The Tip of the iceberg?

The probability of catching cartels

Also in this issue:
The value of pop music, antitrust injunctions and consumers in competition policy
Insufficient knowledge on the rate of cartel discovery may hinder effective enforcement, but the use of methods similar to those applied to make inferences on various wildlife population characteristics in ecology may help in overcoming this problem. Derived estimates show that less than one-fifth of all cartels are discovered.

Cartels are widely regarded as the most egregious form of anti-competitive practice resulting in serious losses to society in the form of higher prices, lesser quality, and/or reduced choice. Since 1990 the European Commission investigated cartel cases against 679 companies, which may seem like a large number but it would be useful to know how much of the iceberg lies below the water line, that is, what proportion of cartels remains undetected. Without this information we are unable to gauge the real magnitude of the harm caused by cartels and would struggle coming up with a sufficient deterrent. Finding this information, however, is a challenging task given that we would need to guess and make inferences on something that we never observe.

Let’s start with something simple
Although we do not observe all of the cartelising firms, we do observe a number of them, and some more than once, which turns out to be a very handy feature for what we are trying to do. Why? The answer is simpler than many would think. Imagine that you have an urn with a number of balls in it. Randomly pick ten balls and put a mark on them before replacing them in the urn. Now take a second draw – say ten balls again – and count the number of marked balls in your second draw. It is easy to see that the proportion of marked balls in the second draw could be used as an estimator of the proportion of all marked balls to the total number of balls. Because we know the proportion
of marked balls in the second draw, and we also know how many balls we marked in total, we should be able to get an estimate of how many balls are in the urn even though we never actually counted them.

Of course once we replace our imaginary balls with cartelising firms and the urn with the economy we might start having doubts about the applicability of this simple method because some firms do not stay in ‘the urn’, some may like to hide away in corners where they are less likely to be caught, and others may be positioned so that they ‘get picked’ with every single draw. Can we adjust the above simple method in order to account for as many of these factors as possible without having to make unrealistic assumptions about how cartels operate? The answer is yes, and the good news is that a lot of the work has already been done for us.

**Why reinventing the wheel?**
The work of ecologists and biologists in general may not be very exciting for most competition lawyers and economists but there are areas that may deserve more attention. In studying wildlife populations, ecologists face problems similar to the analysis of cartels and the urn and ball example given above. They need to estimate the population size of a given species without being able to count every individual. They trap some of the individuals, put a tag on them, release them and allow time for them to mingle with the uncaptured ones. When they trap another group of the same species, the proportion of tagged animals in the second captured group is used to make inferences on capture probability the same way as is done with balls drawn from an urn. Fortunately, the story does not stop here. Driven by the need to be able to handle more realistic scenarios, biometricians and statisticians have developed rigorous techniques to address issues more fitting to the analysis of living beings.

Therefore our job really is to find the analogies and apply these methods to economic agents. For example animals are born and die during the analysis, or migrate outside the analysed area. This is very similar to the situation one is expected to find for economic agents, i.e. firms can be wound up, or can decide to leave a market, and new firms can enter the same market throughout the sampling process.

Also, unlike the balls, neither animals nor cartels are identical. For this reason there are methods to account for the fact that some individuals are never caught because they live in an area where traps cannot be placed out, and also to allow capture probabilities to vary based on the characteristics of the individual. Capture-recapture methods also allow the distinction between individuals as being ‘trap-happy’ (increased likelihood of capture following previous capture) or ‘trap-shy’ (reduced likelihood of capture following previous capture), which is something one would expect in the case of cartels.

**In studying wildlife populations, ecologists face problems similar to the analysis of cartels**

**So what does the data reveal?**
Having established analogies between wildlife and the economy, the same methods were applied to cartels captured by the European Commission, and time-dependent detection rates were estimated for the period between 1985 and 2005. Figure 1 shows that we detect less than one-fifth of those cartels that would fall under EC jurisdiction. The rate of detection peaked twice in the analysed period. The first peak could be an effect of the introduction of the US leniency programme (1993) and the second one may be related to the introduction of EC leniency programmes (1996). The 20-year average of these annual estimates (13 percent) is similar to the constant detection rates estimated by earlier works. However there is an important comparative...
advantage of this method as the change of capture rate over time can now be estimated, which provides a convenient tool for more profound policy analysis.

How about deterrence? If finding the rate of detection was difficult, the statement is probably even truer for the deterrence rate of enforcement, as firms that are deterred from being involved in a cartel are, by definition, never observed. However, with the above detection rate estimates we can make inferences on at least the year-by-year change in the level of deterrence using the following very simple thought experiment. We know how many firms we capture, and therefore we know how this changes from one year to the other. If we see an increase in the number of captured firms, it could equally mean that we are becoming more efficient in capturing cartels (our detection rate increased) or we simply deter fewer cases and so even at a steady rate of detection we capture more firms. Using the detection rate estimates we can establish if a change in the number of detected cartels is caused by a changing detection rate or a shift in the rate of deterrence.

Using a formal calculation based upon this logic, Figure 2 shows that the deterrent effect of EC cartel enforcement was more or less steady until 1996, the introduction of the European corporate leniency programme, where we witnessed a considerable rise, and deterrence has been at the same level ever since.

Broader applications
Borrowing tools developed by ecologists enables us to venture into areas that we have previously not been able to fully explore. Given their simplicity, these adapted techniques could develop to be an important tool for cartel related policy analysis. Moreover, its relevance goes beyond the scope of analysing cartel enforcement, as it could be more generally applied to other areas of law enforcement that are characterised by high proportions of undetected illegal behaviour, such as corruption cases, drug offenses, tax evasion, or drink driving.

Figure 2: Deterrent effect of EC anti-cartel enforcement (1986-2004)

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1 CCP Working Paper 11-6

CCP 8th Annual Conference
What do Public and Private Sanctions in Competition Policy Actually Achieve?
14-15th June 2012

CCP’s 2012 conference will focus on the range of sanctions employed in competition policy, their effectiveness in promoting deterrence and facilitating compliance within the firm, and the relationship between public and private enforcement.

More information on this event will be on our website, www.competitionpolicy.ac.uk early next year.

Alternatively contact Leanne Denmark
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Injunctions – Mixing antitrust with contract disputes

Sebastian Peyer, CCP Post Doctoral Research Fellow

Injunctive relief is a powerful tool to enforce competition law but it often goes unnoticed because it is aimed at less severe antitrust violations. The deterrence effect can be substantial though. However, the frequent use of injunctive relief raises issues as to the interference of antitrust remedies with contract negotiations.

According to many policy stakeholders, firms and individuals are primarily interested in compensation when privately enforcing the antitrust laws. Empirical data from Germany and the UK suggest that this is not always the case. In these two jurisdictions, with notable private antitrust enforcement in Europe, plaintiffs often seek other remedies like, for instance, injunctions. These are court orders preventing the defendant from doing something, or asking the defendant to do or undo certain actions. Injunctions can be granted on a preliminary basis temporarily safeguarding the applicant's rights until the dispute is properly heard or on a permanent basis after a full trial. In almost all instances where injunctive relief is sought judges face a dispute not only over competition law but also over failed contract negotiations, for example, the conditions for licences or network access. In contrast to damages actions where judges deal with past harm, a decision on a request for injunctive relief shapes the relationship of the parties with direct effect for the future. This poses the question: What role injunctions should play in private competition law enforcement?

There are good reasons why plaintiffs frequently use injunctive relief. Damages actions only work well if a violation has caused an appreciable harm, making it worthwhile to bring a costly monetary claim. Cartel agreements are the best example of such a breach. However, most violations of competition law do not involve cartels. When victims seek
protection from anticompetitive vertical agreements or unilateral conduct, injunctions are an effective tool to remediate the plaintiff; especially against infringements where the disturbance is of continuing nature or the harm lies in the future. For example, if one party refuses to grant access to an essential facility or imposes discriminating conditions on a business partner. In contrast to disguised cartel agreements, which are often discovered many years after they were implemented, the potentially anticompetitive nature of vertical agreements or horizontal conduct becomes obvious almost instantaneously.

Injunctions are likely to be less costly compared to remedies based on loss or profit calculations because proving a wealth transfer is often resource intensive. For infringements which have yet to cause little damage to the plaintiff injunctions may have the better cost-benefit ratio. The cost advantage makes injunctions more suitable for the pursuit of smaller infringements. An injunction can also be used to establish an infringement and test the water before a potential damages action is launched. Finally, injunctions are probably closest to what the plaintiff really wants in certain circumstances, for instance, non-discriminatory contract terms or access to a facility.

The downside of injunctive relief is that judges become regulators of contracts as most of the antitrust issues are inevitably intertwined with failed negotiations. The owner of an important asset may exclude competitors for anticompetitive reasons. But it may also be that the parties could not agree on the terms and conditions according to which access should be granted. A multitude of distribution and franchise agreements contain vertical agreements which have at least the potential to breach Article 101 TFEU. If the upstream manufacturer in a selective distribution system decides to rearrange its sales system, it may not continue the contract with the downstream partner. German courts saw a wave of cases in which car manufacturers claimed that they had to reorganise their distribution channels to conform to the changes introduced with Commission Regulation 1400/2002. Consequently, contracts were not continued or were changed. The affected dealers sought injunctions based on competition grounds to reverse the changes while the manufacturers invoked antitrust law to justify them.

In those instances judges must decide whether or not they are willing to interfere with the parties’ negotiations. Firms which are denied access to an important input may face difficulties continuing their businesses. But there is also an interest to protect property rights and the freedom of action.

In a comparative study of German and English injunction cases conducted by the author, judges in Germany were found to be more willing to regulate contracts on competition law grounds. English judges have repeatedly stated that it is a rather difficult undertaking for a judge to decide what is best for the parties. In situations where plaintiffs face severe difficulties for their businesses or even the risk of bankruptcy, judges on both sides of the Channel do not take a very different approach.

The complications raise the questions about the role injunctions ought to play in a coherent system of public and private enforcement actions. The policy focus on damages actions has certainly not helped to address the interference problem of competition and contract law, especially when injunctions are involved. Despite some caveats, ‘injunctive relief’ is a commonly used remedy in German antitrust litigation and it has also been applied before the English courts. Injunctive relief seems like a low cost multi-purpose tool which is able to deal with a multitude of antitrust violations. It can help to avoid drawn-out and costly damages proceedings and may be a more efficient remedy for small scale and non-hardcore infringements. On the downside, judges are faced with the difficult task to free parties from their negotiation deadlock.

Putting a value on playing popular music

John Street, Professor of Politics

What public value should be placed on the broadcasting of popular music? What arguments are there for using the BBC’s licence fee to pay DJ’s to play songs by Adele and Lady Gaga? This article considers the Corporation’s latest contribution to the debate about the funding of its popular music stations.

What is Radio 1 DJ Chris Moyles worth? To the popular press, this simple question has a simple answer: his annual salary (a reported £600,000), and the accompanying thought that this is a great more than he deserves.1 To the BBC, his employer, the answer is more complicated. In 2008, the BBC’s management drew attention to the disc jockey’s 13 million weekly listeners, his 550,000 Facebook friends and the 600,000 downloads of his show’s podcasts. ‘Chris Moyles’, the BBC management wrote, ‘is an original and innovative presenter whose observations on real life and popular culture aim to reflect the experiences of his listeners’.2 For the BBC, his value did not just lie in the size of his audience, but for the fact that this audience could then be exposed to public service content – from news to new music; content that informed and educated, as well as entertained.

The public service defence of Chris Moyles is in keeping with the BBC’s traditional line. In a report published earlier this year, it spoke of its popular music output as diverse, innovative and challenging.3 It was about public value as much as populism. But recently the BBC has begun to develop a further line of defence, one which stresses the commercial value of its contribution. In September, the BBC issued Helping drive growth in UK creative economy, in which the rationale for Radio 1 included its contribution to the UK music industry.4

Defenders of public service broadcasting find it easy enough defend spending on drama and classical music; they have a problem when it comes to music by Lady Gaga or Adele.
with defending drama and classical music, and the commitment of public money to their provision. The problem comes when the output seems to resemble commercial radio and to consist of playing music by Lady Gaga or Adele. How to justify the commitment of public funds to this, especially in times of increasing BBC commitments and cutbacks?

There are many voices urging that the BBC’s two leading music channels, which between them have an annual operating expenditure of £107 million, be closed. 

Sir John Tusa, the BBC Trust chairman, expressed his concern that 6Music was in danger of becoming a Listeners’ Channel. He wondered: “How can the BBC justify spending £107m on music channels when it can’t justify spending £107m on other genres of programming?”

The BBC’s executive director for content, Tony Hall, has said that the BBC’s music content is in danger of being squeezed. “The BBC is facing a difficult decision on its music channels. We have seen the appetite for music on radio decline significantly.”

Changing the Channel (2009) is a recent statement assigned to the free market. The Policy Exchange’s report, Changing the Channel (2009) is a recent statement of the privatisation argument. In the run-up to the 2010 General Election, it was reported that the Conservative Party would do just this, a rumour that was swiftly denied by Ed Vaizey, perhaps mindful of the outcry that greeted the Corporation’s plan to close its minority music channel 6Music.

Nonetheless, while the immediate prospects of privatisation remain faint, the possibility will not disappear, especially as budgets tightened and as internet radio and streaming services like Spotify proliferate. When everyone can be their own DJ, who needs Chris Moyles and his colleagues? Or put another way: what is the best defence – if any – of publicly provided pop music?

From a historical perspective, the BBC’s role in providing popular music remains, as we’ve seen, in Lord Reith’s injunction to inform, educate and entertain. But even then, in its earliest days, the BBC was a substantial source of revenue to the commercial music industry through its payment of royalties, although this was rarely noted. Later, in 1967, Radio 1 was itself founded as a direct consequence of the ending of an illegal market in popular radio, provided by the so-called pirate ships Radio Caroline and Radio London.

History may explain the BBC’s provision of pop, but it does not justify it. The latter depends on claims about the quality of the music and the BBC’s contribution to this. Here the argument turns to the space the BBC created for The Beatles to develop their unique sound on shows like Brian Matthew’s Saturday Club, untroubled by the demands of advertisers for ratings and for music that conformed to the industry norm. When the Radio 1 DJ John Peel died, many of the tributes honoured his public service role: the way he educated his listeners in new sounds, and how, in turn, he created the opportunity for innovative groups like the Pink Floyd, the Smiths or the Sex Pistols to reach a larger audience. While such arguments turn on contentious claims about quality (about the rival claims of the Smiths and the Smurfs), a recent US study has argued that the de-regulation of the US broadcasting system has failed to increase the range of music available to listeners.

The BBC continues to highlight the diversity of its output and the space it allows to new music. Research by the Performing Rights Society (PRS) identified the BBC as a major source of revenue for UK songwriters, with 6Music in particular providing an airing to composers and performers who would otherwise go unheard. But the PRS, in making this case, were looking to the commercial value of the BBC’s contribution, a consideration that the Corporation is increasingly keen to highlight as the agenda shifts to impact and value for money.

In its most recent report, the Corporation, like other public bodies, particularly in the culture industry sector, wrestle with the arguments that best justify their existence. The BBC’s arguments for its contribution to the creative economy are impressively detailed and cogent, pointing as they do to the income streams they generate and the opportunities for innovation they create. But couching the argument in these terms is not without its risks. While the commercial argument is framed by the public value one, it opens up the possibility that other, more efficient routes to the same (commercial) goal may emerge, weakening the public service case. Inviting critics to debate the commercial value of the BBC may allow the traditional defences to be marginalised.

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1 Daily Star, 13 July 2011
2 BBC Executive’s submission to BBC Trust’s Review of Content and Services for Younger Audiences, 16 December 2008, p. 28
3 BBC Trust Report 2011
4 Helping drive growth in the UK creative economy: A Report by the BBC, September 2011
5 M. Oliver, Changing the Channel: A case for radical reform of Public service Broadcasting in the UK, Policy Exchange, 2009
9 J. Street, ‘The popular, the diverse and the excellent: political values and UK cultural policy’, International Journal of Cultural Policy, 17(4), 2011, pp.380-393
Consumers in Competition Policy –
A Review of CCP’s
7th Annual Conference

Catherine Waddams, Professor of Regulation

CCP’s 2011 annual conference debated evidence on consumer behaviour and bias from real world markets and how these might be taken into account in designing institutions and the way choices are presented. Economic, legal and political scholar perspectives were combined to provide lively and policy relevant discussion.

How consumers behave in markets was the focus for discussion by the 100 delegates at CCP’s 7th annual conference in June. Discussions involving economists, legal scholars and political scientists addressed the issue which is receiving increasing attention nationally and internationally. As conference speaker Kati Cseres (University of Amsterdam) reminded us, the idea that consumers not only benefit from competition, but they activate it has become well established in recent years, and she addressed the activating role of consumers in competition law from a broad legal and economic concept of participation. But robust and disinterested evidence from real market transactions is not always easy to find, so CCP invited researchers who had undertaken or analysed ‘field experiments’ to bring us evidence from real markets, and legal and political scholars to assess the implications for law, institutions and practice.

David Reiley (Yahoo Research) explained that Yahoo had tested the effects of its advertising with a carefully designed experiment in which some people who logged on were shown advertisements, and a matched group were not, overcoming many of the difficulties with more traditional marketing trials. They found that online advertisements affected both online and offline sales, even among those who hadn’t clicked on the advert for further information. Consumers under 34 were much less affected than those who were over 65. Christine Jolls, (Yale Law School), then reported that consumers consistently underestimated their own likelihood of being adversely affected from potential side effects of a pain relief treatment.

Two papers throughout the conference explored attitudes to switching electricity supplier: Steve

“Making markets work well for consumers”
(UK Office of Fair Trading)
Puller (University of Texas) told us that in Texas, households missed out on savings of $7-$10 per month. He found that search and switching costs are important, with only an eighth of households actively considering their options in a two month snapshot. The incumbent had a ‘reputational’ advantage, even with those who were new consumers, but this advantage varied by neighbourhood, and faded over time. Although many energy consumers in the UK were also inactive, the time they thought they would have to spend finding better deals and switching was much less important than the positive effect of potential gains. The most recent CCP work by Graham Loomes, Catherine Waddams and Catherine Webster also identified that the well established tendency of consumers to switch in one market if they had already done so in another was related to intrinsic consumer attitudes rather than to their experience in other markets – equivalent to a nature not nurture effect.

Florian Zettelmeyer (Northwestern University) showed how providing more information about second hand cars had enabled much better matching between buyers and sellers, to the benefit of both parties. In another aspect of car purchases, Meghan Busse (Northwestern University), showed how the US scheme to subsidise the trade in high petrol consumption cars in July-August, 2009 had indeed resulted in increased fuel efficiency of the US fleet, and that buyers had benefited from the rebate as much as dealers. Gunnar Trumbull (Harvard Business School) showed that rather than regulation being introduced as a response to market failure, regulation itself can sometimes shape the markets. He related the development of consumer credit had developed in France (where credit was seen as reducing purchase power) and the US (where it was regarded as a form of welfare policy).

Such evidence is crucial in deciding appropriate policy for different markets, a theme explored by Adam Land (UK Competition Commission). The CC had introduced measures to reduce search and switching costs facing consumers in several recent in depth market investigations under the Enterprise Act 2002. He focused on key issues and remedies in the recent Payment Protection Insurance market investigation, and their implications for broader themes about the relationship between consumer and competition policy. Luke Garrod (previously at CCP, now at Loughborough University) responded by exploring knowledge of appropriate policies to help consumers make ‘good’ decisions at the point of sale, for example about the purchase of related products such as extended warranties on white goods or Payment Protection Insurance when loans are arranged. He cited CCP work for the OFT1 which showed much less research into consumer behaviour at the point of sale than on information/comparisons or switching, and called for the development of theory and empirical evidence to inform future policies.

So what were the implications for the kind of interventions which Adam had described for policy and for how markets should be designed? Should consumers be helped to make better decisions (in their own interests) by being ‘nudged”? Christine Jolls (Yale Law School) presented both empirical evidence of biased consumer behaviour and strategies for debiasing through law in response to such biases. She argued that debiasing through law has the potential to correct consumers’ mis-estimation and misperception while preserving consumer sovereignty. But Bob Sugden, (CCP), argued that the nudge approach had been ‘oversold’: trying to ‘nudge’ individuals towards what they would have chosen had they not been subject to some limitations of rationality was undesirable because nudgers possessed inadequate...
Empirical Findings

So what do we know about consumers and the choices that they make?

- Online advertising does work – especially for older consumers.
- Consumers are optimistic in assessing their own health risks.
- US energy consumers leave around $100 a year ‘on the table’.
- Nature rather than nurture seems to drive consumer activity.
- Better information can improve outcomes for both buyers and sellers in auctions.
- Culture and attitudes determined the development of credit in France and the US.

Guidance for what the ‘desirable’ outcome would be. He saw any such approach as inescapably normative, allowing the nudgers’ conceptions of well-being to override those of nudgees. Michael Harker (CCP) and Judith Mehta, (CCP), argued more pragmatically for caution in implementing any nudge programme, perhaps taking a middle way between Christine’s advocacy and Bob’s reservations, and pleading for the development of a more coherent, principled and practical framework for judging the efficacy of debiasing strategies. Until such a robust methodology for the analysis of welfare before and after interventions had yet been developed, any interventions should be introduced with care.

Geraint Howells (University of Manchester) explored the application of “nudge theory” to default options, for example in requiring consumers to tick boxes for not sharing information, and discussed recent proposals not to make consumers pay for pre-ticked optional extras. Many consumer rules are based on legitimate expectations, raising issues of how far such expectations can be manipulated. Geraint argued that applying behavioural economics in the legislative and regulatory process is an extension of the conventional approach; but the scope for using behavioural economics effectively in the courtroom may be more limited, given traditional views on expert evidence and the problem of funding experts.

From the legal institutional perspective, Spencer Weber Waller (Loyola University Chicago) argued that competition and consumer protection law are intimately related; two sides of the same coin of consumer sovereignty and hence economic justice. He urged closer integration of the two bodies of law, which he suggests would be in the interests of consumers.

The conference provided valuable evidence and perspectives from different approaches to inform the development of institutions and policy to enable consumers to make markets work well for themselves.

1 Ref to 2008 OFT report Garrod et al

Left: Participants at CCP annual conference.
Director’s Letter: News from CCP

Morten Hviid

During the past six months, the CCP highlight was unquestionably the annual conference on the important role consumers play in making markets work, which is described in full in this bulletin. As this bulletin goes to press we are looking forward to the ESRC Festival of Social Science, with CCP’s event ‘How smart do you shop?’ held over two days at The Forum in Norwich. Read all about how it went, and other CCP news and events on our new website, which can be found at: www.competitionpolicy.ac.uk

For me another highlight was the work that went into our response to a BIS consultation ‘A Competition Regime for Growth: A Consultation on Options for Reform’, on the future of competition law enforcement in the UK. Each chapter was discussed among a group of CCP members with the core of each discussion reported on in the blog and included in our submission. This was not just fun but also highly relevant.

CCP has joined the Centre on Regulation in Europe (CERRE), a research collaborations between regulated industries, regulators and academic institutions, with Catherine Waddams as the link between CCP and CERRE.

Since the last Research Bulletin we welcomed Yan Li who has joined Norwich Business School as a Lecturer in Strategic Management and Anna Rita Bennato who has joined CCP as a Post Doctoral Researcher. We also welcomed Nikolaos Zahariadis, from the University of Alabama, who visited the Centre from May to June as an ESRC-funded visiting scholar and Michael Turco, as Centre Manager, who is covering for Suzy Adcock during her maternity leave. We said goodbye to Post Doctoral Researcher Luke Garrod, who has been appointed to a lectureship in the School of Business and Economics at Loughborough University and to Assem Dandashly who will take up a position as a Postdoctoral Researcher in Berlin.

Recent CCP Working Papers

How big is a tip of the iceberg? A parsimonious way to estimate cartel detection rate
Peter Ormosi, CCP Working Paper 11-6

Injunctive Relief and Private Antitrust Enforcement
Sebastian Peyer, CCP Working Paper 11-7

Disqualification Orders for Directors Involved in Cartels
Andreas Stephan, CCP Working Paper 11-8

Does Retail Advertising Work? Measuring the Effects of Advertising Sales via a Controlled Experiment on Yahoo!
Randall Lewis and David Reiley, CCP Working Paper 11-9

Credit Access and Social Welfare in France and America
Gunnar Trumbull, CCP Working Paper 11-10

Storing Wind for a Rainy Day: What kind of Electricity Does Denmark Export?
Richard Green and Nicholas Vasilakos, CCP Working Paper 11-11

Tactical Dilatory Practice in Litigation: Evidence from Merger Proceedings
Peter Ormosi, CCP Working Paper 11-12

Cartel Ringleaders and the Corporate Leniency Program
Iwan Bos and Frederick Wandschneider, CCP Working Paper 11-13

Collusive Price Rigidity under Price-matching Punishments

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