

Registered Cartels in Austria - An Overview

Work in Progress

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Introduction & research approach

- study the micro-details of different legal cartels
 - ▶ which information do specific cartels exchange?
 - ▶ how do different cartels deal with non-compliance with cartel rules?
 - ▶ which internal organization do different cartels have?
- research approach
 - ▶ develop a coding protocol (Fink et al. 2014)
 - ▶ moving forth and back between the agreements and conceptual development of the categories, we ended up with around 200 categories
 - ▶ show simple descriptives on micro-details

Literature review

- Stigler (1964): collusion methods (quota, customer allocation, restrict secret price cutting)
- cross-section studies on exposed cartels, e.g. Harrington (2006)
- individual case studies on inner workings of cartels: Genesove/Mullin (2001); Röller/Steen (2006); Asker (2010)
- various studies on US National Industry Recovery Act (1933-1936) - inner workings and effects
- study on Finnish cartel registry - Hyytinen et al. (2014)
- recent theory, e.g.: Harrington and Skrzypacz (2011) on truthful reporting in quota cartels

Historical background

- until Austria joined the EU in 1995, cartels had been largely legal
 - ▶ ban on immoral contracts according to civil code (e.g. bidding rings)
 - ▶ non-registered cartels: subject to criminal law but lack of enforcement
 - ▶ small cartels ('Bagatellkartell') were legal per-se
- registry started in 1951; renewed registration in 1973, closed in 2006
- social partners (chambers of labour and commerce) had a decisive influence
 - ▶ appoint majority of judges in cartel court
 - ▶ appoint members of committee that assess cartels
 - ▶ parties in the cartel application proceedings, requests for cartel review:
 - ★ 53% chamber of labour (reviewed potentially damaging cartels)
 - ★ 1% chamber of commerce
 - ▶ monitor/regulate prices until 1980s (partly also until 1994)
- no rejection on lack of economic justification observed

Cartel registry

- typical folder includes an overview on the events of the cartel
- in addition, folder includes the contract and amendments to the contract
- registered contracts included:
 - ▶ participating firms
 - ▶ description of the objectives of the cartel and their justification
 - ▶ cartel's governance structure
 - ▶ decision making bodies
 - ▶ cartel rules
 - ▶ punishments or fines applicable
 - ▶ entry/exit and termination rules
- mainly manufacturing, some in retail, wholesale and services
- mainly Austrian wide, some only regional

Population of registered cartels across industries

- we exclude consecutive agreements that are not independent from earlier ones
- focus on 80 horizontal cartels
- properties of the population
 - ▶ most cartel registered already in the 1950s, re-registered in 1973
 - ▶ some cartels were registered after 1973 in order so solve some crisis (e.g. salmonellae caused a demand drop in the poultry slaughtering industry)
 - ▶ we do not observe cartels in the construction industry (bidding cartels were illegal)
- in general, prices are subject to approval

Population of registered cartels across industries

2-digits	NACE industry	# cartels	% of firms
15	Manufacturing of food prods and beverages	11	2%
17	Mfg of textiles	6	7%
20	Mfg of wood and of prods of wood ...	6	1%
21	Mfg of pulp, paper and paper prods	8	34%
26	Mfg of other non-metallic mineral prods	9	8%
27	Mfg of basic metals	4	19%
28	Mfg of fabricated metal prods ...	8	1%
31	Mfg of electrical machinery	4	11%
51	Wholesale and commission trade ...	7	2%
63	Support. and aux. transport activ. ...	2	5%
	Others	15	
45	Construction	0	
	Sum	80	

Note: 80 horizontal cartels were selected out of 99 different cartels.

How to analyze these cartel contracts?

- data structure
 - ▶ more than 100 binary variables, more variables than observations
 - ▶ many zeros
 - ▶ additional rules outside the registered agreement?
- focus on specific cartel clauses
 - ▶ *quota* cartels
 - ▶ *price* cartels
 - ▶ *payment conditions*
 - ▶ *specialization* cartels include agreements on products, customers, suppliers or territories.

Cartel clauses and combination of cartel clauses

Panel A. Main cartel clause	the clause		the only clause	
	#	%	#	%
<i>Quota</i>	37	46.3	10	12.5
<i>Price</i>	41	51.3	7	8.8
<i>Payment Condition</i>	44	55.0	13	16.3
<i>Specialization - Products, Custom, Territory</i>	26	32.5	7	8.8
Panel B. Specific combin. of cartel clauses				
<i>Quota+Price+Payment Conditions</i>			11	13.8
<i>Price+Payment Conditions</i>			9	11.3
<i>Quota+Specialization</i>			5	6.3
<i>Quota+Price+Specialization+Pay. Cond.</i>			4	5.0
<i>Other</i>			14	17.5
Sum			80	100.0

Cartel clauses and combination of cartel clauses

- 46% quota cartels, more than Hyytinen et al. (2014) - more similar to illegal cartels that rely more often on quotas (see e.g. Levenstein & Suslow 2011)
- registry offers insights into payment condition cartels that aim to restrict secret price cutting
- small size for specialization cartels made an aggregation necessary, Hyytinen et al. (2014) might offer a broader sample

Number of participants

	#	Mean	Std.Dev.	Median	Minimum	Maximum
quota	37	7.57	5.56	6.00	2	21
only quota	10	7.70	5.23	6.00	2	20
price	41	12.46	14.44	7.00	2	58
only price	7	12.43	14.07	8.00	2	42
pay.co.	43	13.84	16.63	7.00	2	76
only pay.co.	12	20.50	23.16	12.00	4	76
spec.	26	11.38	15.00	6.50	2	58
only spec.	7	13.00	19.43	5.00	2	56
all	79	12.42	15.36	7.00	2	76

Which cartels exchange which information?

	# of cartels	Regular Reports	Report on Request	Report via JSC*	None of them
		in % (row)			
quota	37	94.6	91.9	24.3	2.7
only quota	10	100.0	90.0	10.0	0.0
price	41	58.5	75.6	22.0	19.5
only price	7	14.3	28.6	28.6	42.9
pay.co.	44	56.8	81.8	11.4	18.2
only pay.co.	13	38.5	92.3	0.0	7.7
spec.	26	57.7	69.2	26.9	23.1
only spec.	7	14.3	57.1	14.3	28.6
# of contracts	80	46	61	12	14

*JSC = Joint Sales Company

Which cartels exchange which information?

- quota cartels need regular reports:
 - ▶ quantities, e.g. on a monthly basis
 - ▶ within a joint sales company
 - ▶ confirms existing theory - Harrington/Skrzypacz(2011)
- payment condition cartels require reports on request:
 - ▶ if a decision body asks, information has to be given
 - ▶ to best of my knowledge, no literature known
- some specialization and price cartels can do without information exchange.
 - ▶ sufficient public information or cheating accepted?

Which cartels do compensate and how?

	# of cartels	Carry-Over	Cash	Internal Sales	Customers/Orders	Joint Earnings	at least one
		in % (row)					
quota	37	40.5	67.6	21.6	45.9	2.7	89.2
only quota	10	20.0	90.0	30.0	40.0	0.0	90.0
price	41	29.3	29.3	9.8	24.4	0.0	46.3
only price	7	0.0	0.0	0.0	0.0	0.0	0.0
pay.co.	44	20.5	25.0	9.1	25.0	0.0	38.6
only pay.co.	13	0.0	0.0	0.0	0.0	0.0	0.0
spec.	26	23.1	34.6	3.8	23.1	3.8	42.3
only spec.	7	0.0	14.3	0.0	14.3	0.0	14.3
# of contracts	80	15	26	9	18	1	35

Which cartels do compensate and how?

- firms in quota cartels do compensate:
 - ▶ carry-over, cash, cartel internal sales and allocation of customers/orders are options for legal cartels
 - ▶ deviations are measured exactly via regular information exchange
 - ▶ confirms existing theory - Harrington/Skrzypacz(2011)
- cartels without quotas do not compensate
- how do the latter deal with deviations?

Which cartels do punish and how do they punish?

	# of cartels	warning	penalty	exclusion	at least one clause
		in % (row)			
quota	37	10.8	62.2	27.0	64.9
only quota	10	10.0	50.0	20.0	60.0
price	41	19.5	75.6	39.0	80.5
only price	7	14.3	57.1	28.6	71.4
pay.co.	44	18.2	77.3	47.7	86.4
only pay.co.	13	23.1	84.6	53.8	92.3
spec.	26	7.7	46.2	34.6	61.5
only spec.	7	0.0	28.6	28.6	57.1
# of contracts	80	12	51	30	59

Which cartels do punish and how do they punish?

- payment condition cartels do punish
 - ▶ impose penalty
 - ▶ exclude cartel member - create and accept an outsider?
 - ▶ 50% of only payment condition cartels require security deposits ('Kaution', 'Wechsel') for immediate punishment
- some price cartels do accept cheating?
- specialization cartels are most relaxed about contract-based punishment

Who takes decisions ... ?

	# of cartels	plenary meeting	committee	executive officer	authorized repr.	arbitration panel	av. sum of bodies
		in % (row)					
quota	37	81.1	48.6	5.4	16.2	91.9	2.43
only quota	10	60.0	30.0	0.0	10.0	100.0	2.00
price	41	90.2	51.2	4.9	24.4	82.9	2.54
only price	7	71.4	28.6	14.3	14.3	42.9	1.71
pay.co.	44	93.2	56.8	6.8	25.0	86.4	2.68
only pay.co.	13	92.3	76.9	15.4	15.4	84.6	2.85
spec.	26	76.9	42.3	3.8	11.5	69.2	2.04
only spec.	7	57.1	42.9	0.0	0.0	57.1	1.57
# of contracts	80	65	39	5	15	64	2.35

... on which issues ... ?

	Plenary Meeting	Other ¹	Arbitration Panel
Output	20		
Price	19	5	
Approval of Entry	28	8	
Exclusion	22	6	1
Penalties (Supreme Body)	5	2	62

Note: ¹Other includes staffed office, authorized representative or committee.

... by which majority?

	output		Observed required majority for				exclusion	
	#	Mean	#	Mean	#	Mean	#	Mean
quota	20	0.87	12	0.82	15	0.94	11	0.77
only quota	6	0.94			1	1.00	2	0.73
price	11	0.83	22	0.76	20	0.85	17	0.69
only price			2	0.71	1	1.00	2	0.59
pay.co.	9	0.90	17	0.77	22	0.73	20	0.69
only pay.co					7	0.53	6	0.67
spec.	6	0.74	6	0.76	13	0.91	8	0.72
only spec					4	0.90	2	0.78
all	20	0.87	22	0.76	34	0.80	29	0.70

Summary on decision taking

- decision making bodies
 - ▶ plenary meeting and arbitration panel most often used
 - ▶ specialization cartels and price only cartels are least complex in terms of bodies
- decision takers
 - ▶ output fixing is done solely by plenaries
 - ▶ price, entry approval and exclusion is sometimes delegated
 - ▶ arbitration panels are a conflict resolution mechanism that finally decide on penalties
- required majorities
 - ▶ near unanimity for output
 - ▶ cartels with only pay.co. care least about entry
 - ▶ quite low majorities for exclusion

Main findings on quota cartels

- 36 out of 37 are in manufacturing
 - ▶ often combined with other instruments, least often with payment conditions
 - ▶ smallest in terms of members
 - ▶ often required unanimity on admitting new members and output decisions
 - ▶ regular reporting, cash payments (transfer of orders, etc.) for compensation
 - ▶ some quota cartels punish not only for deviating conduct, but also for failure to provide (correct) information
- provisions for information exchange and reporting mechanisms as well as compensation schemes based on reported information are in line with Stigler (1964) and Harrington and Skrzypacz (2011)
- if a member leaves the cartel, quota cartels allow immediate exit by the remaining members, indicating the possible Nash reversal as a threat

Main findings on specialization cartels

- 26 agreements specifying allocation of products, customers, suppliers, territories
 - ▶ more than a quarter of them are export cartels
 - ▶ less concerned with avoiding secret price cuts such as favorable payment conditions or discounts
- overall the nature of the observed contracts confirms Stigler (1964)'s view of the simplicity of this collusion method, although it is an option only for specific and easily divisible narrow markets

Main findings on price cartels

- 41 agreements use instruments such as a fixed price, price floors, price books, common costing sheets or price adjustments
 - ▶ only seven cartels are pure price cartels
 - ▶ shortest contracts, more members than in quota cartels
 - ▶ some agree to an external reference price instead of fixing prices themselves
 - ▶ most often use further clauses to prevent secret price cutting such as specific rules on payment conditions or the liability of sales agents
 - ▶ norms for quality and lot size are most common
 - ▶ decision taking sometimes delegated to a body including not all members, required majorities are lower than for decisions on output in quota cartels
 - ▶ penalties are quite common

Main findings on payment conditions cartels

- 44 agreements
 - ▶ mainly combined with price clauses, often include clear rules on quantity or sales channels discounts and liability for sales agents
 - ▶ larger, have longer contracts and more decision bodies
 - ▶ two thirds have a central staffed office for management: information provision upon request; require ex-ante notification of supply
 - ▶ non-compliance with information exchange rule is often penalized
 - ▶ punishment – simple warning, monetary penalty or exclusion – most frequently specified, half of them require (sometimes unlimited) security deposits for immediate enforcement
 - ▶ never combined with some joint operations in R&D or advertising and rarely rely on norms
- aim preventing secret price cuts

Conclusions and steps ahead

- conclusions
 - ▶ provide qualitative and quantitative micro-details of cartels
 - ▶ improve understanding of inner workings of cartels
- next steps ahead
 - ▶ international comparison with Finland, Norway and Sweden - Genesove et al. (2015)
 - ▶ collect data on economic effects - entry/exit, prices/quantities