

# 1. Introduction

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## 1. BACKGROUND

Well-organized public procurements have become more important in recent years. In these times of tight public budget constraints, and in the presence of increasing investment demand owing to the financial crisis, cost-effective public procurements are a growing focus of attention. The Organisation for Economic Co-operation and Development (OECD), the World Trade Organization (WTO) and the European Union (EU), for example, are promoting well-structured public procurement systems and competition law regimes as being essential to foster economic prosperity and social welfare.<sup>1</sup> A central element of concern for public tenders involves bid rigging conspiracies – in other words, cartels. Bid rigging is frequently described as a

particular form of coordination between firms which can adversely affect the outcome of any sale or purchasing process in which bids are submitted. For example, firms may agree their bids in advance, or decide which firm will be the lowest bidder. Alternatively, they may agree not to bid or to rotate their bids by number or value of contracts.<sup>2</sup>

It bears mentioning, however, that such a conceptualization is by no means ubiquitously used. In China, for example, bid rigging does not only embrace collusion but also corruption; the concept is thus broader than it is in other jurisdictions. For the purpose of this research, however, bid rigging is considered to embrace only cartels and not corruption. Bid riggings can take many forms but they can normally be classified as bid suppression schemes, complementary (or courtesy) bidding, bid rotations or subcontracting schemes.<sup>3</sup>

Cartels inflict a considerable cost upon societies by creating undue price increases that translate into unsatisfied societal needs.<sup>4</sup> Given the inherent

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<sup>1</sup> See, for example, OECD (2009).

<sup>2</sup> European Commission (2002).

<sup>3</sup> Attorney General, State of Connecticut (2009), 4.

<sup>4</sup> This is generally referred to as a “dead weight loss” to society: see Martin (1994), 28.

information asymmetry that characterizes violations in the area of competition law in general and cartels in particular, it is not surprising that exact data on the size and extent of these societal costs is unavailable. Bearing in mind that in most countries public procurement accounts for 15 to 20 per cent of the GDP<sup>5</sup> and that bid rigging estimates suggest that prices in the construction sector are strongly inflated (for example, by up to 30 per cent<sup>6</sup> in the case of Japan), it can well be expected that societal costs could indeed be very sizable and massive amounts of taxpayers' money is wasted.

Given the potential size of these costs to society, it is particularly lamentable that competition law and public procurement laws appear to have developed, to a large degree, independently of each other. This may be explained by examining the objects and purposes of the respective legal fields. In addition to the attainment of particular societal objectives competition law essentially seeks to regulate firms' behaviour<sup>7</sup> in the economic field. It addresses conduct such as cartelization, abuse and control of market concentrations. In contrast to this, public procurement rules seek to regulate the way in which public bodies purchase. Public procurement should be performed in a non-discriminatory and transparent manner that gives rise to undistorted competition, thus allowing administration to obtain best value for money. The functional overlap is confined to prohibitions of bid rigging conspiracies that are recognized as problematic by both legal fields. While competition authorities apply (industrial) economics insights to identify such conspiracies, public procurement authorities frequently employ detailed comparative analysis of bid submissions to identify violations.

This book addresses the relationship between public procurement law and competition law in the area of bid rigging conspiracies from a law and economics perspective. More specifically, it examines whether current competition and public procurement legislation in the EU, China and Japan deal effectively with bid rigging cartels and how economic theory could be utilized to prevent such conspiracies. The book is therefore not focusing on the *ex post* identification of cartels, but is rather seeking to examine means to prevent their creation in the first place. In its assessment it is also interested in pointing out the limits of the applied economic theories.

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<sup>5</sup> European Commission (2004), 5.

<sup>6</sup> USTR (2002), 9.

<sup>7</sup> Though it bears mentioning that EU competition law, of course, extends also to state behaviour and state aid.

## 2. RESEARCH METHODOLOGY AND OUTLINE OF THE STUDY

The dichotomy between the legal areas of public procurement law and competition law does not appear to be extending into the area of economics. In the economic sphere there are two different fields that can be employed to address bid rigging conspiracies. Industrial economics is used to analyse competition while auction theory addresses biddings in a strongly analytical fashion. Although a direct link does not appear to be formally established, the insights of industrial economics have been applied in the framework of auction theoretic modelling. Before elaborating upon the linkages between these fields, they will be briefly introduced.

Industrial economics has a strong interest in the myriad of market structures found in the real world.<sup>8</sup> As such, it is also concerned with government policy regarding antitrust policy, regulation and public ownership, as well as with the determinants of firm behaviour, scale and scope of business organizations. While antitrust legislation is intrinsically normative, industrial economics can be viewed as a positive<sup>9</sup> complement to determine which outcomes are superior (that is, more desirable from a social welfare point of view) in the presence of imperfect knowledge, product differentiation, transaction costs, ownership integration, research, development and innovation, and contractual relations such as tying, resale price maintenance, franchising, exclusive dealing and joint ventures.<sup>10</sup>

In contrast to industrial economics that looks at the market as such, auction theory has a more limited scope and focuses on bidder behaviour during auctions. An auction can be understood as a set of rules which translate information revealed by bidders into efficient outcomes by means of an allocation and a payment rule. The challenge of auction theory is to develop auction rules which are tailored to the preferences of bidders in such a way as to provide “Pareto optimal”<sup>11</sup> allocations. Auctions do not only differ with regard to allocation and payment rules, but also with respect to the amount of information they require bidders

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<sup>8</sup> See Shughart II (1990), 1.

<sup>9</sup> For clarification of the distinction between positive and normative approaches, the interested reader may be referred to Friedman (1953), 3–43.

<sup>10</sup> Shughart II (1990), 1.

<sup>11</sup> Pareto optimality describes situations in which it is impossible to make one person better off without making at least someone worse off. In the absence of side payments between bidders, Pareto-efficient but sub-optimal allocations may occur.

to reveal. In the context of public biddings, auction theory can be used to design auctions in such a way as to attain low prices.

From a functional perspective, both industrial economics and auction theory are strongly complementary. While the former analyses cartels in real-life markets, the latter deals with them in the specific situation of a bid. It is therefore not surprising that only in-auction collusion can be addressed through auction theory, while cartels that draw their stability from long-established collaborations on the “real” market can be seen as being beyond its reach. In order to address in-auction collusion, auction theory benefits from basic industrial economic insights to design optimal responses of auctioneers to destabilize cartels and to ensure competition on the merits, which constitutes an important concept in economics.

For the purpose of this study, three different legal systems have been chosen (the EU, China and Japan) as a framework of analysis to examine in which ways economic theory can be employed to prevent bid rigging conspiracies. The jurisdictions have been selected on the following grounds.

The EU has been included because it overhauled its public procurement rules in 2004 and, despite its efforts to create a competitive internal market, Member State government purchases remain a predominantly national affair. The absence of sufficient competition from other Member States necessitates particular attention to be placed on the detection of cartels and optimal punishment. Since the EU does not have the ability to employ criminal sanctions as a deterrence tool, it has to rely on administrative fines. These are inefficient if detection is low, the potential gains from infringement are large and the fines that can actually be paid by companies are limited. A close examination of a jurisdiction that has at its disposal only limited legal tools to address bid rigging can be insightful since it requires its tools to be designed well in order to influence firm behaviour.

China has very recently promulgated its competition law and modernized its public procurement legislation. Besides devoting some attention to cartels, the legal rules have a strong focus on fighting corruption. Very transparent procedures designed to satisfy the latter objective facilitate cartel formation and operation. Its inclusion thus allows an examination of the effectiveness of a legal system that has multiple objectives at the same time.

For a number of years now, the Japanese Fair Trade Commission (JFTC) has placed a strong enforcement focus on cartels. Of the 85 bid rigging cases in which the JFTC took legal action during the (fiscal) years 2002 to 2006, 66 were hosted in the construction sector (a stag-

gering 78 per cent).<sup>12</sup> Despite these enforcement successes, the legislator felt the urge yet again to renew the Japanese anti-monopoly law and to strengthen the legal tools available to counter such cartels. Japan can rightly be viewed as the most active actor in addressing (bid rigging) cartels and the approaches taken by Japan may contain important lessons for other legal systems. The construction sector is examined more closely.

Given the relative lack of data, auction theory is used to examine bid rigging in the EU and China. This is carried out by means of an analysis of the existing legislation. A theoretical law and economics analysis is conducted, which examines on the basis of detection and optimal deterrence the effectiveness of the legislation.

Bearing tribute to the degree of information required for conducting an economic examination of a market, the Japanese construction sector has been selected as a framework for industrial economics. Even though data at the regional and local levels is not available via the central bureau of statistics, the available data still allows for a sound description of the industry and the identification of factors that facilitate bid rigging conspiracies.

Given the different economic approaches employed, extrapolations are to be qualified since a direct comparison of the findings is not possible. And yet the insights gained allow for an appreciation of the limits of the economic tools employed. Similarly based on the theoretical framework, it can be examined whether the competition and procurement laws in the EU, China and Japan are effectively addressing bid rigging conspiracies, in which ways economic theory can be employed, and where its limits are.

The book is structured in two separate parts. The first is dedicated to the description of economic theory; the second part applies the economic theory from a law and economics perspective to the legal rules that address bid rigging conspiracies in the three jurisdictions. Part 1 presents first (in Chapter 2) the law and economic theory of optimal enforcement. Chapter 3 presents the field of industrial economics, which is applied in Japan. The economic theory presented here constitutes the framework for analysis and is presented in a less technical and more accessible fashion. It is hoped that this makes this work accessible to a wider audience. Chapter 4 presents auction theory that is applied to the EU and China. Part 2 analyses the effectiveness of the legal frameworks that address bid rigging conspiracies in the three jurisdictions. It examines in which way they follow economic insights. Chapters 5 and 6 address the law in

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<sup>12</sup> OECD (2008), 67.

the European Union; the Chinese (Chapters 7 and 8) and Japanese laws (Chapters 9 and 10) are then examined. A conclusion brings together the outcomes from the preceding law and economics analysis and presents some reflections on the limits of the applied economic theory.