically grown up during past few years. Consequently, the prices of residential houses and flats also leaped, mostly facilitated by the activity of resellers on the relevant markets.

Modernisation of roads and the implementation of various EU projects led to assimilation of huge funds in these two sectors². For example, LTL 1.6 bn is the allocation anticipated in 2008 for the development of Lithuanian road network from the Road maintenance and development program resources. It is by 42% more than in the previous year. The major share of the Road maintenance and development program resources of LTL 420.1 million will be allocated for the construction, modernisation and repair of national roads (by 82% more than in 2007) and LTL 338 million will be allotted for road maintenance (by 14% more than in 2006)³.

In comparison with the previous year, the allocations for maintenance of local roads and streets will increase by LTL 100 million, in total anticipated to reach LTL 320 million. This year LTL 239.7 million were allocated as the EU support for transport sector projects. The largest share of the amount, almost LTL 200 million, has been allocated for nine road projects: the reconstruction of main and local roads, the strengthening of road surfaces and the asphalt works of gravel roads. Public procurement tenders remain one of the main mechanisms of funds assimilation especially in road construction sector.

2. Competition environment: peculiarities in the road construction and residential houses construction sectors

For a long time these two important and complex sectors of national economy were heavily regulated. Major State-owned companies each were working mostly in their own regions with nearly all necessary facilities available for their operations. Overall there were 4-6 large road construction companies, around 10 middle size companies and a number of minor operators in the sector. Now there are around 50 companies working in road construction sector. Beside that now there are also 11 State-owned companies of road maintenance working in different regions of Lithuania. Most companies, in particular large and

¹ http://www.am.lt/VI/article.php3?article_id=7288

² <http://www.transp.lt/Default.aspx?Element=IManagerData&TopicID=2&DL=E&UL=>

³ http://www.lra.lt/en.php/projects/eu_regional_development_fundrmdp/3879

medium size companies operate as multi-purpose entities, while small companies mostly specialise in different types of construction works.

The preconditions for the development of free market started emerging following the privatisation of most construction companies. A number of new but small companies appeared on the market starting the process of specialisation in the road construction market. Small or even medium companies started offering subcontracts for various kinds of road construction works. The road construction market has always been and still remains highly concentrated, especially in the relevant market of large scale projects over LTL 1 million. As it was expected large companies were taking over or incorporating a number of various small road construction companies. From the point of view of competition participation in the same tender of various companies having the same shareholders, or even a common Board is controversial.

The regionalism relic from the previous system is still relevant and has led to a significant splitting of the relevant market of road construction which, however, has been caused by a number of objective reasons. Incumbent companies had always had a possibility to operate their own quarries located nearby or in regions of their location. The costs of transportation and lodging of workers have also increased, thus incumbent companies have always been seeking to have their company specialists living in regions where these companies were allocated. Insufficiently available modern technologies of long distant transportation of asphalt also played a role in strengthening the position of large incumbent companies in their respective regions. As a result, incumbent companies have become regular winners of tenders for the large scale projects, with small and medium size companies remaining reluctant to join into joint economic units in order to participate in public procurement tenders.

The residential construction sector should be noted for its relatively fierce competition. On the national scale there are around 200 companies working in this sector including 30 large companies. From the consumer point of view, there is a number of factors determining the consumer choice in residential houses construction sector. The main among them are, undoubtedly, location and the quality of construction works and advertising on various advantages of residential houses as well as the actual price of the real property. Price and quality are the two crucial factors in the relevant residential construction market. The ultimate choice of the consumer is finally determined by the price - quality ratio. Strict quality requirements, customer needs and preferences vary to a large scale, and due to a relatively strong competition consumers still have rather large choice of possible products in the relevant residential houses construction market.

3. Approach to the market definition in construction industry

For the purpose of investigation the relevant markets, the residential construction sector could be defined on the basis of the needs of customers that are related to possibilities to acquire a real estate property, taking into account the substitutability of products offered for customers, for example: the relevant market of standard residential houses; the relevant market of luxurious residential houses (duplex apartments, mostly with garages); the relevant market of small residential houses (mostly duplex) etc. Also there is separate relevant market of finishing of houses in buildings construction sector as well as the relevant market of finishing materials and the relevant market of installation and maintenance of various infrastructure (e.g. the relevant market of installation, maintenance and exploitation of heating units; the relevant market of installation and maintenance of sewage systems, etc.). The latter two relevant markets were defined in the two recent cases of bid rigging investigated by the Competition Council of Lithuania in the relevant market of residential houses construction⁴.

⁴ <http://www.konkuren.lt/english/antitrust/other.htm>

Obviously if investigation of bid rigging is related to road construction or building materials the relevant markets of road construction materials or buildings construction materials must be defined for the purpose of the investigation. The same concerns other specific works or services related with road construction or building construction sectors.

For the purpose of investigation the relevant markets in road construction sector could be defined according to the importance, purpose and size of roads - the relevant markets of local, regional or national roads as well as according to the scale of paving works - the relevant market of large scale projects over LTL 1 million, and the relevant market of projects under LTL 1 million. Such approach also was reported by Robert Porter & J. Douglas Zona⁵. The relevant markets of road repair and maintenance may be required to be defined according to the specific works. For example, within the road construction sector there is separate relevant market of road marking which was also defined in relation to the bid rigging investigation conducted by the Competition Council of Lithuania in the road construction sector.

4. Entry into the relevant markets

Entry into the relevant residential houses construction market is relatively easy due to huge demand and the booming construction works market. There are some entry barriers into the road construction sector - large transportation costs and significant investment costs, but they are rather few. For a company to enter this market it will need the essential facilities (quarries, plants for production batch concrete and asphalt) which ordinarily are controlled by incumbent companies. Also it is even more difficult to enter the relevant market with a strong incumbent company locally operating all necessary facilities. For that reason, there were very few foreign road construction companies (e.g. Lemminkäinen Group) that entered the relevant regional geographic markets in regions where local incumbents were relatively weaker.

As it has been determined during investigations of large scale projects in the road construction sector the entry barriers are significantly higher than in smaller scale project sector, with projects under LTL 1 million prevailing, as major operators therein face virtually no competition from any outside market operators.

Strict qualification requirement for participants started to play an extremely important role in project tenders specifically with the appearance of large-scale projects (e.g. “Via Baltica”, etc.) – e.g. a requirement for participant to have certain large volumes of works performed in the past in Lithuania. This requirement substantially restrained possibilities for small and even medium size companies to participate separately in tenders, except through forming common economic units specially incorporated for participation in tenders. But most medium size and small companies still remain reluctant to submit any joint bids in large tenders and prefer to operate mostly as subcontractors to big ones. This trend has specifically made itself evident in the relevant market of road marking. For a long time the sector was dominated by 2 large companies and a number of small operators that naturally had no possibility to have long-time experience or a record of any large scale related projects implemented in Lithuania.

5. Selected aspects of investigations of tenders in the construction sector

The forensic analysis of bids for tenders in construction sector allowed the competition authorities to reveal certain easily discernable trends of strategies of potential bid riggers. The investigation revealed various similarities and coincidences between bids presented by groups of bid riggers. The most frequent factor often established in bids is the presence of various multipliers in whole or in a part of bid. Generally, there are two types of most frequent kinds of estimates of tender bids – either estimates differ to a very

⁵ Robert Porter & J. Douglas Zona, “Detection of Bid Rigging in Procurement Auctions,” 101 Journal of Political Economy 518 (1993).

large extent, or they are very similar. The latter type of calculation is more frequent. Companies have repeatedly been referring to the strong competition in the roads construction market which is rather small, wherein everybody knows prices of building materials and having sufficient experience can easily evaluate possible costs of upcoming prospective tender project, therefore the calculations of bids result very similar.

Rather frequently construction companies explain such similarities and coincidences by the fact that for calculation of bid estimates they use identical software programs. There is a limited number of specific software alternatives available in the market usually used by companies working in construction sector. These programs use installed set of price lists of construction materials (current schedule of prices). Companies allege that theoretically it is possible while calculating independently to obtain very comparable estimates, where independent engineers working with the same program can fix the same standard valuations of materials and works from the standard set of price lists installed into the program.

The forensic analysis of bids in a case carried out in the relevant market of installation and maintenance of sewage systems showed that such cases in principle are impossible in view of a number of subjective and objective factors. Companies would in any case have a chance to acquire building materials or installation at lower prices than their competitors especially that some companies operate own facilities in regions of their allocation.

In case of an agreement between bid riggers to prepare shadow bids relying upon a program facilities the comparison of bids presented to the same tender often show various multipliers shared by the potential tenderers. Such multipliers also appear if companies exchange opt to calculations and use estimates of competitors as the template for their own calculation.

Construction companies often explain that other type of calculations of bids in view of very different estimates result in cases when one company tries to win a tender in a region of other incumbent construction company, since having summarised all additional costs the final bid submission is much higher.

The investigation also dedicated part of its efforts to assess the extent to which large incumbent companies can raise estimates in their bid calculations. First, large incumbents try to use their advantageous position and act being guided by a presumption that small and medium size companies even submitting joint bids, in view of the economies of scale, lack of experience, scarce resources and many required subcontracts from other companies etc. will not be in a position to perform identical works at price. As a matter of fact, such companies not infrequently submit bids with even higher prices, knowing that the incumbent companies in their regions always somehow try to increase bid prices while calculating estimates but still within the extent securing the tender for them. The next step in order to further raise bid prices - to come into an agreement with some small and medium size companies on shadow bids with high bid prices or at least to eliminate those companies from tendering by a number of ways including promising them subcontracting on attractive terms. Such system has led to a situation where either only one large company participates in a tender, or other participants (bid riggers) present only shadow bids with higher bid prices. The overall outcome of the trends described above is that there is no apparent visible bid rotation in such bid rigging schemes that was also reported by Robert Porter & J. Douglas Zona⁶.

⁶ Robert Porter & J. Douglas Zona, "Detection of Bid Rigging in Procurement Auctions," 101 *Journal of Political Economy* 518 (1993), p. 4.

6. Statistic approach to investigation of tenders in the construction sector

The construction sector is marked for its huge number of on-going tenders. Investigation of cases nearly without exception are initiated on the basis of complaints lodged both by tendering companies and authorities supervising tenders. Statistic analysis was chosen as an appropriate method to determine and to assess the prevailing trends in tendering process and detect possible bid rigging in the tendering procedures. Investigations of tenders in the relevant road construction market revealed notable differences in the position of large companies and small and medium in terms of participation in the tenders. The analysis determined 4 large incumbent companies that act as regular tender participants with the same satellite companies that are never awarded any tender.

In such cases it is true to say that the 4 groups of companies allegedly rigging the tender bids normally have a leader within the group – one of the 4 largest incumbent companies. The same scheme has been described by Robert Porter & J. Douglas Zona⁷. Results also showed that in most cases large general contractors work with few layers of small contractors and subcontractors which as usual were the same permanent satellite companies. The same scheme in the construction sector has been described by K.Reeves⁸.

Market investigation, inquires and analysis carried out in the relevant road construction market also allowed a certain generalisation of the investigation results. Statistical analysis of 166 tenders arranged during 1999-2004 showed that the same 4 large incumbent companies (i.e. the 4 groups of incumbent companies) have been awarded the tenders on 122 occasions (73.5%) and other companies – on 44 times (27.5%). The same ratio of approximately 70% and 30% was determined in a long term period in each of the year during 1999-2004.

Tenders submitted by the said 4 large incumbent companies (i.e. 4 groups of incumbent companies) accounted for 34-40% of the bids in all tenders announced on the national scale. Similar observations have been reported by Robert Porter & J. Douglas Zona⁹. Reported mechanism of joint bids as the main method of market allocation was only one possible kind of such allocation. Results showed that there is no need to make joint bids for allocation of market in tenders - it is sufficient to regularly participate with the same group of bid riggers. The most popular instrument of the allocation of a market is presenting shadow bids in tenders in order to support permanent group of bid riggers and thus to raise bid price. As it was shown in the cases investigated by the Competition Council in the market of installation, maintenance and exploitation of heating units - the allocation of a market has been attained on the basis of specialisation of the tendering companies.

7. Selected findings of the statistical analysis of tenders in the road construction sector

The results of the statistical analysis of bids in tenders can give very interesting material for prospective investigation and can indicate the relevant markets characterised by a huge potential for bid rigging. Statistical analysis of the total values submitted by each of the same determined 4 large incumbent companies have won in all tenders arranged in the relevant road construction market during 2000-2001 showed a high correlation. The results of the 8 largest international tenders for projects over LTL 20 million (total value of the projects was LTL 187.1 million) for the same 4 large incumbent companies

⁷ Ibid, p. 7.

⁸ K. Reeves, “Construction Business Systems in Japan: General Contractors and Subcontractors,” 30 *Building Research & Information* 413 (2002).

⁹ Robert Porter & J. Douglas Zona, “Detection of Bid Rigging in Procurement Auctions,” 101 *Journal of Political Economy* 518 (1993), p. 13-14.

during 2000-2001 showed distribution of wins as 3-2-2-1. No other road construction companies nor independently nor with joint bids with other medium size companies did not even try to participate in these tenders. The findings of the statistical analysis of total sums that each of the same 4 big incumbent companies have won showed high correlation (around +1).

The results of the statistical analysis of total sums that each of the same 4 said large incumbent companies has won tenders over LTL 20 million arranged in the road construction market during 2004 with the total sum of LTL 144 million showed high correlation (up to +1).

Construction companies in that case often claim that, on the one hand, it is very hard to win a tender announced in or close a region of residence of other strong incumbent competitor and on the other hand, in case they are announced winners of any other major tender, they would not be able to do more road construction works.

Similar situation of correlation between the same 4 large incumbent companies were determined likewise in tenders in the relevant market of regional roads during 2004. The total value of the projects implemented under the 17 tenders over LTL 1 million in the said relevant market during 2004 was LTL 70 million. The four major incumbents participated in the tenders either independently, or in conjunction with their permanent satellites. Bid submissions to the 17 tenders were also received from a limited number of other participants.

The results of tender awards in these 17 tenders of each of said 4 large incumbent companies while participating independently showed very high correlation. And results of the wins in the 17 tenders of the same 4 said large companies together with their permanent satellites in the 17 tenders also showed very high correlation.

The results of the statistical analysis of total sums that each of the same 4 large companies has won separately in 17 tenders showed high correlation (around +1). The same high level of correlation was shown and for total sums that have been won by said 4 large companies while participating together with their permanent satellites. Correlation between said 4 large companies and their satellites was not high but the correlation between satellites of said 4 large incumbent companies has shown the same result of high correlation (up to +1). Determined correlation with other independent participants in 17 tenders was very different and dependent on scale of project and other factors.

The statistical analysis of 9 tenders announced in the relevant road marking market during 1999-2004 (total value LTL 109 million) showed the distribution of wins according to the total sums of tender projects of 2 large incumbent companies as 71%, 23% (6% for other companies), as well as a significant scattering of correlation. But the analysis of large scale long term contracts in 4 tenders during 2002-2004 showed that the tenders were awarded to only 2 largest incumbent companies with a result of 50% and 50% and showed very high correlation (around +1). Thus this change in correlation could be an indicator of possible beginning of the bid rigging process.

Thus the findings of the statistical analysis showed that the more similar or close correlation between bidders is – the higher is the possibility and the probability of a bid rigging in the tender. The results of the forensic economic analysis have disclosed certain easily discernable trends of possible bid riggers participating in the tenders. Statistical analysis showed very high correlation (around +1) between bids that have been won by the large construction companies. This might be an indicator of possible strategy of groups of bid riggers in tenders with the view of distribution or allocation of the relevant market. High correlation in distribution and allocation of successful tenders and total sums shows possible strategic planning of allocation of participation of groups of the bid riggers in the tenders thus seeking to maintain

their stable position in the relevant markets. In this case the overall analysis would significantly benefit from an analysis of the stability of market shares of bid riggers in the long-term period.

Moreover, a sudden change of correlation also could be interpreted as a possible indicator of the beginning of the bid rigging process in the relevant markets. Coincidences in distribution and allocation of successful tenders in the course of an extended period of time may indicate some problems in certain markets.

RUSSIAN FEDERATION

1. Market definition

FAS Russia in 2007 conducted an analysis of newly erected residential real estate in order to perform competition study in the construction industry. Market borders for this study were defined as newly erected residential real estate in the apartment buildings in the following segments:

- bearing-wall houses;
- houses made out of brick;
- houses made of brick-monolithic.

At the same time geographical borders were defined as borders of settlements (cities) with population of more than 100 thousand inhabitants.

According to FAS Russia similar studies can be done in the following industries: on the market of production of construction works (except residential real estate); provision of construction works on road building; provision of construction works on bridge building. At the same time, it is important to consider not only construction work on building of new estate, but also to consider volume of works done on refurbishment and reconstruction of the certain objects.

Geographical market borders are defined as administrative borders of the Russian Federation.

2. Market concentration

In the Russian Federation most of the construction organisations both large and small should obtain a license for their business. After analysing construction market there wasn't found any company that had dominant position on the market.

Evidence received during market study show that market share of economic entity is changing annually and many new entrants come to the market. In different cities level of market concentration is different, but usually construction markets can be characterised as low-concentrated or medium-concentrated.

3. Barriers to entry

While studying market of realisation of newly erected residential real estate by the economic entities, following factors creating barriers to entry were mentioned:

- Economic
 - Necessity of considerable initial investments at the moment of entering the market in order to purchase needed machines, equipment, financial and labour force and other, while the pay-off period is really long;
 - Higher costs of attracting financing for the potential participants comparing to the economic entities, already working on the market.
- Administrative

- License is needed for all construction activities, including accomplishment of installation and construction, construction related, decorative, sanitary-engineering, special and erecting work;
- According to the existing Land and Town-planning legislation tenders are needed in order to acquire land for construction;
- Control and supervision executed by state and local authorities during the construction process and also at the moment of plant handover to the State acceptance commission.

Overcoming of economic barriers is possible if there is needed financial stability of the economic entities – participants of the market.

Participants of the market consider these economic and administrative barriers considerable but manageable.

The main problem for competition development on the market of realisation of newly erected real estate is lack of volume of construction of residential real estate, due to the lack of formed land parcels for residential real estate and lack of the amount of land tenders.

4. Prone to collusion

FAS Russia conducted inspection on existence of price collusion between construction companies under realisation of newly erected residence real estate realisation on the territory of Moscow, Saint-Petersburg and Moscow Region.

Results of the erected residential real estate market of Moscow and Saint-Petersburg analysis show that there is no dominance on the market, and that this market is quite competitive.

Market analysis conducted on the market of newly erected residential real estate in Moscow Region and Saint-Petersburg shows that there are no price collusions on the market of realisation of the residential real estate. Received information shows that price rising during the past periods wasn't done simultaneously and on the same amount.

Thus the inspection showed that considerable excess of the realisation price comparing to the costs on construction and also rise of the prices on the market of newly erected residential real estate is a result of disbalance between demand and supply.

Deficit of supply and previously existed non-transparency in the distribution of land parcels and right for reconstruction, done without application of tender system are the main reasons for a considerable rise of prices on real estate.

SOUTH AFRICA

1. Introduction

The South African construction industry has recently been experiencing a boom, underpinned by government's spending on infrastructure to achieve economic growth of 6% by 2014, as well as the building of stadiums in preparation for the 2010 FIFA World Cup. The construction industry makes up about 3.8% of South Africa's Gross Domestic Product (GDP). Recently, competition authorities in South Africa have raised concerns that increasing prices of construction services and materials, which could be a result of high levels of concentration, are increasing the costs of government's infrastructure projects and of the stadiums.

Of all cases involving the construction industry that the competition authorities have adjudicated upon, the majority were merger cases. However, there is a concerted effort to increase the number of enforcement cases¹.

This paper therefore draws from a number of major cases that have been decided by the Competition Tribunal in the recent past, which include:

- Group Five construction (Pty) Ltd/Quarry Cats (Pty) Ltd;
- Murray & Roberts Limited/Concor Limited;
- Murray & Roberts Limited/Oconbrick Manufacturing (Pty) Ltd;
- Murray & Roberts Limited/ The Cementation Company (Africa) Limited;
- Murray & Roberts Limited/Wade Walker (Pty) Ltd;
- Group Five Construction (Pty) Ltd/TJ Ross Properties (Pty) Ltd;
- Nation Builders Worldwide (Pty) Ltd/Woestalleen colliery (Pty) Ltd;
- Aveng Limited/LTA Limited.

The paper bases its discussion of the issues of market definition, concentration levels, barriers to entry and possible collusive tendencies on the conclusions reached in these cases. Also, a case study on the building of stadiums for the 2010 FIFA World Cup is presented as an example of project cost overruns.

¹ In early 2007 the Competition Commission of South Africa created an inter-divisional team to conduct a study of the construction materials and services industries.

2. Market definition

The approach adopted by the competition authorities in defining relevant markets is predominantly based on the activities of the firms involved. The markets have tended to be delineated into the following categories: building construction, mining contracting, civil engineering, general engineering, road construction, and facilities management services. Some of these categories are further broken down into sub-markets, for example, building construction is further divided into public, commercial and residential construction; mining contracting into open cast and underground mining; road construction into new road construction and road rehabilitation. The argument advanced by the players in these markets, which the competition authorities generally have accepted, is that the different categories of activities require different skills, personnel, machinery, resources and equipment.

Furthermore, the size of the project has also been used to further define markets within the different categories. For example, in the large merger between Aveng Limited and LTA Limited, a distinction was made between small, medium and large projects. It was contended that in large projects stricter conditions are set by clients than in small projects, for example, requirements for a strong balance sheet and a good track record.

3. Market concentration

The Tribunal has previously approached the construction industry as a “classical bidding market”. Market shares in such a market will tend to be transitory in nature, given that contracts are usually temporal in their duration. However, there is a regulatory dynamic that has affected the number of players who are able to bid for certain projects, therefore has indirectly led to high concentration levels. The South African construction industry is characterised by a handful of large construction firms, who are active in some or all of the categories mentioned above. There are other small companies that are either active in niche markets or in the fringes of the mainstream market.

The industry is regulated by the Construction Industry Development Board (CIDB), which sets the rules in terms of tendering for different projects. The CIDB rates contractors according to certain criteria and registers them in 20 categories and nine grades based on track record, area of expertise, turnover, credit and bank ratings. For example, a Grade 1 contractor can handle projects of under R200 000, a Grade 5 contractor is expected to be able to handle projects between R300 000 and R500 000, a Grade 8 contractor can handle projects between R30 million and R100 million, and the highest rating Grade 9 is reserved for contractors with “unlimited” capability.

The high concentration of the construction industry has led government to consider awarding some of its contracts to foreign contractors. In fact, government contracts are awarded to contractors listed in the Register of Contractors that lists both South African and foreign companies.

Concentration in the construction industry is also characterised by vertical integration of the few larger South African contractors backward into the input materials level (such as bricks, cement and aggregates). This complicates the involvement of foreign contractors in the South African market, as these companies need to procure their materials from within the country due to high transportation costs associated with these products.

4. Barriers to entry

The barriers to enter the South African construction industry are quite high. In addition to the ones already mentioned (regulatory barriers and the extent of vertical integration), the industry is also faced with a dire shortage of specialised skills, such as engineers.

As already mentioned, the industry is regulated by the CIDB, and according to regulations a contractor is required to meet a certain financial capacity in order to bid for tenders of a specific value. For example, a construction company is considered capable of performing a project valued at R100 million or more if it recorded an average annual turnover of R78 million or more over the last two years and has a record of performing on projects valued at R26 million or more in the past five years. Furthermore, the company must have net assets valued at R19.5 million.

In addition to the stringent financial requirements, companies need to also demonstrate their capacity to handle projects with regard to their human resources. The regulator stipulates the number of part-time or full-time employees with very specialised skills in the contractor's employ to handle certain sized projects. For example, for civil engineering projects valued at R100 million or more, two permanent employees with relevant qualifications must have been employed and for electrical engineering, mechanical engineering or special works valued at R100 million or more, three qualified employees must have been employed.

South Africa has a serious shortage of engineers, technologists and technicians. There are estimates that the shortage stands at about 6000 additional engineers required to meet short-term needs. It is reported that about 95% of local contractors are struggling to fill positions as a result of this shortage. The larger contractors usually provide financial sponsorships to train potential employees, who are then contractually tied to the companies at the end of their training. This makes it harder for smaller players to attract skilled labour and to meet regulatory requirements.

There has been a number of mergers in the construction industry that have resulted in some of the larger contractors backwardly integrating into input markets such as bricks, cement, aggregates and ready-mix concrete. For instance the Group Five (Pty) Ltd/Quarry Cats (Pty) Ltd merger involved one of the larger construction companies acquiring a company that quarries and supplies aggregate products and ready-mix concrete. The extent of the vertical integration not only increases barriers to entry, but also increases the possibility of coordinated conduct as it creates platforms for information sharing.

5. The nature of cases

In 2007 the Competition Commission of South Africa identified possible anti-competitive behaviour in the construction industry as a priority. This shift has largely been informed by major infrastructure investment planned by the government of South Africa, which is budgeted at approximately R415.8 billion over three years. Furthermore, the recent uncovering of construction cartels internationally (for example in the UK and the Netherlands), has bolstered the Commission's resolve to focus resources into enforcement investigations in the construction industry.

6. Susceptibility of the industry to collusion

The Competition Tribunal has previously approved mergers in the construction industry on the basis that the relevant markets are "classical bidding markets", characterised by lumpy projects and therefore ex ante market shares are not reflective of market power. For example, the Murray & Roberts/Cementation merger was approved, although this was a 3-to-2 merger in the market for the provision of mining infrastructure. However, the Tribunal did not rely solely on the bidding market premise, but also examined the transaction on the basis of the other mainstream factors for market analysis, such as barriers to entry, likelihood of collusion and countervailing power. Indeed, the uncovering of the wide-spread practice of "cover-pricing" in the UK construction industry bears testimony to the need for close scrutiny of these markets

There is a vast body of literature that provides check lists on how to determine whether a market is prone to collusion. On the basis of such a check list, the South African construction industry seems to be susceptible to collusive conduct, for the following reasons:

6.1 *Vertical integration of construction companies*

The major construction companies in South Africa are vertically integrated into infrastructure and construction materials, such as bricks and aggregate products. This increases the possibility of information sharing, as the construction companies are not only competitor but also enjoy each others' custom.

6.2 *High concentration levels*

The construction industry is dominated by a handful of large contractors that can handle larger projects. The rest of the remaining projects are shared amongst a reasonable number of smaller firms.

6.3 *High barriers to entry*

As mentioned, the construction industry in South Africa is characterised by high entry barriers, they include regulatory requirements, shortages of specialised skills and high capital outlays are necessary to increase capacity to the level of the larger players in the industry.

6.4 *Joint ventures*

There is an increasing trend of contractors forming joint ventures to bid for larger projects. Industry players argue that joint ventures are a risk-reduction mechanism where large complicated projects are concerned. However, of interest is the phenomenon of the larger, well-established contractors (with a CIDB Grading 9) forming joint ventures, whereas the expectation is that the joint ventures should be prevalent amongst the smaller players with poorer ratings. It seems possible that these joint ventures are used to allocate markets.

7. *Types of collusive activity*

On the basis of this information the Competition Commission is investigating the suppliers of steel and aggregates. A leniency application involving concrete products was received during 2007 and is also under investigation. All these cases involve allegations of collusive conduct where cartels have been formed to facilitate price fixing, market allocation and collusive tendering in specific products within the construction industry. However, in the absence of a leniency applicant the conduct is not easily detected due to the secret nature of cartels.

There have also been instances of abuse of dominance where major players limit supply by entering into exclusive deals, by refusal to supply an input, or other exclusionary practices that extend dominance downstream.

Through mergers and acquisitions investigations, indications are that in the past few years the industry has been consolidating its activities. Some of the big merger investigations include the major construction companies e.g. Murray and Roberts and Group Five Construction.² The major players have acquired various aspects of their business making them vertically integrated and in some instance firms have entered

² See cases decided at www.compcom.co.za

into joint ventures for big projects. This suggests opportunities for firms to interact and this is facilitated by a high degree of transparency in the industry.

However, there is no conclusive evidence to suggest that the anti-competitive behaviour under investigation is more widespread than in other industries. As mentioned earlier, the CCSA's investigation into construction is still at its initial stages and more could still be undetected as yet. Through the corporate leniency policy of the CCSA it is expected that over time more and more applicants will come forward with information on the industry.

8. Enforcement approaches and case management

At this stage the CCSA has not finalised any cases in the construction industry. However the CCSA has investigated and prosecuted a number of cartels in other industries e.g. bread, health, milk and scrap metal. The approach in each of the investigations has been on a case-by-case basis. Cartels in general are considered to be the most serious offenders and the CCSA is currently considering the highest fines in prosecution and an admission of guilt by offenders where a settlement is reached.

9. Cost overruns – 2010 FIFA World Cup Stadiums Case Study

9.1 Competition concerns in the construction of the 2010 FIFA World Cup stadiums

As part of the infrastructure project, the Commission is undertaking a study to better understand the factors under-pinning the increased costs of the 2010 FIFA soccer World Cup stadiums. In a confidential report submitted by the Development Bank of South Africa (DBSA) to the minister of Sports and Recreation, it transpired that the total cost of building the FIFA 2010 stadiums has increased drastically from the initial total budget estimates submitted by the South African Football Association (SAFA) in the bid for hosting the 2010 World Cup to the actual budgets requested by the municipalities in 2006³. These differences or changes in costs are shown in Table 1. The table includes the total budget estimates for new stadiums as well as refurbished stadiums. It must be noted that in the bid document the number of stadiums to be used during the world cup was estimated to be thirteen, but by October 2005 the number had been reduced to twelve. However, the actual number of stadiums currently being built and refurbished totals ten. Tables 2 and 3 show the increases in total stadium costs from 2003 to 2006 for new stadiums and refurbished stadiums respectively.

Table 1: DBSA'S consolidated capital costs for the construction and refurbishment of FIFA 2010 stadiums

	SAFA bid document 2003 (ZAR)	DBSA Preliminary cost review Oct 05 (ZAR)	Requested budget Aug 06 (ZAR)
Total new	677,400,000	1,995,000,000	7,422,210,667
Total refurbish	334,400,000	925,000,000	2,346,961,240
Other*	586,086,000	770,000,000	
Total	1,597,886,000	3,690,000,000	9,769,171,907

Source: 2010 FIFA World Cup Venues: analysis of stadia design, cost estimates and business cases.

Notes:

Preliminary cost review Oct 05 is VAT inclusive and Requested budget Aug 06 is VAT exclusive.

Other* in the SAFA bid document 2003 is for three of the thirteen stadiums that were proposed at that stage.

Other* in the Preliminary cost review Oct 05 is for the two of the twelve stadiums that were proposed at that stage.

³ 2010 FIFA World Cup match venues: analysis of stadia design, cost estimates and business cases.

From Table 1 above, it is interesting to note that the percentage difference in the total cost of the stadiums between the 2005 cost estimates and the 2006 budget requests by the municipalities is 164 percent, particularly because the time difference between the cost review and the actual requests is 10 months.

Table 2: Summary of budget increases for new 2010 stadiums

Stadium	SAFA bid document 2003 (ZAR)	DBSA	
		Preliminary cost review Oct 05 (ZAR)	Requested budget Aug 06 (ZAR)
Moses Mabhida	61,300,000	380,000,000	1,893,607,000
Green Point	16,400,000	520,000,000	2,961,473,000
Mbombela	205,400,000	325,000,000	904,452,970
Nelson Mandela	206,800,000	470,000,000	963,040,125
Peter Mokaba	187,500,000	300,000,000	699,637,572
Total New	677,400,000	1,995,000,000	7,422,210,667

Source: 2010 FIFA World Cup Venues: analysis of stadia design, cost estimates and business cases.

Table 2 shows a marked difference in total cost for new stadiums from the October 2005 cost review by the DBSA and the actual budget requests. The percentage difference is 272%.

Table 3: Summary of budget increases for refurbished 2010 stadiums

Stadium	SAFA bid document 2003	DBSA	
		Preliminary cost review Oct 05	Requested budget Aug 06
Soccer City	222,500,000	570,000,000	1,565,752,100
Ellis Park	39,200,000	200,000,000	267,052,632
Rustenburg	12,800,000	30,000,000	141,700,000
Mangaung	42,800,000	95,000,000	283,408,896
Tshwane	17,100,000	30,000,000	89,047,612
Total refurbished	334,400,000	925,000,000	2,346,961,240

Source: 2010 FIFA World Cup Venues: analysis of stadia design, cost estimates and business cases.

Table 3 reveals a similar pattern for refurbished stadiums. The percentage difference between the cost review and budget requests amounts to 153%.

According to the DBSA, the increase in costs could be attributed to the onerous stadium designs undertaken by the municipalities, and the creation of permanent structures instead of temporary ones for items such as media centres, offices, and hospitality areas. However, in a meeting with the National Treasury's 2010 division, the Treasury expressed grave concerns about the high construction costs of the 2010 stadiums. These concerns were reiterated by various municipalities, such as Johannesburg City, City of Cape Town and eThekweni.

The Commission seeks to establish whether bid rigging and excessive pricing could have contributed to these cost overruns in the construction and refurbishment of 2010 FIFA World Cup stadiums.

CHINESE TAIPEI

1. Introduction

The booming of the construction industry represents an indicator to the economic prosperity of a country; it brings quite important impacts to the economic development of a country and affects the upstream and downstream industries related to the construction industry greatly. The construction industry in Chinese Taipei has played a fundamental role in the process of economic development. As this industry is a labour-intensive industry, which provides technology services and management, the majority of the construction enterprises in Chinese Taipei are small and medium sized businesses.

Pursuant to Article 3 of the Construction Industry Act, the term “construction enterprises” are referred to as the manufacturers registered at and licensed by central, municipal and county (city) competent authorities to undertake construction and repair works. The construction and repair works means civil engineering and construction works as well as their related operations. In addition, Article 6 of the same Act states, construction enterprises are classified into comprehensive construction enterprises, specialised construction enterprises and civil engineering contractors. These three types of the construction enterprises are detailed as follows:

- Comprehensive construction enterprises (so-called “general contractors”): They are divided into three grades: A, B, and C and the conditions required for the respective establishment of grade A, grade B and grade C comprehensive construction enterprises are that a founder must have at least a certain amount of capital, i.e. 22.5 millions New Taiwan Dollars (NTD), NTD10 millions and NTD 3 millions for grade A, grade B and grade C comprehensive construction enterprises respectively.
- Specialised construction enterprises: Those enterprises engage in professional construction works, for examples, steel structure works, soil-retaining & supporting and earthworks, foundation works, construction tower scaffold and shelf hoisting and moulding works, premixed concrete works, construction drilling works, underground pipeline works, curtain wall works, garden and landscape works, environmental protection works and waterproof works.
- Civil engineering contractors: The enterprises operate small-scale comprehensive construction and repair works.

The construction and repair works or specialised works contracted by a comprehensive construction enterprise may be subcontracted to specialised construction enterprises unless the comprehensive construction enterprise can perform the construction by itself, and the comprehensive construction enterprise and specialised construction enterprises shall assume joint and several liabilities for the subcontracted works.

The Table of the Domestic Industry Correlation shows that construction services provided by the construction industry can be divided into four categories, such as housing works, other housing works, public works and other construction works. The four categories includes activities relating to construction and extension of a residential building, other housings as well as their ancillaries, installation of water and

electricity inside and/or outside of above-mentioned buildings, and construction and repairs of each type of public utilities works.

As for the cases handled by the FTC related to the construction industry, the FTC mainly focused on the competition issues related to public construction, especially the issue that members of the construction industry actually engage in cartel activities orchestrated by a networking association (similar to the trade association). Therefore, this contribution will briefly introduce the issues regarding market definition, barriers to entry and types of collusive activities by taking the public construction services as an example and then reports two cases concerning the asphalt excavation enterprises' involvement in concerted actions in violation of the Fair Trade Act.

2. Market Definition

The definition of relevant markets in construction industry includes also the definition of both the geographic market and product market. With respect to the bidding of individual public construction, the FTC believes that the competitiveness of individual enterprise for construction bidding projects, and regulations for the enforcement of tendering procedures of government authorities issuing projects should be considered due to the specific characteristics of individual work, which could be regarded as the elements for the definition of the relevant markets. In practices, depending on circumstances, the competition authority can integrate each invitation bids adopted by the same authority issuing projects as the relevant market, or regards individual bidding project as a "special-case market."

3. Barriers to Entry

The elements causing barriers to entering into the market of the construction industry are explained as follows:

3.1 Influences of Laws, Regulations and Policies

In order to ensure the quality of construction and repair works, laws and regulations related to the construction industry, ranging from the establishment of companies, business undertakings to manufacture procedures of products, has greatly restricted and affected the operation of construction industry. Take the comprehensive construction enterprises as examples. All construction enterprises are divided into three grades: A, B, and C; upgrading from a lower grade to a higher grade will be subject to the limitations of passing the thresholds of business accomplishments, engineering performance and appraisal requirements respectively. In addition, each construction firm can only undertake and operate the business with an issued license and within the scope approved by laws and regulations. It must not overstep or arbitrarily set foot in businesses that are not construction-related. In the same way, before it can proceed with a construction work, it must acquire licenses or permits from related agencies to start, continue to proceed, and finish the construction work.

Furthermore, the operation of comprehensive construction enterprises or specialised construction enterprise is subject to the requirement of employing full-time engineers or technicians. Engineers or technicians who are not employed on full-time bases will be regarded as temporary employees and the employing enterprise will be prohibited from operating the business. Similarly, apart from the operation of civil engineering contractors in the municipal and/or county (city) areas where these civil engineering contractors are registered, the contractors can only conduct businesses in the areas adjacent to the areas where they are registered. It also will affect the definition of geographic market.

As for the establishment of foreign construction enterprises in Chinese Taipei, foreign construction enterprises are non-discriminated, basically. Before a foreign construction enterprise can engage in related construction businesses, it must handle the registration of its enterprise simply by complying with the

Company Act and Business Registration Act, as well as registering its practices according to the Construction Industry Act.

Governmental policies affect the business cycle of the construction industry vary greatly. Due to the fact that the growth of the construction industry is closely associated with the demands for public construction, whose occurrence for the past several decades were quite unevenly spread over a certain time periods such as when the ten major construction projects and six-year national construction were in progress, enterprises in this industry might experience sudden boom followed by abrupt shrink of business. It is difficult for the construction industry to maintain stable developments when demands in this industry are unpredictably in fluctuation.

3.2 *Characteristics of the Products*

Each product in the construction industry needs to exhaust a great number of manpower and financial resources and all of these products are unique and independent from other products. Even if the products of the majority of the construction works are similar among themselves, they will not be identical to each other, at least the places where these products are constructed will be different. In the same way, even if two structures are designed identically, the products of the construction works will all have their uniqueness due, for example, to different workers, places and other uncontrollable factors. Products diverseness will reflect government authorities' preferences to contractors' reputation, additionally.

3.3 *Scale of Economies*

Cost advantages, irrespective of credit lines or the interest rates of loans, may cause barriers to entry. Large-scaled enterprises or enterprises with good business performance could enjoy more advantageous status than other enterprises.

3.4 *Technology Availability*

Due to the diverseness in the technology standards of enterprises, the government authority will consider the technology standard of contractors, and this situation may cause entry barrier. The so-called "technology availability" means the possibility of an enterprise to acquire technology sufficient to undertake a particular case. Apart from representing construction technology, technology availability includes integrated management knowledge. There are three ways to acquire such technology: 1. accumulation of experiences from previous construction; 2. achievements reached by research and development; 3. technology cooperation with other enterprises, such as joint venture or technology transfer. To sum up, technology availability is an important factor to distinguish the construction market.

In conclusion, entry barriers of the construction industry derived from the limitations imposed by laws, regulations and government policies, and the main source of the businesses of this industry comes from biddings. The businesses are also affected by economic boom as well as the bidding systems – these elements impact the instability of the businesses quantities. Furthermore, as project particularity in the construction industry results in product heterogeneity, it is impossible to produce the homogeneous products of construction works through mass manufacturing. It is also impossible for existing construction enterprises to have scale economies to deter competitors from entering into the market. Therefore, the construction industry is not only subject to the constraints of external environments, provisions of laws and regulations, and entry barriers created by policies, but it is also unable to obtain cost advantages inside the industry through scale economies to deter other competitors from entry.

4. Types of Collusive Activities

According to the FTC's enforcement experiences, the types of violations committed by construction enterprises are mainly cartel practices. The enterprises had formed a networking association to threaten non-members to stop their construction or force non-members to join the association or formulate non-compliance penalties to fine members who are in violation of an cartel agreement and collects membership fees. As it is difficult to acquire direct evidence on cartel, the FTC has endeavoured to collect evidence on cartel practices mainly through investigation procedure. The FTC commences the investigation by communicating with upstream and downstream interested parties. After the FTC adequately has in hand the information regarding the operation of cartel activities, it interviews independently each member of the association with the intention to create conflict of interest among members and , hopefully, to break down the cartels.

5. Case 1: Asphalt Excavation Industry

Road maintenance projects are awarded through bidding by civil engineering contractors or asphalt companies, which then subcontract preparatory asphalt excavation works to downstream excavation enterprises. In Chinese Taipei, there are twenty-eight asphalt excavation enterprises and there are only four enterprises (namely Feng Hua Engineering Co., Ltd., Hong Sung Road Engineering Ltd., Tui Lung Engineering Co., Ltd., and Ho Hua Engineering Co., Ltd., which involved in this case) which engage in asphalt street excavation projects in the Kaohsiung-Pingtung area (located in southern Taiwan). Furthermore, due to the characteristics of the asphalt excavation industry, huge and heavy excavation machines and tools are needed for asphalt excavation construction. In the meantime, transportation costs are high, most of asphalt excavation enterprises operate their businesses in their located counties/cities, there are a few circumstances that enterprises operate their businesses in cross areas.

Four asphalt street excavation enterprises in the Kaohsiung-Pingtung area engaged in downstream asphalt excavation businesses provided by bid winner of the road project (they mainly constructed the asphalt excavation works necessary for the projects issued by the authorities, county/city governments in the Kaohsiung-Pingtung area and the Directorate General of Highways). They reached an agreement to form a networking association and agreed collusively to increase their prices for undertaking asphalt street excavation projects by NT\$ 6 per square meter to avoid price competition and exploitation by general contractors. NT\$ 2 of the increase in price would serve as membership fee for the purpose of settling disputes and the remaining NT\$ 4 was to be allocated to the three companies not undertaking a given construction project.

The four enterprises first formed a networking association in Kaohsiung City on August 1, 1996, and came into agreement concerning the proportions and prices for undertaking construction projects. The networking association operated continuously until early 1998 when it was temporarily suspended. In October 1999, the association resumed operation, which continued until September 7, 2000.

Article 14 of the Fair Trade Act prohibits enterprises from partaking in concerted actions. The term "concerted action," as defined in Article 7 of the Fair Trade Act, means the conduct of any enterprise, by means of contract, agreement or any other form of mutual understanding, with any other competing enterprise, to jointly determine the price of goods or services or to limit the terms of quantity, technology, products, facilities, trading counterparts or trading territory with respect to such goods and services, etc., and thereby restrict each other's business activities.

The four asphalt street excavation enterprises in the Kaohsiung-Pingtung area operated the networking association twice and the enterprises jointly determined the prices for undertaking construction projects causing the project quotation in the asphalt excavation market to rise in the Kaohsiung-Pingtung

area generally. Although the enterprises argued that they did not submit quotations in accordance with the provisions formulated by the networking association, their actions had violated Article 14 of the Fair Trade Act relating to the prohibition of concerted actions.

6. Case 2: Asphalt Excavation Industry

The five enterprises, Shih Yi Road Machinery Co., Ltd., Guang Tai Road Machinery Co., Ltd., Cyuan Ji Road Machinery Co., Ltd., Heng Tong Road Machinery Co., Ltd. and Yong Sheng Road Machinery Co., Ltd. convened a meeting of central Taiwan street excavation contractors in Shih Yi Road Machinery Co., Ltd. in mid-August 2000, during which the Central Taiwan Asphalt Excavation Industry Association was formed. The members came to mutual understandings to raise the price of street excavation to NT\$ 25 or higher per square meter and prescribed non-compliance penalties and the scope of the businesses covered.

Sin Chuang Engineering Co., Ltd. and Jih Ping Enterprise Ltd. joined the association soon thereafter. On October 11 of the same year, the aforesaid seven enterprises agreed on the operation areas for each of them, with construction projects in larger quantities in each area assigned to the association member in that area.

Peng Si Building Contractor Enterprise, Ltd., Sia Shih Road Machinery Co., Ltd. and Sin Sheng Engineering did not join the association until after the end of Year 2000. Association members further agreed on March 26, 2001 to fine those members who performed street excavation work for less than NT\$ 20 per square meter. Non-compliance penalties showed that these members who charged less than NT\$ 20 per square meter would be fined with NT\$ 1,000,000 and their construction works would be suspended for three months. The association, through mutual understandings appointed staff members to measure each member's construction quantities and the membership fee, NT\$ 3 per square meter was charged to cover related expenses for operation of the association and dining.

The ten asphalt excavation enterprises in this case formed or participated in the Central Taiwan Asphalt Excavation Industry Association one after another from August 2000 to 2001. They jointly raised the street excavation prices and restrained business activities in the geographic areas to draw illegal profits. Their actions create the effect of restraining substantially the competition in related markets and these enterprises shall therefore be condemned. Therefore, the acts violated Article 14 of the Fair Trade Act concerning the prohibition of concerted actions.

