

# **The roles of the Competition Commission and the Construction Industry Development Board in promoting competition and limiting construction industry cartels: a review of the Fast Track Construction Settlement Project**

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## **1. Introduction**

The confirmation of settlements by the Competition Tribunal of South Africa (Competition Tribunal) in July 2013 marked a major milestone in the Competition Commission of South Africa's investigation of bid rigging and collusion in the construction sector. With 140 projects affected by the collusive practices eligible for settlement, the Commission reached a settlement with firms on 57 projects for a combined administrative penalty of R1.46 billion.

Investigations of collusive practices in the construction sector are not unique to South Africa, as other countries such as the United Kingdom (UK), United States of America (USA), South Korea and Netherlands have looked into similar issues before (Haberbush, 2000; Lee and Hahn, 2002; Sohail and Cavill, 2008; Gupta, 2001; Dorée, 2004; Porter and Zona; 1983). This paper focuses on the role of the Construction Industry Development Board (CIDB), and as the Competition Commission has a mandate to investigate collusive practices in all sectors of the economy, including the construction sector, the paper also looks into the complementary role the CIDB can play to ensure firms are discouraged from engaging in collusive practices in the construction industry. There is also a focus on the measures that could be introduced at the regulatory level to ensure increased rivalry in large infrastructure projects.

To assess the construction sector and particularly the role of the CIDB in limiting construction industry cartels, the study sought to unpack the regulatory barriers to entry in the construction industry and to look at how the market could be open for more participation, structural factors that may contribute to bid rigging, ways in which competition can work, as well as interventions that could contribute to a transparent, yet competitive, bidding process.

Primary and secondary data was used to assess the questions of the case study. The primary data was collected through face-to-face unstructured interviews with the key informants identified from the CIDB, the South African National Roads Agency Limited (SANRAL), City of Cape Town, G. Liviero Civils and Fikile Construction. Other identified informants from the City of Johannesburg, Ethekewini Municipality, National Treasury, Giuricich Construction, GD Irons Construction, Group Five, PPC Limited (PPC) and the South African Local Government Association (SALGA) were contacted but did not respond to the request for interview. The views of the contacted informants provide a fair and balanced representation of the construction industry as they cover the regulator, a major metropolitan municipality, firms that were implicated in bid rigging as well as a large infrastructure projects client. The secondary data was obtained from the settlements

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concluded between the Commission and construction firms, CIDB regulations and articles in financial and business magazines.

The paper thus presents an overview of the investigations conducted by the Competition Commission in the construction sector, with particular emphasis on the form of collusive practices uncovered. Although the CIDB has legislation and regulations in place to ensure that the construction sector is competitive, develops and supports emerging contractors, and encourages a code of conduct for contractors, this has not stopped the construction firms from engaging in malpractices such as collusion and other forms of procurement irregularities, including submitting phony CIDB grading certificates to secure tenders. An assessment of the regulatory framework and practices in the construction sector shows some gaps that may require interventions to enhance the powers of the CIDB, improve coordination in the procurement of large infrastructure projects and incentivise the firms to compete.

The rest of the paper is organised as follows: section 2 provides a theoretical review on bidding markets as well as some examples of bid rigging in construction elsewhere; section 3 covers the background of the Competition Commission's construction investigation and the enforcement of the CIDB Act; section 4 provides an analysis of factors that may have contributed to bid rigging and key interventions that may be considered; and section 5 concludes.

## **2. Theoretical perspectives**

### **2.1 Bidding markets in brief**

In their basic form, bidding markets, according to Riley and Samuelson (1981:381), posit a scenario of 'thin markets characterised by a fundamental asymmetry of market position', between a single seller (the client) and numerous buyers (the bidding firms). In such a setting the seller looks to sell the goods or services at the price reflective of the rivalry between the buyers, with most bids/actions requiring a reserve price depending on the risk profile of the buyer. The common auction rules are English (known as ascending bids), Dutch (known as the high bids), first-price sealed bid auction and second-price sealed bid auction (the last two known as the Vickrey auctions) (Riley and Samuelson, 1981; see also Goeree and Offerman, 2004; Klemperer, 2004).

English or ascending bids are those in which an auction runs until there is no other high bid, whereby the winner is the highest bidder. Dutch bids are run such that the auctioneer starts from the highest price and gradually lowers the price, and the first bidder to take the price wins the bid. English bids can be open or closed, while the Dutch bids are open.

With the Vickrey auctions, the first-price sealed bid occurs in a manner that the bidders bid independently, and the one who pitches the highest bid wins. On the other hand, with the second-price sealed bids, bidders bid independently, but the winning highest bid pays the second-best price. The award for the bid on the second-best price is done to minimise the so-called winner's curse.

The auction principles, particularly the Vickrey auction methods, equally apply to bidding for infrastructure construction projects, wherein the client (being the single procurer of services) and the bidding firms engage in a bidding process. In this instance, the client determines a

budget for the cost of the service upfront and engages in a bidding process to pick the lowest credible bid within its budget. The accuracy of the client's budget would then determine if the project can be completed within the cost estimates of the winning bid.

Klemperer (2004) also notes that bidding markets are susceptible to collusion as firms can attempt to manipulate the outcome of a bid. The concluded investigations into the construction sector in such countries as South Africa, the UK, South Korea, the USA and the Netherlands point to the pervasive nature of bid rigging.

## **2.2 Bid rigging and public procurement**

It is widely accepted the world over that collusion among firms is the most egregious competition law violation. The extent of bid rigging in public procurement, a form of collusion, led the Organisation for Economic Cooperation and Development (OECD) to adopt the Guidelines for Fighting Bid Rigging in Public Procurement in 2009, which preceded the key recommendations made in 2012 for eradicating bid rigging (OECD, 2009 & 2012). It is expressly recognised by the OECD that an open, transparent and competitive public procurement is vital to ensure that goods and services procured by governments offer 'value for money' (OECD, 2012). However, much as public procurement systems could be stymied by instances of bid rigging, certain procurement rules also contribute to bid rigging (OECD, 2012). It is therefore important to look into the causes of bid rigging from both the firm and regulatory perspectives.

The OECD recommends the promotion of competition in public procurement through maximising the participation of bidders by focusing on the following interventions (OECD, 2012):

- establishing participation requirements that are transparent, non-discriminatory, and that do not unreasonably limit competition
- designing, to the extent possible, tender specifications and terms of reference focusing on functional performance, namely on what is to be achieved, rather than how it is to be done, in order to attract to the tender the highest number of bidders, including suppliers of substitute products
- allowing firms from other countries or from other regions within the country in question to participate, where appropriate
- where possible, allowing smaller firms to participate even if they cannot bid for the entire contract.

Bid rigging in public procurement affects many goods and services procured by governments such as textbooks, food, construction and professional services.

Sohail and Cavill (2008) note the pervasive nature of corruption (including bribery, embezzlement, kickbacks and fraud) in the construction sector as a major cause of poor or non-delivery of infrastructure projects. Although there have been measures designed at a global level (like UN and OECD conventions on bribery and corruption), Sohail and Cavill (2008: 734) argue that 'these top-down approaches are rarely accompanied by effective enforcement and so have proven largely ineffective', as construction sector specific

mechanisms are seen to be the more effective. In the case of South Africa, construction specific regulations are under the purview of the CIDB, whose existence could not prevent the widespread construction collusion at least up to 2009.

According to Sohail and Cavill (2008), to root out corruption in the construction sector, the following should be the areas of focus:

- raising awareness on such matters as ethical standards and good business practices
- strengthening professional institutions like trade associations
- preventing corruption
- enforcement and monitoring mechanisms.

Among other enforcement and monitoring mechanisms Sohail and Cavill (2008) also recommend that companies that are caught out bribing should be 'blacklisted'.

In assessing the cause of bid rigging in US public sector procurement, Haberbusch (2000) noted that facilitating factors include the practice of limiting competition from the outset of a bid (pre-qualification), a sealed bid process, limited deterrents for bid rigging, difficulties in detecting bid rigging schemes, and joint ventures. To counteract bid rigging in public procurement, Haberbusch recommends that procurement processes should require firms to disclose compliance programmes when bidding for work. Other measures include the re-design of bid documents to move away from the requirements of awarding tenders to the lowest bid, removing restrictions on bidder eligibility to bid, improving bid evaluation processes in order to detect bid rigging patterns, as well as introducing stronger punishment for firms involved in bid rigging (Haberbusch, 2000).

### 2.3 Rivalry in bidding markets and the profit maximisation problem

In a market with thriving rivalry, '[a] competitive bidder must determine an optimal bid given its likely costs and the probable distribution of the other firms' bids' (Porter and Zona, 1983: 528). The profit maximisation problem for each firm is of the following form (Porter and Zona, 1983; Lee and Hahn, 2002):

$$\max_b E \Pi(b) = (b - c_{it})\varphi_{it}(b) ,$$

where  $b$  is the submitted bid,  $c_{it}$  is the cost for firm  $i$  for job  $t$  and  $\varphi_{it}$  is the probability that the bid for firm  $b$  is the winning bid.

The higher the probability of firm  $i$  winning the bid, the larger the profits it makes, and vice versa. In the event that the firm does not win the bid, it makes zero profits (and incurs minimal costs related to the preparation of the bid). Firms tend to be incentivised to collude through such schemes as bid rotation or the submission of complementary bids in order to increase their probability of winning a bid, thereby garnering larger profits and at the same time dampening competition.

However, in a sector such as construction, where there is repeated interaction between firms, there could be added incentives for firms to collude. As Gupta (2001: 454) explains '...cooperation results from the common wisdom that if one firm bids aggressively against its

rivals, the rivals would bid aggressively on the future projects or in other markets'. The interaction between bidders, as Gupta (2001) argues, can also be used by regulators to detect collusive behaviour.

Gupta (2001) established that large contracts are prone to bid rigging and that bid prices are higher when there is repeated interaction between firms in other markets than when there is none (see also Haberbush, 2000). In the construction industry, especially for large contracts, there are generally fewer firms capable to undertake the work, meaning that repeated interaction between firms tends to be inevitable. The nexus of the issue should therefore be to design bids so that firms, even with repeated interactions, are incentivised to compete.

## **2.4 Some evidence of bid rigging**

### **2.4.1 USA**

According to Porter and Zona (1983), more than half of cases filed with the antitrust division of the US Department of Justice between 1982 and 1988 involved bid rigging or price fixing in a number of auction markets, including construction. Porter and Zona (1983) looked into ways to detect bid rigging in highway construction in the US (New York state) in the 1980s. The state was required to award the bid to the lowest 'responsible' bid provided the price reasonably accorded with the estimates for the work. The auction took a sealed bid form, where the bids were opened in one room with the bidders present and afterwards the winning bid was announced. Porter and Zona (1983) argue that this bidding practice provided a platform for firms to monitor any collusive arrangement that may have been in operation. Similarly, Gupta (2001) looked into the bids for the construction of a highway in the US's state of Florida between 1981 and 1986, which followed the same bidding patterns as in the state of New York. The bid rigging patterns observed in New York were also evident in Florida.

### **2.4.2 South Korea**

Lee and Hahn (2002) looked into bid rigging in the South Korean public works construction projects by assessing contracts awarded between 1995 and 2000. The bid rigging in South Korea, like in the US's states of Florida and New York, was implemented by the firms through rotational and complementary bidding (or cover pricing). The latter arrangement involves other bidders in collusive arrangement, except one, submitting the bids to lose (Lee and Hahn, 2002; Porter and Zona, 1983; Gupta, 2001).

### **2.4.3 UK**

The UK's Office of Fair Trade (OFT) uncovered widespread bid rigging practices in the construction sector for the investigation period between 2000 and 2006. Investigations were concluded in 2009 with 103 firms found to have been involved in bid rigging (mainly cover pricing, with instances of compensation payments) affecting 199 projects (OFT, 2010). The fines levied amounted to £129.2 million (circa R2,3 billion), although 25 of the fined firms appealed the decision (OFT, 2010). Bid rigging affected both public and private sector projects, with 57% of the projects public and the rest private (OFT, 2010).

#### **2.4.4 The Netherlands**

In the Netherlands, a television documentary aired in 2001, in which whistle-blowers detailed the extent of bid rigging in the construction industry, led to a public outcry and subsequent investigations by the Cabinet, the Department of Justice and the Dutch Competition Authority (Dorée, 2004). In the main, the following factors facilitated the bid rigging in Netherlands (Dorée, 2004):

- The bid-rigging scheme was such that when a new entrant was identified in an area, the colluding parties would ensure that they bid so low to exclude such an entrant from the market.
- Colluding firms had to pay each other compensation for submitting phony bids.
- Transparent selection procedures that had to be followed by public sector clients made it easier for the firms to manipulate the procurement process.

#### **2.5 Synthesis**

Dorée (2004: 154) further argues that '[t]o improve the situation of the construction industry requires further non-conventional procurement methods and less selection based on the lowest bid', in line with '...construction reform policies adopted around the world...'. Key drivers of the construction sector, according to Dorée (2004), should be based on value and quality-driven competition, integrated team delivery and long-term commitments. Dorée (2004:154) asserts that a sector like the construction sector is susceptible to 'ruinous competition' and as such competition cannot be sustained.

The Netherlands experience, like in all other countries where there has been bid rigging in the construction sector, shows that both the firms' stratagems and procurement processes facilitate bid rigging (Haberbush, 2000; Lee and Hahn, 2002; Sohail and Cavill, 2008; Gupta, 2001; Porter and Zona; 1983). The main challenge is to ensure that such collusive practices are eradicated at all levels of the procurement chain. Therefore, assertions by others like Dorée (2004) that competition in the construction sector is not feasible, suggest that without some form of cooperation between firms the benefits of competition cannot be realised. The construction sector, like any other sector with no features of a natural monopoly, can be competitive if there is rivalry between the firms. And by its very nature, competition is robust, so some firms will prosper while others will not; the solution cannot be cooperation but rather innovation and rivalry.

### **3. Construction sector investigations in South Africa**

#### **3.1 The investigation at a glance**

First signs of collusion in the construction industry came as a consequence of a corporate leniency application (CLP) by Murray & Roberts, through its subsidiary, Rocla, in 2007. This case exposed a cartel in the production of pipes, culverts and manholes as well as bid rigging in the supply of precast concrete products (Competition Tribunal, 2013a; Competition Tribunal, 2010). The cartel, as detailed in the case between the *Competition Commission v*

*Southern Pipelines Contractors/Conrite Walls*, operated from 1973 to 2007 in Gauteng, KwaZulu-Natal and the Western Cape. Having endured for such a long period, the cartel was structured so that one member of the cartel was designated a ‘banker’ to compile a list of all contracts available during a specific period. Cartel members then allocated regions and market share. The effects of the cartel were catastrophic. As the Competition Tribunal (2010:4) explained, ‘[c]artel members enjoyed a quiet and hugely profitable life, as evidenced by the drop in prices by between 25-30% post the disbandment of the cartel...’

In the light of the uncovered collusion in the construction products involving some of the top-tier construction firms, CLPs in the sector as well as international trends on bid rigging, the sector came under the radar of the Commission. This led the Competition Commission to prioritise the broader infrastructure and construction sector in 2008, among other sectors. The focus on the sector was also due to the infrastructure programme government was embarking on and therefore it was vital that prices of inputs to the infrastructure programme were not inflated by anti-competitive behaviour and practices. With the sector under the spotlight, the Commission embarked on an in-depth study of the entire value-chain of the construction sector and at the same time CLPs started flowing in.

Armed with the information on possible anti-competitive conduct in the sector, the Commission launched investigations of bid rigging and collusion in the construction sector in 2009. During the investigations, the Commission established that bid rigging and collusive conduct was rife in the sector. In light of the circumstances, the Commission decided, in February 2011, to invite firms involved in bid rigging and collusion to settle their contraventions provided that they fully disclose the extent of their involvement and, where applicable, pay an administrative penalty.

In 2013, the Commission concluded settlements with the majority of firms that were involved in the bid rigging and collusion on various projects for which contraventions occurred between 2006 and 2009. The total administrative penalties out of the settlement process amounted to R1.46 billion. Tables 1 and 2 provide the information on the projects that were affected by the scourge of bid rigging and collusion.

**Table 1: Projects affected by the construction cartel: Prescribed versus Non-prescribed**

	<b>Prescribed</b>	<b>Non-prescribed</b>	<b>Total</b>
<b>Number of projects</b>	160	140	300
<b>Number of projects (%)</b>	53%	47%	100%
<b>Value of projects</b>	R9.9 billion	R37.1 billion	R47 billion
<b>Value of projects (%)</b>	21%	79%	100%
<b>Total projects settled: 57</b>			

*Source: Competition Commission*

In total, 300 projects were affected by bid rigging and collusion for the period of at least between 2000 and 2009. Of these projects, 160 (53%) fell outside the prescription period set out in section 67 of the Competition Act. This is the period within which a complaint can be brought against parties involved in prohibited anti-competitive practices, and which explains the distinction between prescribed and non-prescribed projects in Table 1. Therefore, the projects considered for settlement were those deemed non-prescribed, constituting 47% of the affected projects. At the conclusion of the Commission's settlement process, there were settlements on 57 projects out of the total non-prescribed projects of 140, with the latter still under investigation by the Commission.

The value of the non-prescribed projects amounted to R37.1 billion (79% of the total projects), largely accounted for by the FIFA World Cup stadia construction and the Gauteng Freeway Improvement Plan (GFIP). In terms of value, the Commission's investigation and settlement covered a substantial portion of the projects affected by bid rigging.

**Table 2: Projects affected by the construction cartel: private versus public**

	Private	Public	Total
<b>Number of projects</b>	75	225	300
<b>Number of projects (%)</b>	25%	75%	100%
<b>Value of projects</b>	R19 billion	R28 billion	R47 billion
<b>Value of projects (%)</b>	40%	60%	100%

*Source: Competition Commission*

The uncovered bid rigging and collusion in the construction sector affected both private and public sector projects. However, most of the rigged projects were for the public sector (75%) while the remainder was for private sector projects (25%). In terms of value, the rigged projects for public and private sector accounted for 60% and 40% of the infrastructure spend, respectively. In total, projects to the tune of R47 billion were affected by bid rigging and collusion across the private and public sector projects.

### **3.2 Key large infrastructure projects affected**

A number of projects in both the public and private sectors were affected by the bid rigging and collusion in the construction sector. Details of the projects are found in the settlement agreements confirmed by the Competition Tribunal. Firms that settled with the Commission revealed the information on the projects where bid rigging occurred.

In public sector projects, bid rigging affected municipalities and public entities such as Eskom and SANRAL. The major public sector projects affected were the roads (GFIP) and FIFA Soccer World Cup stadia construction.

In the construction of roads, the top construction firms, namely, Grinaker LTA (an Aveng subsidiary), Basil Read, Haw & Inglis, WBHO, Concor and Raubex, reached an agreement at the Road Contractors meetings in 2006 to allocate tenders for the construction of roads. In addition, the firms agreed that firms not interested in winning the bid or not allocated a



project would submit cover bids to ensure that those interested, win the bid, an example of the cover pricing practice mentioned above.

Another major project was the construction of the new FIFA Soccer World Cup stadia. The bid rigging agreement was concluded in 2006 by Grinaker LTA, WBHO, Murray & Roberts, Group Five, Concor and Basil Read. These firms met twice to allocate among themselves the construction of the stadia, namely, Mbombela (Nelspruit), Peter Mokaba (Polokwane), Moses Mabhida (Durban), Soccer City/FNB Stadium (Cape Town), Nelson Mandela Bay (Port Elizabeth) and Greenpoint (Cape Town). The firms also agreed to exchange cover prices in their respective bids to ensure that the agreed allocations were realised, and they also agreed that a profit margin of 17.5% would be yielded from the construction of the stadia.

The collusive practices on the construction of roads and stadia were instigated by the top tier of South Africa's construction firms that were graded for large projects in CIDB's general building and civil engineering categories for grade 9 firms. Although there are just over 50 firms registered for CDIB 9 in the GB and CE categories, in reality only the top-tier firms are capable of handling large infrastructure projects. No emerging construction firm has been able to challenge the stronghold of the top tier. This made it easier for the top firms to reach an agreement as there would be no credible threat of rivalry from the other CIDB category 9 firms.

In the private sector, projects affected included industries/sectors such as mining (Anglo Platinum, Xstrata LionOre), paper and pulp (Mondi and Sappi), university residences (universities of Pretoria and Cape Town) as well as private residences. The uncovered bid rigging also extended to mining infrastructure projects in Burkina Faso, Zimbabwe and Botswana.

### **3.3 Forms of collusive tendering**

The construction sector, as revealed in settlements by firms with the Competition Commission, has been riddled with collusive practices for a number of years. But the extent of this conduct has not been fully exposed in the settlements as more than half (53%) of the rigged contracts were not considered for settlement as the contraventions had been prescribed in terms of the Competition Act.

What has been made evident is that the collusive practices took at least four forms: (1) agreements on allocating customers and profit margins to be attained from a contract; (2) cover pricing; (3) they payment of loser's fee to a bidder who submitted a cover price; and (4), subcontracting as a way of compensation to losing bidders (Competition Commission, 2013). Each of these formulations of bid rigging and collusion is discussed in detail below, including how the modus operandi of the firms unfolded.

#### **i. Scenario 1: Allocating customers and fixing profit margins**

This form of bid rigging occurred mainly at a high level, where firms gathered to allocate customers for anticipated construction work. The instances uncovered in the settlements were the road contractors meeting (for anticipated GFIP and other road construction works), the allocation of stadia for the 2010 FIFA World Cup, the Wade list meeting (for electrical work), and the Cape club meeting (for construction works in the Western Cape).

In the meetings, firms would allocate bids and, in some instances, agree on the profit margins to be attained. The firms were found to have been involved in this form of conduct without the knowledge of their clients.

## ii. Scenario 2: Cover pricing

Cover pricing has been defined in the settlements as an instance of collusive tendering as follows (Competition Tribunal, 2013):

*Cover pricing occurs ... when conspiring firms agree that one or more of them will submit a bid that is not intended to win the contract. The agreement is reached in such a way that among the colluding firms, one firm wishes to win the tender and the others agree to submit non-competitive bids with prices that would be higher than the bid of the designated winner, or the price would be too high to be accepted, or the bid contains special terms that are known to be unacceptable to the client.*

The former CEO of Aveng explains the finer details of the cover pricing scheme as follows (Jardine, 2013):

*The main practice appears to have been what is called 'cover-pricing'. A strong management system was clearly in place, including succession planning because when one person was promoted or left the company he would bring his successor to a meeting (according to evidence submitted, these meetings usually occurred at 5 star hotels), introduce the new person and do a formal hand-over. Some of the younger people knew that if they wanted to get ahead in their companies this was 'the way it is done'. The tenders were then allocated as follows: the firm not wanting the business gives a 'cover price' to a competitor who then wins the award on submitting a lower price than the 'cover price'. In some cases, the firm submitting the 'cover price' will be compensated through a 'losers' fee'.*

The settlement by firms as confirmed by the Competition Tribunal showed that a significant number of the collusive tendering was in the form of cover pricing, for both public and private sector contracts. Firms, individually or as joint ventures, decided on cover prices based on capacity constraints or as an act to inflate the bid price.

Cover pricing arising from capacity constraints, often rife in private sector projects, occurs when firms are invited to bid for work and have neither the available capacity nor the appetite for the work. In this instance, an invited firm would then request a cover price from another firm to bid so that the invited firm does not win the tender. Some of the firms argue that this form of cover price takes place as firms are generally reluctant to turn clients away.

In instances of cover pricing as a means to inflate tender costs, firms would agree on projects they should share among themselves, and use cover pricing to ensure that the outcome is achieved. This form of cover pricing is solely designed to ensure that the rivalry in the identified projects is eliminated, thus making it opportune for the firms to extract higher-than-normal profit margins.

Despite the form of the cover pricing or phony bids, it has been established in the countries that have uncovered bid rigging in the construction sector that such conduct is orchestrated to deceive the buyer that there is competition when there is not, with the ultimate goal of

achieving higher prices. In essence, construction firms were able to consistently influence the outcome of bids for infrastructure projects through cover pricing. And as shown in the details of the settled projects affected by bid rigging, firms have particularly been successful in ensuring that contracts are allocated to the chosen firm. It is only in very few instances of cover pricing (on settled projects) where one of the firms engaged in cover pricing did not win the tender (See for example the projects to construct the N2 Section 10-Gamtoos to van Staden River, Peter Mokaba Sports Stadium, Millwood Village Residential Project and Kempton Park City Mall).

Cover pricing has been the form of collusive pricing that allowed firms to continuously rig bids to influence the outcome of a tender process. In this way firms have been able to allocate contracts, eliminate competition and achieve higher prices that would not have been achieved absent the bid rigging.

### **iii. Scenario 3: Payment of a loser's fee**

In certain instances, cover pricing was combined with the payment of a loser's fee, which meant that participants in the cover pricing scheme were paid a compensation fee. This was a ploy by the construction firms to ensure that those participating in the cover pricing scheme were compensated, in some instances with payments in excess of R1 million.

According to the former CEO of Aveng there was even fraudulent accounting to conceal the losers' fee in the companies' books. In essence, the losers' fees were accounted as follows (Jardine, 2013):<sup>2</sup>

*These 'losers' fees' were apparently disguised through fake accounts in line items called plant and machinery, scaffolding hire or labour. Money came in and out of these accounts, they kept a score sheet to keep track of who owed monies, invoices were raised, and if another project came up offsets were applied.*

This form of accounting was obviously designed to hide these fraudulent payments from the auditors' radar.

### **iv. Scenario 4: Subcontracting**

Collusive tendering also occurred whereby participating firms were guaranteed subcontracting work for submitting false bids to clients. When the identified firm wins the tender, participating firms were rewarded with subcontracting work.

## **Conclusion**

In sum, the construction firms engaged in collusive tendering/bid rigging in the forms described in the scenarios above. For many years, before the investigations by the Commission, the firms were rigging the procurement processes on major infrastructure projects in South Africa with impunity. As the law has caught up with the firms, the challenge for the industry will be to adapt to a competition culture by abandoning these collusive tendering practices.

## **3.4 Enforcement of the CIDB Act**

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<sup>2</sup> The practice of recording losers' fees as plant hire was confirmed by a number of representatives of firms before the Competition Tribunal for settlement hearings, including Esorfranki, Murray & Roberts and WBHO.

The CIDB Act established the CIDB in order to implement an integrated strategy for the reconstruction, growth and development of the construction industry. The CIDB Regulations, adopted in 2004, provide a framework for grading contractors in terms of their capabilities and the volume/nature of the projects they can undertake. Initially, the grade of a contractor was based on two methods: one based on the track record and the other on the available capital. The latter method meant that a contractor could achieve a high grading provided it had available capital, regardless of its track record. This led to the amendment of the CIDB Regulations in 2013 to provide for a ranking framework based on both the track record and available capital. The current grading of contractors is set out in Table 3.

**Table 3: CIDB contractor grading**

<b>Designation</b>	<b>Upper limit (R) of tender value range</b>	<b>Best annual turnover (R) (50% of upper limit of tender value range)</b>	<b>Largest contract (R) (22.5% of upper limit of tender value range. 20% for Grade 2)</b>	<b>Available capital (R) (10% of upper limit of tender value range. 5% for grades 3 &amp; 4)</b>
<b>1</b>	200 000	-	-	-
<b>2</b>	650 000	-	130 000	-
<b>3</b>	2 000 000	1 000 000	450 000	100 000
<b>4</b>	4 000 000	2 000 000	900 000	200 000
<b>5</b>	6 500 000	3 250 000	1 500 000	650 000
<b>6</b>	13 000 000	6 500 000	3 000 000	1 300 000
<b>7</b>	40 000 000	20 000 000	9 000 000	4 000 000
<b>8</b>	130 000 000	65 000 000	30 000 000	13 000 000
<b>9</b>	No limit	200 000 000	90 000 000	40 000 000

*Source: CIDB Regulations, 2013 (as amended).*

The CIDB grades, from 1 to 9, determine the value of tender a firm can bid for based on its annual turnover, value of projects undertaken and available working capital. This system thus regulates the extent to which firms can participate in bids in the public sector. There are, however, provisions in the CIDB Regulations to allow firms to enter into joint ventures, meaning that they could receive a higher grade in order to bid for certain projects, as shown in Table 4.

**Table 4: CIDB grading for Joint ventures**

<b>Designation</b>	<b>Deemed to satisfy joint venture arrangements</b>
<b>3</b>	<b>Three</b> contractors registered in contractor grading designation <b>2</b>
<b>4</b>	<b>Three</b> contractors registered in contractor grading designation <b>3</b>
<b>5</b>	<b>Two</b> contractors registered in contractor grading designation <b>4</b> <b>One</b> contractor registered in contractor grading designation <b>4</b> <b>Two</b> contractors registered in contractor grading designation <b>3</b> .
<b>6</b>	<b>Two</b> contractors registered in contractor grading designation <b>5</b> <b>One</b> contractor registered in contractor grading designation <b>5</b> <b>Two</b> contractors registered in contractor grading designation <b>4</b>
<b>7</b>	<b>Two</b> contractors registered in contractor grading designation <b>6</b> <b>One</b> contractor registered in contractor grading designation <b>6</b> <b>Two</b> contractors registered in contractor grading designation <b>5</b>
<b>8</b>	<b>Three</b> contractors registered in contractor grading designation <b>7</b>
<b>9</b>	<b>Three</b> contractors registered in contractor grading designation <b>8</b>

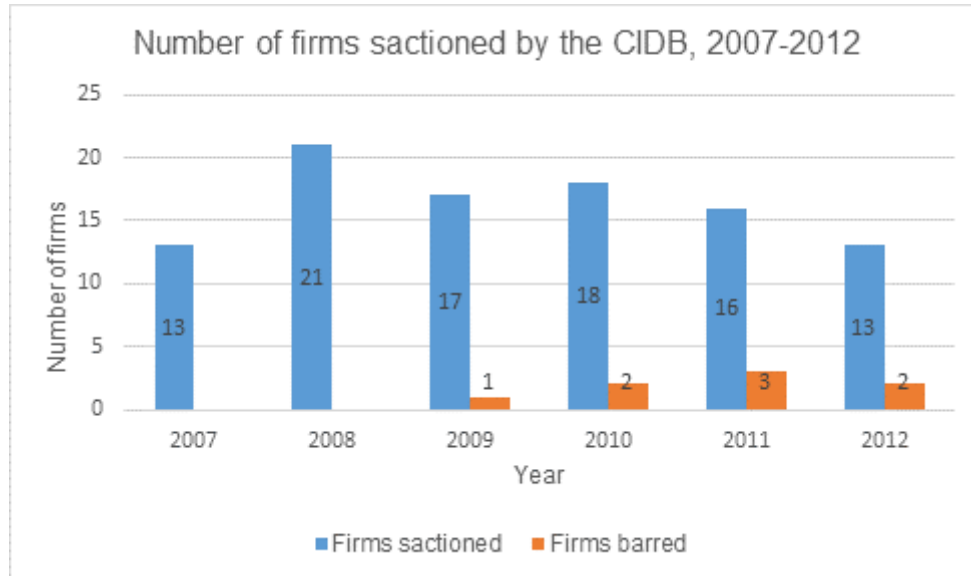
*Source: CIDB Regulations, 2013 (as amended).*

The joint venture arrangements set out in the CIDB Regulations ensure that firms are provided an opportunity to bid for work that they would otherwise not qualify for individually. For instance, in the case of large projects with the value of over R130 million (grade 9), there is a provision for a joint venture by three grade 8 firms, which could provide some scope for competition for grade 9 contractors.

Contractors seeking to bid for public sector contracts have to be registered on the national register of contractors. If a contractor is awarded a public sector contract, and is unregistered, it is liable for a fine not exceeding 10% of the value of the affected contract. For any other offences, a person (legal person) who contravenes the CIDB Act and/or any of its regulations is liable for a fine not exceeding R100 000.

Since 2007, the CIDB has sanctioned a number of firms for various contraventions of the CIDB Act and Regulations. Firms as well as the individual directors have mainly been meted with suspensions for a specified period (generally 6 months to 12 months, and in few cases, up to 60 months), required to reapply for registration, pay a fine not exceeding R100 000 and/or downgraded. Figure 1 shows the total number of firms sanctioned by the CIDB between 2007 and 2013, including those that were removed from the register of contractors indefinitely or for five-year periods or longer.

**Figure 1: Number of firms sanctioned by the CIDB, 2007-2012**



Source: CIDB government gazette notices, 2007-2012

Note: Statistics from the CIDB are only available from 2007 onwards.

Between 2007 and 2012, the CIDB has sanctioned 98 firms (including their directors) for various forms of irregularities, of which 8 were barred from registering indefinitely or for periods of at least five years. The most common contraventions are the submission of falsified financial statements, forged tax clearance certificates, inaccurate track records and bogus affiliations of members of staff to various professional associations. In recent times, the CIDB has also sanctioned public sector clients, such as government departments, for not publishing tenders or for appointing firms that are not on the register of contractors.

## 4. Analysis

There are various measures that could be considered for the South African construction sector to free itself from its past of collusive tendering past and move towards creating a culture of competition. Due consideration ought to be given to the regulatory environment, procurement management and the behaviour of firms.

For the construction sector to be competitive, there has to be effective regulatory oversight, transparent procurement practices and competitive rivalry among firms.

### 4.1 Regulatory considerations

The CIDB is empowered to regulate the construction sector to promote the growth and development of the sector. There are regulatory requirements that firms have to adhere to, particularly with respect to the register of contractors, which the CIDB keeps and in which it grades firms according to their capacity to carry out construction work. The stakeholders engaged for this study cite the CIDB grading of contractors as a necessary tool to ensure that firms in the sector meet certain minimum requirements to undertake projects.

There are, however, two main deficiencies with the CIDB grading system.

First, the grading does not provide sufficient information to clients on the capacity and ability of firms to undertake construction works. For instance, the CIDB grade 9, which is the highest grading a contractor can attain, has more than 50 firms than can potentially qualify to undertake the large infrastructure projects, but in reality only the top firms like Group Five, Aveng, Murray & Roberts, Basil Read, Raubex, Stefannuti and WBHO can deliver such projects. The number of firms in the CIDB grade 9 category gives the false impression that there are far more large construction firms, while the reality is that competition for large infrastructure firms only takes place between the top firms.

Second, the provisions in the CIDB Regulations for joint venture arrangements to allow firms to compete for CIDB grade 9 projects limit that possibility to only a consortium of three grade 8 firms at a time. There is thus no flexibility for allowing a group of emerging contractors, at different stages of development, to form consortia to compete for large infrastructure projects. This means that most of the emerging contractors rely on subcontracting work, which limits their potential to grow.

There is also concern about the penalties provided for in the CIDB Act, in the event of contraventions by firms. At best, the CIDB can deregister a firm from the register of contractors or levy a fine not exceeding R100 000.

Therefore, to ensure that there are fewer incentives for firms to engage in collusive tendering, the following regulatory interventions can be considered:

- Enhancing the powers of the CIDB to deal with procurement irregularities by contractors. This will require that there are appropriate and tougher sanctions, such as higher maximum fines that match the gravity of the procurement irregularities.
- Reviewing the CIDB grading system to take into consideration both the ability of a contractor to execute the work as well as its past performance. The thresholds have to be revised and based on the allowable annual turnover thresholds to ensure that contractors do not take work beyond their capacity to perform. As per the current formulation, the thresholds do not provide a limit on the number of projects a firm can take within a grade: this means that a firm may simultaneously take multiple projects of equal value but lack the capacity to deliver on all.
- Introducing support measures (e.g. deepening contractor development) and a regulatory framework to enable emerging firms to participate and bid for large infrastructure projects, instead of this being only the privileged terrain of the top firms.
- Cooperation between the Competition Commission and the CIDB in relation to investigations, particularly cases involving bid rigging in the construction sector.

The CIDB, with enhanced powers, can contribute to a competitive and efficient construction sector, thus contributing to the attainment of both the objectives of the CIDB Act and Competition Act.

## **4.2 Procurement**

At the level of procurement, much of the bid rigging in the large infrastructure projects that were undertaken in South Africa, according to both the City of Cape Town and SANRAL, is a

result of the way government planned the projects. During the Competition Commission's investigation period for bid rigging (2006 to 2009) government launched construction projects for roads (GFIP), FIFA World Cup stadia and Eskom power stations. At the time, there was only a handful of firms that had the proven track record to embark on such large scale projects. For instance, in the roads construction, SANRAL divided the work into packages and invited specific firms to bid for each individual package. As revealed in the Competition Tribunal settlements, the firms (Grinaker/Aveng, Basil Read, Concor/Murray & Roberts, WBHO, Raubex and Haw & Inglis) met to discuss the cover pricing scheme so that those firms that were not interested in the bids submitted phony bids. It can be inferred that the availability of other lucrative construction opportunities such as the FIFA World Cup and Eskom power stations provided room for the firms to sacrifice other work. In this regard, most of the stakeholders engaged for this study noted that this glut of infrastructure projects was the main reason that firms sought to collude, to extract the most rents.

In addition, there are noted concerns about the capacity of the government institutions to manage the procurement of large infrastructure projects. There is said to be a lack of requisite skills to procure services for large infrastructure projects, so that engineering consulting companies are retained to manage the process on behalf of a government institution. This, in the view of some of the stakeholders, is another main contributing factor to bid rigging, as the management of the procurement process is often outsourced to third parties.

The nature of the procurement process for public sector projects, particularly the requirement that projects must be awarded to the lowest qualifying bid, also contributes to bid rigging, since firms can easily pick whose bid should be the lowest. In most instances where the cover pricing practice was uncovered, the tender was awarded in line with the cover pricing scheme devised by the firms. This may call for other criteria to be used to evaluate prices. It has also been found that the lowest qualifying bid principle invariably leads to the winner's curse, as some firms would price too low to secure a project but without the necessary capacity to undertake the work.

Concerns related to private sector infrastructure projects have also been raised, particularly about the role of consulting engineering firms tasked to manage procurement. As there is no express requirement for a public procurement process in private sector projects, the consulting firms are often given the latitude to identify and recommend suitable contractors for a project. When firms are contacted by the consulting engineers for such projects, they tend to agree to participate in the tender process even in instances where they do not have the available capacity to undertake the work. The lack of capacity of some of the firms identified to participate in a tender process results in them (those with capacity constraints) to request their competitors to provide a cover bid so that the outcome of the bidding process is manipulated.

To counteract future acts of bid rigging in large infrastructure projects at the procurement level, the stakeholders interviewed noted the following potential key interventions (see also OECD, 2012):

- Government should consider spreading out the expenditure on large infrastructure projects over a longer time horizon. For example, the local construction industry did not have the capacity to undertake the number of large projects such as GFIP,



Eskom power stations and FIFA World Cup stadia that were initiated in the same period. The expenditure should be aligned with the capacity of the local construction industry to absorb the work.

- There has to be consideration of the options to split large construction projects into packages to allow for broader participation by construction firms. This would ensure that contractors that would otherwise not qualify for one large project, could successfully bid for individual packages. However, the project packaging should be designed in a way that does not compromise the quality of a project.
- Instead of rules that require projects to be awarded to the lowest qualifying bid, a consideration should be given to the benchmarking model (or other alternative models) whereby the winning bid is based on a range of the prices of the bids at some percentile (see also Haberbusch, 2000). The benchmarking model is similar to second-price sealed bids (one type of Vickery auctions) in which bidders bid independently, but the winning highest bid pays the second-best price. In the case of construction type bids, the second-best price would be second lowest. The benchmarking model could make it difficult for colluding firms to determine the price that would win the tender, thus negating the effects of a cover pricing scheme or complementary bids, and this is currently being considered by SANRAL and National Treasury.
- Transparent tender evaluation and adjudication processes. It is important to have a good tender document to avoid scope for bidders to manipulate the process. It should be a standard requirement that the supply chain management framework is structured so that there are separate committees managing the development of specifications, the evaluation of bids and the awarding of tenders. Also, the decision for the tender award and the reasons for the decision should be communicated to all firms that bid.
- Improved project management capacity in the public sector to ensure that projects are completed within the specified cost, quality and time. This has to be complemented with a clear governance framework with strict monitoring and evaluation of projects.

### **4.3 Firms**

For there to be a culture of competition in the construction sector, firms have a pivotal role to play. Competition, in essence, should take place between the firms rather than within a culture of cooperation through collusion and bid rigging. The cause of bid rigging, as most stakeholders noted, has been the entrenched culture of collusion that had for many years infiltrated the top tier of South African construction firms. The top-tier construction firms thus engaged in bid rigging to the detriment not only of clients but also the participation of emerging firms. As noted by Munshi (2013), '[e]merging contractors believe collusion robbed them of the opportunities to grow, for which they are entitled to restitution'. In the absence of bid rigging among the top-tier construction firms, which had been going on at least since 1999/2000, it is conceivable that new firms could have emerged over the years if they had had the opportunity to compete fairly.

For instance, there are contracts that have involved the construction of residential properties, roads and convention centres that would have provided the needed experience and exposure to the emerging firms in order to achieve higher CIDB grading. In the case of the Netherlands, for example, firms involved in bid rigging engaged in predatory bidding to exclude emerging firms; perhaps if some of the cases in South Africa are prosecuted, better insights on the modus operandi of the bid rigging scheme would emerge. There is a need for a shift in the way in which firms compete for projects, so that the culture of collusion and bid rigging is eradicated.

The firms involved in bid rigging on large infrastructure projects were, in the main, Group Five, Murray & Roberts, Aveng, Stefanutti, Basil Read and Raubex. These are, historically, the established construction firms in South Africa. Most emerging contractors are not implicated in the bid rigging, as they are mainly roped into projects for limited subcontracting work. The top-tier firms, with all the wherewithal to undertake large infrastructure projects, opted to collude rather than compete, as the stakes were deemed so high because of the magnitude of the projects.

Despite the enactment of the CIDB Act in 2000, with the view to promote participation in the construction sector, there have not been emerging construction firms that have grown to compete at the level of the top-tier firms. This points to the challenges that these emerging firms face. Although there are over 50 CIDB grade 9 construction firms, this has not translated into an increased level of competition in the space of large infrastructure projects. Some stakeholders ascribe this to the lack of the entrepreneurial culture by the emerging construction firms who tend to focus less on growing and building their businesses, and more on short-term financial gains. Others point to the lack of transformation of large construction firms, skills transfer and empowerment of the emerging construction firms (Munshi, 2013). The solution for meaningful participation by emerging firms in the construction sector could be found in both contractor development, as advocated by the CIDB, and inculcating the entrepreneurial culture both for emerging and established firms.

Measures to promote competition and participation in the construction sector can be introduced, so that the level of competition improves. These include:

- Procurement integrity management systems to improve transparency. In addition to the Certificate of Independent Bid Determination for public sector tenders, firms should be required to declare that there has been no instance of corruption in the bidding process, such as kick-backs to clients, payments to other firms in relation to the bid, bribes, etc.
- Adherence to the CIDB Code of Conduct for all parties involved in construction procurement.
- Promotion of emerging construction firms through skills transfer and empowerment by the large construction firms.
- Promotion of competition by foreign construction firms in large infrastructure projects.

According to Dorée (2004), there is a risk for the construction firms, in the case of the Netherlands, to revert to collusive practices if appropriate structural and behavioural remedies are not adopted. However, firms ought to be aware that there are potential costs

of engaging in collusion, with far-reaching consequences. There are costs for firms who engage in bid rigging, as this takes management time to productively work on the business to increase productivity, innovate and grow the business. Firms have to do more than regulatory compliance: they need to change their behaviour to eradicate the culture of collusion in their businesses.

## **5. Conclusion**

Efficient procurement of construction services on large infrastructure projects hinges on the competitiveness of the construction sector as well as procurement practices. Bid rigging in construction has been uncovered in many countries, and this points to the need for robust regulation to ensure that firms are incentivised to compete and that conditions are favourable for emerging firms to compete. The challenge of bid rigging is also more pronounced in large infrastructure projects, where there are generally few firms with the capacity to compete for these projects.

The CIDB can play a more active role in limiting construction sector cartels in large infrastructure projects, particularly if it is granted sufficient powers to sanction firms that may be involved in collusive practices and also promote the participation of emerging firms to challenge the stronghold of the top-tier construction firms. The sanctions should be complementary to the mandate of the Competition Commission, rather than supplant it.

The paper proposes interventions that could be necessary at the regulatory, procurement and firm levels to ensure the construction sector charts a new sustainable competitive path.

With the mix of the proposed interventions at the regulatory, procurement and firm levels, the South African construction industry could be less susceptible to collusive practices and, to a large extent, any other procurement irregularities.

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