Judicial versus Private Auctions: Better without Protection?

Ricardo D. Paredes[1]
Andrés Crisosto K.
Philippe Martí C.

Abstract

At the beginnings of the 1980's Chile liberalized the entry of auctioneers and partially the auction fees. The reform, though, kept two restrictions for judicial auctions only: i) new maximum fees, and ii) the obligation for judges to assign auctions in a non-discriminatory manner among the different registered auctioneers. Competition policy concerns were severely reduced since freedom of entry, and maximum legal fees were considered enough disciplinary mechanism to avoid monopolistic inefficiencies.

Using a sample of 680 and 1300 judicial and private auctions respectively, we find that Courts assign the judicial auctions in a discretional manner, and that the assigned auctioneers charge fees which are substantially higher than those permitted by law. We test the hypothesis that the judicial auctions' design has additional costs and, consistent with the predictions of a simple model, that it is more likely for Courts to appoint the less efficient auctioneers. We conclude also that, as the model predicts, the net price received by creditors and debtors in judicial auctions are about 18% to 33% below those possible to obtain in private auctions, where freedom of entry and freedom to set prices exists.

Key words: auctions, institutions, corruption.
Classification JEL: K23, L12.

1. Introduction

The effects of institutions on economic performance and development have been highlighted in different contexts (see, Levy and Spiller, 1997). Chile has been recognized due to its advanced institutions and in particular, because the low corruption and the clear norms to do business. Kaufmann (2005), and International Transparency (2006) position Chile as the country with the greatest level of transparency in Latin America, and in the 21st place out of 159 countries, above Spain, Italy and the Czech Republic (see, for institutional analysis in Chile, Stone, Levy and Paredes, 1996; and Paredes and Sánchez, 2004). The institutional analysis in Chile, however, has left aside certain aspects of

[1] Paredes (corresponding author), School of Engineering, Pontificia Universidad Católica de Chile rparedes@ing.puc.cl, Vicuña Mackenna 4860, Santiago, Chile. Crisosto acrisisto@grupoalco.cl and Martí pmarti@puc.cl, School of Engineering, Pontificia Universidad Católica de Chile. We thank Maria Teresa Ruiz-Tagle, Ignacio Casas, Marcos Lima, Enzo Sauma, Oskar Nupia, to the participants of the 8th LACEA-Political Economy Network Annual Meeting, Cartagena - Colombia, those of the European Law and Economics Association Conference, Haifa, 2008; and specially to Valentina Paredes for her suggestions. Paredes acknowledges funding granted by Fondecyt, Proyect No. 1060691. Usual disclaimers apply.

regulatory provisions and the topic of corruption has been hardly analyzed. There is an implicit idea that this aspect is not existent in Chile.

The purpose of this paper is to analyze judicial auctions, an institution of great legal relevance in the judicial area, particularly for LDCs. A first motivation relates with the idea that the assets bought at judicial auctions are sold cheaply, and that creditors and debtors interests both suffer damage as a result of them, particularly due to collusive actions between auctioneers and people who bribe them (see, Valdés, 2006, El Mercurio, 2006, Honduras, 2003 and The World Bank, 2003).[2] The relevance of the regulatory framework to explain whether judicial auctions help or not creditors and debtors is the question we address and it is something relatively unknown or at least ignored analytically in the literature.

We analyze how judicial auctions operate, their efficiency and the consequences for distribution. We specially focus on the effects and compliance of two regulations that are specifically set for judicial auctions: the random appointment of auctioneers by Courts and the controlled fee structure. A simple model suggests that this designs goes against consumer's well being.

The paper is structured in three sections besides this introduction. The second section describes the institution, the regulatory framework and provides a simple testable model. The third section describes the data, and the results, and the fourth section concludes.

2. Judicial Auctions

2.1 Origin and Mechanisms

France was the first country that regulated the practice of auctions. In 1576 an edict attributed to Henry II established the appointment of "assessors-sellers" to seize assets, appraise them and sell them through public auctions when the parties requested it or the law required it. In 1801, 80 positions of Public Auctioneers were instituted in France and the law forbade those who had not been awarded such a designation to carry out auctions. As

[2] For Honduras (2003), a main recommendation to reduce corruption was the elimination of the discretion of the judges to select the auctioneer. In the case of Peru, in the context of business development, the World Bank recommends to create instances of private resolutions to avoid judicial auctions.

time went by, some differences arose in the legislation of the different countries, particularly in what respects the degree of freedom to organize and carry out auctions, but restrictions to entry remained in most countries.

In Latin America and in Chile in particular, auctions began with the Spanish Colony in mid XIVth Century. The Chilean legal system shares several elements with the French system, though it experienced the greatest changes over the last 25 years. Standing law in Chile was based on the Decree Law No. 263 of 1953, which created the juridical system of the Public Auctioneers. That same decree instituted the system of public contests to fill in the positions of Public Auctioneers that finally were designated by districts by the President of the Republic (See, Llach, 1988). In practice, that was a barrier identified with monopoly rents.[3] In the 1980s, with the structural reforms of the Chilean economy, and following the French trend, the restrictions to entry to become an Auctioneer came to an end.[4] As in other sectors and activities, Chile allowed entry even at a greater extent than in the State of Tennessee, the core of the Auctioning Activity in the United States, and which ranks as one of the most active auction markets in the world (see, Rules of the Tennessee Auctioneer Commission, 2004).

Regarding the mechanisms, auction theories have been the basis to understand price formation methods and negotiations in which both the buyer and the seller are actively involved in price setting (see, for instance, Klemperer 1999, and its references). In his excellent review of the literature, Klemperer (1999) classifies the two basic designs of auctions most commonly used: the ascending auction and the first-price sealed-bid auction. In the ascending bid auction, also known as the English Auction, the price is raised successively until one bidder remains. This type of auction can be performed when the auctioneer is who announces the prices, and the bidders are the ones that make the offers. Ascending auctions are used in Chile and are the prevailing method in Latin America.

[3] In the middle 1970s in Chile, most legal monopolies were ended. Nowadays, some exceptions are the notaries and the Conservador de Bienes Raices, some port experts (basically limited to ex Army officers), and translators in the Foreign Affair Ministry, limited to 4 ladies. For an analysis of the nature of these monopolies, see Valdés (2006) and for the Conservador de Bienes Raices, see Abarca (2006).

[4] The costs of the monopolies in auctions had already been detected in France. This had a key role in the art auctions until the year 1950, when the country lost it to the British auctioneers Southby's, Christie's and Phillips, who without any restrictions gained more and more space in the field. In the year 2005, the new auctioneers conducted more than 90% of international art sales (see www.diplomatie.gouv.fr).

The literature has focused in establishing the conditions that make one type of auction better than another. Vickrey (1961) established that the strategies of the participants under different types of auctions (e.g. ascending offer, descending offer, sealed-bid, first and second price, etc.,) come to be the same. However, the research on the most efficient types of auctions still poses great challenges (Klemperer, 1999), something we do not assess in this paper. Instead, we take as given the efficiency characteristics of the ascending offer auctions method, the only design resorted to in judicial and private auctions in Chile.

2.2 Judicial and Voluntary Auctions

The most relevant distinction for our purposes is that between voluntary and judicial auctions. When an agent commits to the payment of a loan, he does so with all his assets, moveable or immovable, present and future. The latter means that when a default occurs, the creditor may resort to any of the debtor's assets to be paid and if after this any debt persists, that is, until the liability has been completely settled. However, a creditor cannot obtain payment directly without having passed through the judicial formality, unless there is an express agreement. Necessarily, a judicial auction must be performed through a public auctioneer to collect the debt.

The judicial auction may be requested by a civil court, a local police law court or a criminal court, that accepted a creditor's demand. To this end, the judge appoints one of the auctioneers included in the Registry of Judicial Auctioneers. The auctioneer, at the moment he receives the goods, must make a statement containing all the specification established in the law with respect to the writ of attachment by default. This writ must be undersigned by the Auctioneer and a Minister of Faith.

The auctioneers are accountable for the auction to the court within the next five working days after the auction has taken place. From the price of the auction, the auctioneer can deduct the legal taxes, the cost of the advertisements and its own fee. Consequently, in the case of judicial auctions, from the price paid by the bidder, the court (i.e., the creditor) receives the difference between that price and the expenses associated with the auction.

The enactment of Law 18,118 in September 1982, produced an important deregulation in judicial auctions. The main change was the end of the formal restrictions to be an auctioneer. The law also liberalized fees in the case of voluntary auctions, though

retaining limits in the case of judicial auctions. Thus, the prohibition to charge fees in excess of 1% for judicial auctions was eliminated, and was created a decreasing scale from 8% to 0.5%, depending on the price of the good (Table 1)

Table 1

Maximum Rates in Judicial Auctions (US$)

Range	Percentage	Fix fee	Estimated Payment
0 - 1,205	8%	0	8%
1,206 - 1,807	7%	12	7.8%
1,808 - 2,412	6%	30	7.4%
2,413 - 3,012	5%	54	7%
3,013 - 6,026	4%	84	5.87%
6,027 - 12,054	3%	144	4.6%
12,055 - 30,118	2%	265	3.4%
30,119 - 60,238	1%	566	2.26%
over 60,238	0.5%	867	1.7%

Source: Ministry of Justice.

In addition, the law required that the designation of auctioneers followed the correlative order of the registrations filed, so there were no room for arbitrary designations. This latter had the purpose to discourage corruption and in particular, that bribes or payments were made through the designation as auctioneer.

3 A Simple Model

We compare three cases we associate with both, different regimes, judicial and voluntary auctions, and with different degrees of compliances with the law. In any case we assume that auctioneers maximize their wealth (W) defined as (c-e)*N, where c is the fee charged to customers, and that the fee is a constant proportion (α) of the auction price (Pa). Pa depends exclusively on the expenditure made by the auctioneer (e), where $\partial Pa/\partial e > 0$ y $\partial 2Pa\ \partial e2 < 0$. We want to determine the optimum e* and (Pa – c), the net price a consumers get. As Pa-c is equal to Pa (1-α), the consumers' net price only depends on e.

We analyze three cases: i) private auctions, ii) judicial auctions with full compliance of the law, and iii) judicial auctions with partial compliance with the law.

i) Private Auctions.

N depends on consumers demand, and hence, on the auctioneer's reputation; that is, N = f(Pa-c)=f((1-α)Pa). In this case, the auctioneer maximizes:

$$\prod = (\alpha Pa(e) - e) * N((1-\alpha)Pa(e))$$

FOC:

$$\partial\prod/\partial e = (\alpha\, \partial Pa/\partial e - 1)*N + (\alpha\, Pa(e) - e) * \partial N/\partial Z\ (1-\alpha)\ \partial Pa/\partial e = 0$$

(-) (+) (+) (+) (+)

where Z = (1-α)Pa(e).

Since N increases with e, in the equilibrium, $\partial Pa/\partial e$ must be <1, so ($\alpha\, \partial Pa/\partial e - 1$) must be negative.

ii) Judicial Auctions, with full compliance of the law.

In this case, N is independent of the auctioneer's actions (for instance, N is random or taken sequentially form a list) and t = 0. The auctioneer maximizes:

$$\prod = (\alpha\, Pa(e)-e)* N$$

FOC:

$\partial\prod/\partial e = N\ (\alpha\, \partial\ Pa/\partial e -1) =0 \ \rightarrow \partial Pa/\partial e = 1/\alpha > 1.$

As a consequence, the optimum e in the judicial auction with full compliance of the law is lower than in the private auction case.

iii) Judicial Auctions with transfers (or bribes) through Pa.

We assume the auctioneer bribes the official who designs the auctioneer by allocating the good at a reduced price.[5] We assume for simplicity, N = N(γ/Pa). In this case, the auctioneer maximizes:

$$\prod = (\alpha\ Pa - e) * N(\gamma/Pa)$$

FOC

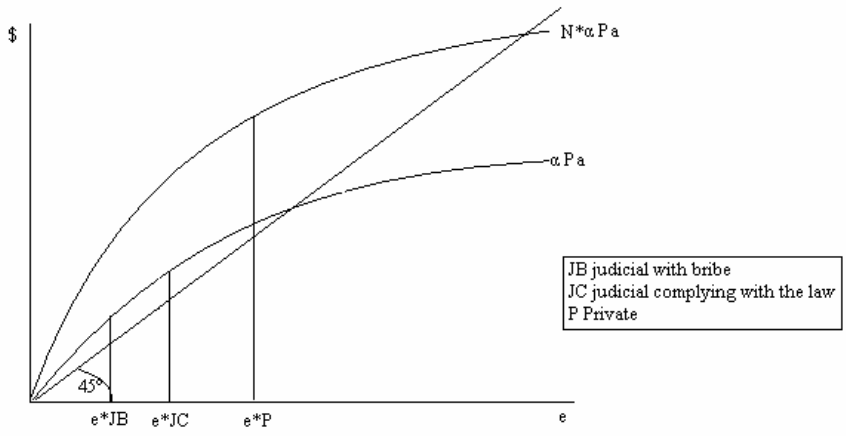
$$\partial\prod/\partial e = (\alpha\partial Pa/\partial e - 1)\ N + (\alpha\ Pa - e)\ \partial N/\partial(\gamma/Pa)\ (-\gamma/Pa2)\ \partial Pa/\partial e = 0$$
$$(+) \quad (+) \qquad (+) \qquad (-) \quad (+)$$

The FOC requires in this case that $(\alpha\ \partial Pa/\partial e - 1) > 0$, so $\partial Pa/\partial e > 1/\alpha$, as in the case ii) (see figure 1).

The implications of this model are basically two: i) the mechanism to allocate auctions considered in the law for Judicial Auctions reduce consumers' welfare; ii) that mechanism induces more corruption which in turn reduce further the net price received by consumers.

Figure 1

Expenditure and Consumer net Price under Private and Judicial Auctions



[5] Notice that in the case of private auctions, ex post expropriations are also possible, though less convenient since N depends on the reputation created.

4. Data and Results

4.1 Data

To test the hypotheses we collected data on judicial auctions for the period January of 2004 and May 2006 in seven of the most important Civil Courts in Santiago, Chile (21st, 23rd, 24th, 25th, 27th, 29th and 30th). We only considered car auctions, since it is easier to get market prices and hence, to have a benchmark of the real price. The period and the number of Courts chosen is only explained because the difficulty to collect data. Considering Civil Courts, however, allowed us to analyze a sample only consisting of cars in good condition, since the lawsuits which order these auctions are, in the main, for default in the payment of the sales.

The information includes the plaintiff, the auctioneer assigned, the brand, model, year of the car, the demand in $, the selling price, the auctioneer's fees and the advertising costs. Three samples were created. The first has 440 auctions of cars in good conditions. The information about the quality of the cars was obtained from the check-up chart of the vehicle seized and deals with cars that were actually auctioned. The second sample has 680 assignments, and includes those cars in doubtful conditions and lawsuits that are up for auction, but in which the auctioneer was appointed. Finally, we also got private auction information provided by Tattersal, a private firm specialized in auctions, with data on more than 1,500 auctioned cars. Under the same selection criteria used by judicial auctions, the final sample of Tattersal was 1,039 cars.

Our main concern is the effect on efficiency of the regulation. We considered as an efficiency indicator (AE) the net price received by the Court over the market price, as:

$$AE = \frac{\text{Auction Price} - \text{Auctioneer Fee} - \text{Advertising Cost}}{\text{Market Price}} = \frac{\text{Net Price}}{\text{Market Price}}$$

To get the market price for each car we analyzed the selling prices in different media, and in particular, in the "car sells" section of the "El Mercurio," the newspaper with most advertisements at national level. We also considered for each car and model, the average price advertised, excluding those with evident failures. On average, the price thus

calculated does not differ than the fiscal valuation in more than 1.5%. We choose the fiscal valuation as the estimator of the market price.

Table 2 shows a ranking of efficiency for the auctioneers. The first column shows the AE, defined in (1), and the second, the ratio between auction price and market price, the total number of auctions conducted by each auctioneer, and the number of Courts with assignments.

A striking observation is the difference of nearly 20 percentage points in the average efficiency of the ten most and the ten least efficient auctioneers. Furthermore, only about half percentage point of this difference can be explained by different advertising costs and commission fees, so the main explanation for the different efficiencies is the auction price. Consequently, there is a potentially high gain depending on the way auctions are assigned.

Table 2

Efficiency of the fist and last 10 ranked Auctioneers

Ranking	Net Auction Price/ Market Price	Auction Price/ Market Price	(commission+advertising)/ Market Price	# of auctions	# of Courts
1	0.798	0.908	0.11	8	4
2	0.778	0.935	0.157	7	4
3	0.768	0.86	0.092	6	4
4	0.761	0.849	0.088	2	2
5	0.759	0.805	0.046	8	4
6	0.74	0.746	0.006	4	3
7	0.721	0.799	0.078	5	4
8	0.715	0.846	0.131	13	5
9	0.713	0.717	0.004	4	3
10	0.711	0.788	0.077	3	3
49	0.59	0.674	0.084	15	6
50	0.582	0.666	0.084	7	5
51	0.58	0.665	0.085	12	5
52	0.577	0.608	0.031	12	5
53	0.561	0.711	0.15	6	4
54	0.561	0.633	0.072	3	3
55	0.555	0.687	0.132	6	5
56	0.538	0.623	0.085	9	4
57	0.517	0.584	0.067	3	2
58	0.474	0.526	0.052	2	2

4.2 Assignments and Fees

A first natural question is whether regulations on fees and auctioneer assignments are fulfilled. It is well worth to emphasize that the Law stipulates that the designation is to be made following the correlative order of the registrations, so that each auctioneer on register

should be designated with equal frequency. The data used to analyze the designations of 680 cases help to answer whether this is the case. Table 3 shows, for each court, the concentration of the auctioneers who conducted the most auctions. Since there are 76 registered auctioneers in each court, by strictly adhering to the law, each auctioneer should have a similar participation, and this should be in the order of 1.3% to 2.6% (due to the fact that auctions are relatively few).

As can be seen, each court concentrates the auctions in less auctioneers than what it corresponds legally, with concentrations exceeding by twice as much as it is permitted. Thus, on average, the auctioneers with the greatest number of auctions per court concentrate between 7% and 9 % of the auctions. This seems to reflect a preference for some auctioneers, which regardless of the legality, could affect the efficiency.

Table 3

Concentration of Auctioneers and Fees by Court

Court	C1 Theoretic 1	C1 Theoretic	Number of Auctions	Average Fees
21	8,45%	2,8	71	9,48%
23	7,41%	3,7%	54	10,94%
24	9,26%	3,7%	54	10,18%
25	7,84%	3,9%	51	9,36%
27	7,69%	3,1%	65	10,86%
29	5,19%	2,6%	77	10,23%
30	7,35%	2,9%	68	9,27%

Table 3 also shows the efficiency indicator (Net Auction Price / Market Price) and the average fee by court. The average efficiency of about 0.65 shows that the price finally received for those the law wants to protect is about 65% the market price. In turn, the average auctioneer's fees largely exceed the legal limit. Considering the average transaction values of the cars auctioned by the different courts (US$ 9,000), the legal fees should yield a maximum charge of about 4%; real fees, instead, were about 10%.

A natural hypothesis is that auctioneers' concentration could have a positive side if Courts assign auctions to the most efficient ones. To test that hypothesis, we run a regression where the dependent variable is the % of the auctions Court j assigned to

auctioneer i, and the exogenous variable is a measure of efficiency of auctioneer. The results of this regression presented in table 4 do not support the idea that the overrepresented auctioneers in each Court are the most efficient ones. On the contrary, the evidence for Courts 21st and 30th, shows a negative and significant coefficient associated with the efficiency variable.[6] In sum, the relatively large concentration that most Courts show in some auctioneers, it is never explained by efficiency reasons. On the contrary, this evidence is more consistent with model 2, that is, with the hypothesis that assignments in some Courts are the consequence of a collusive agreement between them and the auctioneers.

Table 4

Share of auctioneer i, in court j

	constant	efficiency	t test	R-squared	Adj. R-squared
J21	0,05565	-0,03119	-2,12	0,0611	0,0475
J23	0,03954	-0,00512	-0,37	0,0026	-0,0165
J24	0,05490	-0,01501	-0,74	0,0105	-0,0085
J25	0,04787	-0,01695	-1,06	0,0226	0,0026
J27	0,02054	0,02138	1,63	0,0403	0,0251
J29	0,03299	-0,00171	-0,20	0,0005	-0,0128
J30	0,05059	-0,02670	-2,06	0,0605	0,0463

4.3 Comparison between judicial auctions and private voluntary auctions

The average efficiency measures suggests that there prices received by creditors and debtors are substantially lower than the market price. Still, however, one could argue that this is because published market prices are not transaction prices. To test whether the reason the ratios of net auction to market prices are significantly lower than one obeys to the incentives associated with judicial regulation, we compare them with private auctions, which according to our model, are not subject to the incentives.

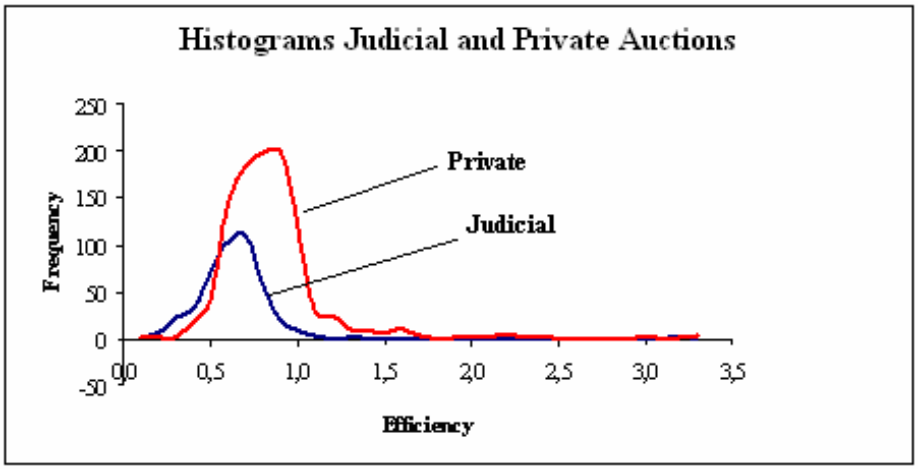
Using the information provided by Tattersall S.A., a company specifically aimed at conducting auctions of different kinds of assets, including vehicles, we first observe that private auctions on cars are significantly more efficient, having efficiency coefficients that on average are 0.9779 for the 1,038 auctions studied. That is, private auctions obtain an

[6] This result is very robust for different specifications and variables considered, including the amount of money considered, dummies for the main plaintiffs. Interestingly though, in a joint estimation, the main plaintiff, Mitsui, carries enough weight as to affect the Court decision on which auctioneer handles its car. Additional results are available on request.

average price that is 97.79% of the market price, whilst the most efficient Court obtains, on average, 70.1% of the market price. Figure 2 shows the histograms for both types of auctions, confirming a clear difference in favor of the private auction.

Figure 2

Efficiency of Private and Judicial auctions



To test the magnitude and significance of the difference, we run two regressions to explain the gross and net auction price. We use an integrated sample of the 440 judicial and 1,038 private auctions. Table 5 shows the coefficients of the double log regressions, so that the coefficient of the dummies for Courts is the percentage difference between the private auctioneer (used as a basis) and each Court. In addition to Court dummies, we considered the log of the market price. The results show that all dummy Court coefficients are negative and significant. More specifically, they show that judicial auctions, given a market price, are associated with a reduction in the price between 17.6% and 33%, compared with the price in private auctions. For all Courts, this difference is statistically significant.

Table 5

Price Cuts Associated with Judicial Auctions

	Ln (Auction Price)		Ln (Net Auction Price)	
	Coef	**Test t**	**Coef**	**Test t**
J21	-0,244	-5,97	-0,234	-5,08
J23	-0,316	-6,80	-0,330	-6,27
J24	-0,276	-5,95	-0,277	-5,31
J25	-0,203	-4,27	-0,202	-3,77
J27	-0,176	-4,12	-0,178	-3,67
J29	-0,250	-6,33	-0,255	-5,74
J30	-0,258	-6,20	-0,255	-5,45
Log Market Price	0,773	48,15	0,760	42,03
Const	3,226	13,59	3,280	12,29
R Square	0,6140		0,5480	
Adjusted R Square	0,6119		0,5460	

5 Conclusions

In this paper we analyzed judicial auctions, an institution that has widely recognized to limit the capacity of countries to develop businesses. The Chilean regulation reform on judicial auctions that took place in the early 1980s, had the purpose of reducing monopoly rents associated with practical monopolies and to control corruption. The reform opened the possibility to be an auctioneer, and limited the capacity judges to assign them. It also kept maximum fees. The new institutional setting though, had important negative incentives for judicial auctions.

We found systematic evidence showing that the protection which the regulator tried to give creditors by obliging them to resort judicial auctions has negative effects. On the one hand, Courts do not abide by the regulation assigning the auctions to the auctioneers as the law states, a regulation which attempts to avoid favoritisms and to enter into conspiracies with the auctioneers. This behavior is not prevented; furthermore, the evidence shows that for two of the seven Courts analyzed, the auctioneers overrepresented are those who perform worst.

We also found an infringement of the law regarding the fees charged, which exceed by far the limits imposed. As with the first, this second illegality would not be necessarily perverse from an economic point of view if they were to benefit the affected parties, that is, if they induced a better performance. This is not so and on the contrary, judicial auctions

end up providing a value for final consumers which is about 65% of what is provided by private auctions.

The evidence found on the basis of the data is on the verge of clientism and corruption. However, the recommendation does not lye necessarily here in forcing the compliance of the law, but in changing it. Evidently, forcing Courts to rotate auctioneers with no consideration to efficiency reduces the incentive to perform well. On the other hand, imposing an operative limit to fees also reduces the incentive to behave properly. A line to explore is to allocate judicial auctions using performance measures, like the ones we built here.

References

Abarca, P. (2006): “El monopolio legal del Conservador de Bienes Raíces,” Dissertation, School of Engineering, Pontificia Universidad Católica de Chile.

El Mercurio (2006): “Reportaje del Lunes”, May 15th.

Honduras (2003): “Attaining the goals of the poverty reduction strategy”, Progress Report, 2004-2006, Government of Honduras. http://www.sefin.gob.hn/pdfs.

International Transparency (2006): “Transparency Indexes,” Internet Document, webpage: http://www.transparency.org/policy_research/surveys_indices

Kaufmann, D. (2005): “Myths and realities of governance and corruption”, The World Bank, Chapter 21.

Klemperer, Paul (1999): “Auction Theory: A Guide to the Literature,” Journal of Economic Surveys, Nuffield College, Oxford University.

Levy, B. and P. Spiller (1977): Regulations, institutions and commitment: comparative studies in telecommunications, Cambridge: Cambridge University Press.

Llach, Ana María (1988): “Del carácter público de la función de los martilleros y su fiscalización”, Tesis (Licenciado en Ciencias Jurídicas y Sociales)--Universidad Católica de Valparaíso.

Paredes, R. and J. M. Sánchez (2004): “Government Concession Contracts in Chile: The Role of Competition in the Bidding Process,” Economic Development and Cultural Change, 53n no. 1:215-34.

Rules of the Tennessee Auctioneer Commission (2004): “Rules of the TAC, Chapter 0160-1 regulations of auctioneers.

Stone, A., B. Levy and R. Paredes (1996): “Public institutions and private transactions: a comparative analysis of the legal and regulatory environment for business transactions in Brazil and Chile”, in Empirical Studies in Institutional Change, Alston, Eggertsson and North, eds., Cambridge University Press.

Valdés, D. (2006): “Libre Competencia y Monopolio", Editorial Jurídica de Chile

Vickrey, W. (1961): “Counter speculation, Auctions and Competitive Sealed Tenders”, Journal of Finance, 16, 8-37

World Bank (2003): “Peru: Microeconomic Constraints to Growth, the Evidence from the Manufacturing Sector”, Poverty Reduction and Economic Management Department and Financial, Private Sector and Infrastructure Department Country Management Unit September 30, 2003.