Reform of the UK Institutions
Enforcing Competition Policy: Unfinished and Inevitable

Also in this Issue
The Challenge of Engaging the Disengaged - 7
Algorithms, Personalised Pricing and the Ultimatum Game - 11
The Importance of Advancing the Debate on Competition in Education Systems - 15
Competition and the Environment: Bidding Processes Awarding State Aid for Renewable Electricity - 19
Discussing the impact of Scotland’s ban on multi-buy promotions for alcohol - 24
Standards for economic evidence in horizontal merger cases after Hutchinson/O2? - 28
The Centre for Competition Policy is the UK’s leading inter-disciplinary centre focused on competition, regulation and consumer policy. We conduct independent policy-relevant research, organise bespoke professional development and provide specialist events such as conferences, workshops and seminars. We are a forum bringing together experts, government officials and practitioners from the fields of business, economics, law and political science to create and communicate high-quality research.
Reform of the UK Institutions Enforcing Competition Policy: Unfinished and Inevitable

Bruce Lyons, Professor of Economics

The UK competition regime was fundamentally changed at the turn of the Millennium. Competition replaced a public interest test, some aspects of anti-competitive behaviour were quasi-criminalised, and the institutions became determinative, i.e. politicians no longer made the final decision. There was some reform of the institutions charged with enforcing this new approach, but not enough. One consequence has been too few cases to establish useful precedents. This article suggests a way forward.¹

Significant change at the Millennium

Around twenty years ago, two Acts (Competition Act 1998 and Enterprise Act 2002) brought about three fundamental changes to the UK competition regime:

1. ‘Competition’ replaced ‘public interest’ as the test for whether mergers, agreements between firms, or business practices by firms with dominant market shares should be allowed to proceed. Competition was also the test for the new tool of market investigations. This shifted the regulatory focus explicitly to the economic effects of business practices.

2. Anti-competitive agreements and the abuse of a dominant position were prohibited and made subject to substantial financial penalties. This introduced ‘quasi-criminalisation’ as these penalties go beyond the restitution of consumer losses. Additionally, the new market investigation regime created powers to impose highly intrusive remedies on firms that had not broken any law, including the possibilities of price controls and break-ups. At the same time, the Human Rights Act (1998) gave legislative backing to the right of corporate bodies to receive a fair hearing.

3. The Office of Fair Trading (OFT) and Competition Commission (CC) replaced the Secretary of State (SoS; i.e. the senior business minister) as first instance decision makers. The SoS was removed from case decision making, other than for rare public interest exceptions. Previously, the OFT and CC had reported their assessment of evidence alongside recommendations for action, but it had been for the SoS to decide what actions to take. Now, unelected competition experts were to become decisive in the use of these new powers.

These were major changes, which needed complementary reform of the institutions enforcing the new body of competition law. Reform was started with the creation of the Competition Appeals Tribunal (CAT), followed by the merger of the OFT and CC to form the Competition and Markets Authority (CMA). But reform remains incomplete, and this has compromised effective enforcement.

The importance of institutional design

Institutions provide the foundations on which the enforcement of substantive law is built. Deficient foundations can cause the edifice to crack. Institutions are where decisions are made – they frame decisions, determine who makes them, and provide safeguards against arbitrary or biased outcomes. Figure 1 sets out the key stages of decision making, from deciding which cases to take forward (phase 1) for in-depth investigation (phase 2), and consequent decisions as to whether

Phase 1: Case selection
Phase 2: Case investigation
First instance decision:
- Inquisitorial or Prosecutorial
- Individual or Group
- Executive or Independent

Potential appeal:
- Merits vs Judicial Review

Figure 1: Key stages of case decision-making
business practices have harmed competition and, if they have, the appropriate penalties or remedies (first instance decision). The UK has an inquisitorial system in which the first instance decision-makers oversee the phase 2 investigation. The alternative in some other countries (e.g. the USA) is for the phase 2 investigating body to prosecute its case before a court or tribunal, who become the first instance decision-maker. In both cases, protection of due process is provided by rights of review or appeal.

There is no global consensus as to an optimal institutional design, but there are well-understood pitfalls that any system must avoid. One is confirmation bias, which happens if an early view is formed as to the anti-competitiveness of a business practice. If this view is carried through to the phase 2 investigation, evidence may be selected or interpreted to support the prior belief. Institutional design can help guard against this natural psychological tendency. Decision stages can be separated so different people decide at phase 1 and phase 2; or there may be separate phase 1 and phase 2 institutions. Independence of opinion is facilitated by decision-maker appointments for a fixed-term without possibility of renewal. This contrasts with executive decision-making where the executive hierarchy raises career concerns, particularly if your decision goes against what your boss thinks is right. Another feature is group challenge, which is greater in a non-hierarchical group with relevant experience from diverse backgrounds. Another institutional feature to consider is the access of those being investigated to present their business view to decision-makers.

These design features determine the incentive and ability of the institutional arrangements to reach correct, efficient and speedy decisions. The institutional procedures must also be seen to be fair, with the depth of appeal reflecting the independence and expertise of the first instance decision-making, and the seriousness of the decision’s consequences. The broad choice in institutional design is between judicial review (JR) and merits appeal. JR addresses the lawfulness of the decision – whether it is illegal, irrational, procedurally inappropriate or disproportionate. If not, the case can be referred back to the original decision-making body for further consideration. A merits appeal additionally addresses the correctness of the decision and the appeals body may replace the original decision with its own.

The limited evolution of UK competition institutions

UK competition institutions were first established in the mid-20th century and their original design was appropriate for the stage of investigation and type of decision then being taken. For example, the OFT was a phase 1 body and decisions were taken by an individual director-general. The forerunners to the CC were phase 2 investigators and their recommendations had to be accepted by the SoS if they were to be enforced. When competition law was transformed twenty years ago the institutions were slow to adapt. This should not be surprising because the same applies to institutions throughout politics and the economy. Douglass North won his Nobel Prize for research confirming this:

“Institutions typically change incrementally rather than in discontinuous fashion... Although formal rules may change overnight as the result of political or judicial decisions, informal constraints embodied in customs, traditions, and codes of conduct are much more impervious to deliberate policies.”

When the OFT and CC were merged to form the CMA, the new authority was established with an enforcement directorate (i.e. the old OFT) and a markets and mergers directorate (i.e. the CC). There were no substantial changes in the style of decision making. In particular, the new prohibitions were investigated in both phases within the same institution and decided by executives without sufficient internal checks and balances. Although the CAT had been established as a new appeals body, the CMA has come to see it (unfairly) as “Byzantine” and wants to reduce the standard of review of the CMA’s enforcement decisions. The CMA would do better to reform and rationalise its own decision-making procedures to improve its inadequate record in establishing a body of precedent on antitrust cases.

The potential for institutional reform

In Figure 2, approaches to first-instance decision making are set out, each of which can find a history in the UK’s competition regime. The first two columns summarise the similarities and differences between the two CMA directorates. Both follow an inquisitorial approach in that the decision group oversees the phase 2 investigation. The third column summarises what a prosecutorial model might look like, with the CAT changing from an appeals tribunal to making first-instance decisions for cases prosecuted before it by the CMA (akin to the 20th century Restrictive Practices Court, RPC). The final column returns the decision to a politician (SoS). While political decisions can be justified for a ‘public interest’ test, they have little to recommend them for an effects-based competition regime (not least due to the time constraint for a busy SoS with wide policy responsibilities). So, I focus on the first three options.

Of the two inquisitorial approaches, the CC/CMA (markets and mergers) approach has the advantage of much greater independence and challenge through diversity than an OFT/CMA (antitrust) executive-led group. Access in the CC/CMA model comes through inquisitorial hearings with the senior management of the firms under scrutiny. Interestingly, two regulators with concurrent antitrust powers (the Financial Conduct Authority and Ofgem) follow versions of the former approach by establishing independent decision panels. A properly designed inquisitorial approach with fully independent expert decision groups would justify a less intrusive judicial review than the current merits appeal for the CMA’s antitrust decisions. The alternative would be a switch to an RPC/CAT prosecutorial approach, which is less flexible, and more reliant on cross-examination of expert witnesses (instead of inquisitorial hearings). If the CMA does not reform itself by rationalising to the CC/CMA model, its failure to establish sufficient precedent and the need to tackle more and bigger cases post-Brexit, may lead to a prosecutorial model being thrust upon it.


The Challenge of Engaging the Disengaged

Amelia Fletcher, Professor of Competition Policy

Why do consumers become disengaged from effective decision-making, and how can we improve engagement and market outcomes? This article considers the latest developments in this area, and discusses recent insights on tools for enhancing engagement.

Inactive consumers have received a lot of attention in recent years. In its 2018 super-complaint, Citizens Advice coined the term 'loyalty penalty' to describe the higher prices that inactive consumers can face. We have also seen a variety of policy interventions to engage consumers, or protect disengaged consumers from exploitation, such as the 2019 price cap on default energy tariffs.

Why does engagement matter?

It is increasingly recognised that competitive markets only deliver good consumer outcomes if both the supply- and demand-sides of the markets work effectively. An effective competition policy therefore needs to address demand-side limitations as well as supply-side issues.

Over recent years, policymakers have increased their understanding of the barriers to consumer decision-making which underpin these demand-side limitations.

Three elements have been highlighted, the three 'As' of consumer decision-making:

1. Consumers need to Access information about the products available. Where asymmetric information between suppliers and consumers exists, disclosure obligations can help.

2. Consumers then need to Assess this information, comparing products and determining which best suits their preferences. This can be assisted by reducing consumer search costs. The format of disclosures may be standardised to ease comparisons, or disclosure to third parties such as price comparison websites (PCWs) be required.

3. Finally, consumers need to Act, by purchasing or switching to their preferred product. Interventions can help by making the process of moving supplier cheaper or easier.

Why is it hard?

There is increasing recognition that, while the interventions above may be necessary, they may not be sufficient. You can lead a consumer to better decision-making, but you can’t make them use the tools on offer.

Why? Because consumers exhibit cognitive limitations and behavioural biases which can have a powerful influence. For example, disclosing information can create information overload and worsen decisions.

This has led to a focus on policy design to address the three 'As' that allow for the decision-making of real consumers, as opposed to their hypothetical, fully rational counterparts.

For example, there has been more focus on smart disclosures that are sufficiently clear, prominent and timely to really aid decision-making. Also, more attention has been given to interventions that address psychological blockages to switching. For example, Ofcom now requires that telecoms consumers can switch without having to first phone their existing supplier.

There have also been welcome move towards trialling policy interventions on real consumers. In several cases, these trials have found proposed interventions to be strikingly less effective than expected.

The fourth ‘A’ of consumer decision-making

It has also become obvious that, before many demand-side interventions become relevant, a fourth ‘A’ is important:

1. Consumers have to Attend to a market in the first place. If consumers are disinclined to engage at all, none of the other ‘As’ occur.

Consumer inattention is a particular concern where there is an ongoing relationship between the consumer and a firm, such that payments continue despite a lack of attention. Beyond the utility sectors, these are commonly known as ‘subscription products’.

Here, market outcomes may reflect the relative attention of different consumer groups. Firms compete by offering low-price (or high-quality) products to win or retain more engaged consumers, while supplying inactive customers with high-price (or poor-quality) products.
Inattention is also relevant where consumers make new purchases, if they focus only on certain salient features. Market outcomes can reflect relative salience, with competition focused on the most salient aspects of a product offering, and firms acting in a more monopolistic manner towards the less salient aspects.

Often upfront prices are most salient and so will be set low, while terms and conditions or longer-term charges are less salient and so can end up being unattractive, or even exploitative. Unless carefully designed, PCWs can exacerbate this issue.

Engaging the disengaged

So how does one deal with consumer inattention? First, inattention can be a conscious decision. For example, I could actively decide not to worry about certain fees I pay knowing that engaging in the market will take time and energy, while the benefits are small and uncertain.

However, being a conscious decision, my choice may be altered by a change in the relative costs and benefits of engaging. Here, consumer attention may be increased through traditional demand-side interventions making it cheaper or easier to search and switch.

However, consumer inattention can also be an unconscious non-decision. I may have intended to switch my bank account at some point, but I always put it off to tomorrow.

For unconscious inattention new tools are required. These fall into four categories:

1. **Engagement triggers** These use salience to make the unconscious conscious. For example, if information is made salient at just the right time, a consumer may act. The requirement on UK banks to send texts to consumers slipping into their overdraft is a good example.\(^5\)

2. **Choice architecture** This requires suppliers to change the way choices are framed, ideally requiring consumers to make more active and holistic choices. One example is the 2014 EU legislation banning pre-ticked boxes to sell add-ons.\(^6\)

3. **Changing supplier incentives** to better align with consumers. For example, the 2012 UK ban on commissions for independent financial advisers reduced advisers' incentives to offer investments paying them the highest commissions, but which were not necessarily the best for investors.

4. **Outcome control** At one end of the spectrum, general consumer law requires that non-salient terms and conditions are not unfair. At the other end, there is direct price regulation such as the energy tariff cap. Between these we might include ‘relative price’ or ‘non-discrimination’ rules.

These interventions are being debated across a range of markets and they are starting to take centre stage relative to other demand-side interventions. However, their design and implementation is far from straightforward, and there is relatively limited evidence on their efficacy.

At the same time, the growth of the digital economy is creating new issues, but also offering new solutions. There is a risk of ‘dark patterns’ within website and app design harnessing behavioural biases to exacerbate consumer ‘mistakes’. However, there is also the potential for personalised ‘robo-advice’ (automated advice employing algorithms), especially if consumers can ‘port’ data from their existing suppliers to advisers.

None of this is easy, but the challenges are exciting, and UK regulators are at the forefront of much of this thinking.

---

1. This article is based on Fletcher A, 2019, ‘Disclosure as a tool for enhancing consumer engagement and competition’, Behavioural Public Policy, and is an edited version of an article in Owea’s Agenda in June 2020.


The personalisation of prices by algorithms has attracted significant attention, but its prevalence and implications are still to be fully understood. The following discussion raises questions for further research, if consumers facing personalised prices are behavioural rather than fully rational.

A concern expressed by several competition agencies and regulators is that algorithms can learn so much about us they can engage in individualised pricing. Knowing what my willingness to pay is, the algorithm will make me a take-it-or-leave-it offer which will divide the gains from the transaction between the seller and myself. If the consumer is rational and the algorithm maximises profits, the offer will give almost all the gains to the firm, leaving the consumer with just enough that it is still worth accepting the offer. How realistic is that picture?

### Personalised pricing and the Ultimatum Game

This scenario looks like a game called the Ultimatum Game, used by experimental economists exploring attitudes to fairness. In the Ultimatum Game two people have to divide an amount of money, say £20. The proposer of the division can suggest any split of the money. The other player can then either accept, in which case the proposed split is implemented, or reject in which case both players get nothing. If players are rational, the expected outcome (a Nash equilibrium) involves the proposer offering the other player the smallest positive amount possible. However, the outcomes of experiments are very different, with a typical split closer to 60-40.

If, and it is a big if, personalised pricing can be viewed as an Ultimatum Game, and if consumers facing personalised pricing react like the subjects in the experiments, some things would follow:

1. The algorithm will not identify the consumer’s willingness to pay, but their willingness to accept a personalised offer.
2. Each consumer will likely pay a price different to that of other consumers.
3. The consumer will retain a significant share of the gains from the transaction.

If this characterises the effect of personalised pricing, then there is less to dislike about it than some proclaim. Compared to first-degree price discrimination, everyone who could benefit from trade still purchases the product, so total surplus is maximised. However, unlike first-degree price discrimination only some of the surplus goes to the firm.

The thought experiment does, however, highlight a number of ways in which the Ultimatum Game is a poor fit with reality. There are at least three issues.

First, in the experiment both participants know the amount to be split. Second, the interaction between firm and consumer may be repeated. Third, there may be more than one proposer, i.e. there may be competition.

### Challenges for consumers to assess the gains from trade

A fundamental challenge is to understand how consumers might assess the gains from a transaction that are to be divided. Formally, the gains available are the difference between the utility a consumer derives from consuming the product and the marginal costs of producing it. Consumers may have some idea about the former, but have to estimate the latter. Available information to estimate costs might be past prices paid, the prices of other firms, the prices offered to other consumers or, if it exists, the price of a ‘standard’ product. If these other prices determine a consumer’s assessment of a ‘fair’ price, the algorithm would have to disentangle this, including identifying, and giving appropriate weight to, the comparator prices. Since all prices may interact in a complex way, solving for the full set of individualised prices is a complex problem. Is this a tractable problem? Or is an approximation good enough for an algorithm?

The previous paragraph assumes product characteristics are fixed across consumers. However, firms may also want to personalise product characteristics. This adds an additional layer of complexity making it more difficult (impossible?) for consumers to assess the gains from trade. In this case, might consumers simply accept any offer which involves some gains? If so, will competition in personalised prices drive these prices down to cost?
the behavioural economic message is unclear. Some early experiments based on the Ultimatum Game found an ‘entitlement effect’. A proposer who for some reason is entitled to the role can successfully ask for more than someone allocated the role randomly. If such effects exist, a possible implication is that firms who can justify their pricing policy, may be more successful. However, recent experiments fail to find evidence of the entitlement effect.5

Dynamic effects

The information needed to design a profitable individualised price is more likely to be available if a consumer purchases a product frequently. An interesting question is what happens if an offer is rejected? If the algorithm is learning (unless it errs on the side of caution), such rejections must be fairly common. Does the algorithm make a new offer when a consumer revisits the website? An immediate new offer looks more like a bargaining problem where the offer is no longer ‘take it or leave it’. In this case a different model from the Ultimatum Game is needed for further insights. If an algorithm makes a new offer, and conditions this offer on past acceptances and rejection, can consumers game the algorithm?

The impact of competition

At least some consumers who are aware of price discrimination appear to view it negatively6 and, hence, firms’ reputations might suffer if they engage in personalised pricing. Will a firm really want to personalise prices? Even without negative reputational impacts, the choice may depend on the demand and cost functions, including the cost of designing and monitoring an algorithm. In the standard monopoly model of price discrimination, discrimination always dominates uniform pricing7. However, if personalised pricing requires the gains from trade be shared with each consumer in a different way, the dominance of price discrimination may no longer generally be the case. What, then, is the impact of competition on the incentive to engage in personalised pricing? If firms are targeting the same consumer based on the same information, will competition in personalised prices drive these prices down to cost? Will some firms prefer uniform pricing and create a reputation around this business model? Might firms collectively prefer one form of pricing but individually choose the other? Are there strong incentives to divide the market? Additional research here seems important to inform the policy debate.

Challenges in assessing outcomes

While total surplus would still be maximised by personalised prices, the distributional implications are far more complex. First, usually there will be winners and losers compared to uniform pricing. The losers will be from the top of the demand curve, while the winners are found further down the demand curve. As the correlation between income and willingness to pay/accept likely depends on the product, we cannot be sure that it is always the wealthy who lose and the poor who win. Second, while the average split of surplus in experiments is around 60-40, there is variation across participants. What determines whether individuals are more/less demanding in terms of a fair distribution?

Assessing whether intervention is warranted is complicated. Designing appropriate interventions even more so. Is the appropriate intervention to require firms to reveal whether or not they engage in personalised pricing?8 The Enforcement and Modernisation Directive (EU) 2019/2161 (the Omnibus Directive) requires that “Consumers should therefore be clearly informed when the price presented to them is personalised on the basis of automated decision-making”.9 An assessment of this intervention’s effectiveness depends on how different consumers respond to this information. Should we go further and limit the information which firms can collect and process for pricing purposes?

In a closed economy it may be appropriate to assess outcomes in terms of total surplus, especially where taxation can be used to redistribute the surplus. However, in open economies where international firms can move at least some of their tax liabilities around, redistributing the surplus may be limited or impossible.


3) In an experiment adapting the Ultimatum Game to personalised pricing, it is found that sellers retain 64% of the gains from trade, see Vulkan N & Shem-Tov Y, 2015, ‘A Note on Fairness and Personalised Pricing’, Economics Letters, 136, 179-183.

4) Here each consumer is charged a different price, and each consumer pays a different price for each unit they purchase.


6) For example, see: Poort J & Zuiderveen Borgesius FJ, 2019, ‘Does everyone have a price? Understanding people’s attitude towards online and offline price discrimination’, Internet Policy Review, 8(1), 1-20.

7) Uniform pricing is where all units of a product are sold at the same price to all consumers.


The elephant in the classroom: The importance of advancing the debate on competition in education systems

Israel Gottschalk, PhD Student in Economics

While important to study, competition in higher education is potentially contentious. A key concern is whether competition drives down education quality. Using unique Brazilian data it is shown that the appearance of declining quality is heavily driven by competition enabling students from disadvantaged backgrounds, with lower initial test scores, to enter higher education. Also, increasing student financial support favours enrolment at universities in larger cities.

The economics of education literature has devoted little attention to the effects of market dynamics on education access and quality, and even less attention to higher education.

My research adds to the empirical literature on education markets. Using Brazilian data, my first paper shows that the effects of competition on education outcomes are generally overestimated because policymakers do not distinguish education quality from student ability. While competition has a negative correlation with student outcomes, most of the effect is due to increasing access for students with lower ability, and only a small part is from a decrease in education quality.

My second paper shows how a student financing scheme, only funding in-person courses, increased regional inequalities in Brazil. Expansion of financing increased enrolments in large cities to a greater extent, leading to greater disparities in human capital formation between cities. I also show that financing shocks, i.e. an expansion followed by a sudden contraction in available funds, led to permanent shifts in higher education demand.

Industrial organisation and the economics of education

The economics of education has seen a new stream of policy research (see Dearden et al., 2009) thanks to an abundance of new micro-datasets.

The first papers to explore competition in education markets were mostly concerned with the ‘commoditisation’ of education. Researchers aimed to pin down the effects of market incentives on education quality and access. Papers such as Hanushek (1986), Borland and Howsen (1996) and many others, all focussed on schooling, gave inconclusive results overall.

Research at the confluence of industrial organization and education economics has since expanded. Hoxby (1997) considered higher education, looking beyond market structure indicators when examining competition, while Hoxby (2000) considered the effects of anti-competitive behaviour on education quality.

The Maximally Maintained Inequality (MMI) theory

Raftery and Hout (1993) laid out MMI as a key framework for research on the expansion of higher education. According to the theory, the difference in the probability of two students, of different social backgrounds, attaining a given level of education is unchanged until all the most advantaged students have acquired it. Until then, the advantaged group is consistently better positioned to reap the benefits of expansions in education supply. After this inflexion point, disadvantaged students benefit the most from education expansions.

Extensions of MMI into higher education occurred with Meek et al. (1996) and Shavit et al. (2007). Several adaptations of the theory, relevant to higher education, have been proposed, such as accounting for the stratification of education quality and the diversification of courses offered to students.

If MMI is valid, then once the expansion of higher education has passed the inflexion point, most new students should come from disadvantaged backgrounds. This could lead to an incorrect perception that market forces are leading to lower quality in terms of qualifications achieved.
What are the effects of provider competition on education outcomes?

In my first paper, I revisit education production function models relating education outcomes to inputs, and include a Herfindahl-Hirschman Index (HHI) proxy for market structure among the explanatory variables.

Two-stage least squares regressions are run on a cross-section of 350,000 standardized test scores for students in their first and senior years. Overall, evidence shows that competition has a negative effect on student outcomes, after controlling for subject and local characteristics.

Furthermore, there is evidence that the effects of market structure on student outcomes are channelled through selection and quality effects, as providers differentiate themselves in more competitive markets.

Running regressions of an education quality index on HHI at the course level, average education quality is found to be lower in more competitive settings, but more dispersion is also found, with higher scores for high-quality courses (in relative terms) and lower scores in low-quality courses.

Two-stage least squares regressions are run on a cross-section of 350,000 standardized test scores for students in their first and senior years. Overall, evidence shows that competition has a negative effect on student outcomes, after controlling for subject and local characteristics.

Running regressions of an education quality index on HHI at the course level, average education quality is found to be lower in more competitive settings, but more dispersion is also found, with higher scores for high-quality courses (in relative terms) and lower scores in low-quality courses.

The last hypothesis tested was that a temporary financing shock (i.e. a rapid increase, followed by a steep decrease in funds available) would lead to permanent changes in demand for in-person courses.

To test this, the sample was split into the years of expanding finance (2010-2014) and years of contraction (2014-2017). The results confirm the hypothesis, but with a twist: while expanding, student financing increases the number of students in both online and in-person education, regardless of city size. When financing for in-person courses collapses, students only shift to online education in larger cities.

In conclusion, student financing should be sustainable and not constrain the choices of students. If financing is a constraint on choice, regional disparities may worsen, including with students potentially migrating to larger cities, a topic that is the focus of my current research.

12) A common measure of concentration within sectors based on market shares.
Competition and the Environment: Bidding Processes Awarding State Aid for Renewable Electricity

David Deller, Senior Research Associate
Bryn Enstone, Research Associate
Sean Ennis, Professor in Competition Policy and Director of CCP

The European Green Deal sets ambitious goals for the reduction of greenhouse gas emissions. At present, renewable energy is heavily reliant on subsidies; the competitive award of subsidies can increase the likelihood of meeting climate targets by reducing the cost of renewable energy. Evidence is presented showing the competitiveness of bidding processes awarding operating aid for renewable electricity generation in the EU is sometimes questionable.

Note: The views expressed are solely those of the authors and do not necessarily represent the views of DG Competition, European Commission.

The European Green Deal proposes the ambitious goal of no net emissions of greenhouse gases in the EU by 2050. Meeting this goal requires substantial investment in renewable energy schemes (RES) and, due to their cost, RES deployment has been heavily reliant on subsidies. Like other subsidies, support for RES is covered by State aid rules, specifically the EU Guidelines on State aid for environmental protection and energy (EEAG) and the General Block Exemption Regulation (GBER).

The 2014-2020 EEAG required the “gradual introduction of competitive bidding processes for allocating public support”. Why is the competitive award of subsidies important? Competitive bidding should minimise the aid required, i.e. the cost, to deliver a given quantity of RES. Minimising cost is essential because citizens’ and consumers’ willingness to pay for the energy transition varies and so a lower cost makes it more likely that society will adopt the technologies required to tackle climate change.

Bidding structures vary across Member States

Competitive bidding generally implies reverse auctions where the projects requiring the lowest aid win, but also includes multi-criteria tenders. The subject of bidding was most frequently a guaranteed minimum price for the electricity produced, a lower minimum price implying less aid is provided.

Beyond introducing competitive bidding, debates exist about how the bidding should be structured, in particular, whether processes should be open to multiple technologies. Allowing multiple technologies potentially increases the number of bidders and means a competitive process determines the mix of generation across different technologies.

To support a retrospective evaluation of the relevant State aid rules, a CCP team gathered extensive data on bidding processes granting operating aid to renewable electricity generators in schemes approved by the European Commission between 2014 and 2019. Figures 1 and 2 show a split in the structure of bidding processes across Member States: France and Germany ran a large number of single technology processes, each involving small volumes, while Spain, the Netherlands and the UK ran a small number of multi-technology processes involving large volumes.
How does competitiveness vary by bidding process structure?

Most bidding processes state a volume of generating capacity/production to be procured, the ‘volume requested’. The competitiveness of bidding can be assessed in two ways: (i) comparing the volume requested with the volume participating, and (ii) comparing the volume participating with the volume awarded.

Competition is most questionable when the volume participating is below the volume requested (‘undersubscribed’ processes) since, without additional rules, it implies all bidding firms will receive aid. If bidding firms realise this, the incentive to submit ‘low’ bids disappears.

Among the sampled schemes with sufficient data, 12 processes were cancelled due to a lack of bidders, while 34 were undersubscribed. In numerical terms, most undersubscribed processes (30) involved single technologies, however, many more single technology bidding processes took place. The proportion of single- and multi-technology bidding processes that were undersubscribed was virtually identical, 26.5% vs 26.7%.

Undersubscribed bidding processes are associated with higher prices

As an initial exploratory exercise the available pricing data was pooled across the bidding processes to assess whether more competitive auctions were associated with lower award prices. Figure 3 shows that, as expected, undersubscribed auctions (the dotted lines) tend to have higher award prices. While undersubscription has the expected price impact, no obvious pattern was found between the margin by which volume participating exceeded volume awarded and the award price.

Also, Figure 4 shows it is not obvious that multi-technology processes lead to lower award prices. In 2015, 2016 and 2017 single technology processes, on average, had the lowest award prices, while in 2018 and 2019 processes opened to 4 or more technologies had the highest award prices. However, Figure 4 does not control for other factors that may affect award price such as the Member States in which the bidding processes occur.

Actual rather than potential competition drives award prices

The evidence above suggests that while bidding provides the opportunity for competition, a key factor influencing RES costs is whether sufficient bidders emerge to turn the potential for competition into actual competition. A key question going forwards is how the structure of bidding processes may affect the supply of providers entering bids. When bidding processes are undersubscribed the difference between bidding and administratively set aid may become moot, as an administratively set maximum price may become the award price.

As targets for carbon reductions become ever more ambitious leading to the volumes of RES requested increasing, a greater proportion of bidding processes risk being undersubscribed. To maximise the pool of bidders it may be beneficial to further encourage national governments to open their bidding processes to bidders from other Member States.


3) This occurred in 8 Member States, while a guaranteed price occurred in 4 Member States, and a fixed premium over the market electricity price occurred in 2 Member States.

4) For example, see: del Rio P, 2017, ‘Designing auctions for renewable electricity support. Best practices from around the world’, Energy for Sustainable Development, 41 (December 2017), pp. 1-13. Also, the AURES II project is specifically designed to investigate RES auction design features in the EU.


6) Documents often describe single auctions split into ‘pots/groups’. Where a pot/group had a separate target volume/budget and had separate price results it was treated as a distinct bidding process.

7) This abstracts from differences in price types (e.g. a guaranteed minimum price versus a guaranteed price) which affect the value of aid awarded and, hence, the bidding of firms.

8) VP = volume participating and VR = volume requested

9) Only one existing cross-border auction was identified, between Denmark and Germany.
Discussing the impact of Scotland’s ban on multi-buy promotions for alcohol

Farasat Bokhari, Associate Professor in Economics
David Deller, Senior Research Associate

David Deller speaks to Farasat Bokhari about his upcoming paper looking at the impact of Scotland’s ban on multi-buy promotions for alcohol. Contrary to the intentions of the ban, evidence is found which suggests consumption of alcohol among heavy drinkers increased following the ban.

David Deller: Today I’m speaking to Farasat Bokhari about his recent paper with Marcello Morciano and Marc Suhrcke. Farasat, can you tell me about the policy you investigate?

Farasat Bokhari: The policy was aimed at reducing alcohol consumption in Scotland because there’s a lot of literature linking alcohol consumption to bad health outcomes. The idea was to ban multi-buy promotions, i.e. buying two for the price of one etc. You can think of this as a ban on second degree price discrimination. Along with this, there were restrictions on where you could place alcohol in stores, in front of aisles and at checkouts were forbidden.

Most people thought this policy would reduce alcohol consumption. As the ban was only done in Scotland, not England and Wales, it provided us with a nice opportunity to estimate the effect of the policy by comparing nations.

David Deller: What made you look at this topic?

Farasat Bokhari: My background is in Health Economics, so I was naturally drawn to this issue. Marcello started discussing the idea with me, but he was more interested in substitution patterns, i.e. for example whether you move from purchasing beers to wines, since multi-buy promotions were most likely to occur for beers whereas other offers, e.g. single item price discounts, were more frequent for wines.

David Deller: Why the change?

Farasat Bokhari: When we started looking at the data, we realised there was a lot more to be done; specifically, whether the effect on purchase quantities was in the expected direction. For beers and wine, we found that consumption actually increased among heavy drinkers.

David Deller: What are the main findings of the paper?

Farasat Bokhari: First, the policy had different effects on different people and different types of alcohol. It was not as successful a policy as one might have thought. Overall, we did not see a drop in alcohol consumption, when compared to England and Wales. For spirits, which are not typically in multi-buy promotions, but could be affected by the front of the aisle ban, there was a small drop in consumption, but it was limited as the consumption of heavy drinkers didn’t fall. Heavy drinkers are responsible for about three-quarters of alcohol consumption and are the group policymakers are concerned about.

For beers and wine we found that consumption actually increased among heavy drinkers. When the policy came in and retailers were not allowed to offer multi-buys they were not stopped from doing other types of promotions. So retailers gave normal price discounts not linked to purchase quantity.

What do you think is going to happen with lower prices? Alcohol consumption is going to go up!

David Deller: Strictly speaking, you can’t separate out the effect of the ban on multi-buys from firms’ response of altering their price promotions?

Farasat Bokhari: That’s a good way of putting it, but we did take a crack at it. We put prices as an explanatory variable, but this creates the econometric problem that prices are being selected simultaneously with quantities. To deal with this we used an instrumental variable technique and found that for wines increased demand was primarily due to the reduced prices. However, for beers, even after accounting for the price changes, we found alcohol purchases increased.

David Deller: Very interesting. How do your results compare to the existing literature?

Farasat Bokhari: There were three studies by the time we finished, and one used the same dataset as us. Robinson et al. (2014) said the policy worked, but we didn’t see a drop in consumption.
it decreased alcohol consumption in Scotland, while Nakamura et al. (2014) didn’t find any strong effects either way. When we looked at the same data as Nakamura et al. (2014) we separated it out by household type and looked at the data on a week by week basis. We also considered price changes.

**David Deller:** So disaggregation is one way your work is better than the earlier studies?

**Farasat Bokhari:** That is part of it. Also, we dropped less data. We thought one problem with earlier studies was that they threw away observations where a household did not purchase any alcohol in a given week.

**David Deller:** What data is your analysis based on?

**Farasat Bokhari:** It’s a Kantar World Panel dataset with household level information. People were selected by the agency and given handheld scanners. Every time they went shopping they scanned what they bought. Very detailed information is recorded, in terms purchase price and whether an item was on promotion etc.

As the policy only affects people who drink at least something, we dropped people who never purchased alcohol (the threshold to be in our study was purchasing the equivalent of two pints of beer per month). Also, we only looked at people who didn’t live near the Scottish-English border because they could cross the border to purchase alcohol at a discount.

**David Deller:** Is there much to add about the methodology?

**Farasat Bokhari:** The fundamental thing is we compare the purchase patterns of people living in England and Wales with those living in Scotland, before and after the ban, something called a difference-in-difference approach. Then some technical issues show up, e.g. how do you deal with the fact that households were not purchasing alcohol every week? To account for this we used a tobit model.

Then, as mentioned previously, if you include prices as an explanatory variable you’re dealing with problems of simultaneity. So we found variables that affected alcohol prices, but not purchase quantities directly, and used them as instruments.

**David Deller:** What is the takeaway for policymakers?

**Farasat Bokhari:** We need to think a lot harder before we impose a policy like this. The intent was good, people wanted to reduce consumption, but the results are unexpected.

If you do partial regulation, saying firms cannot do a certain things, but don’t think about what else they might do, then firms’ other actions can have a secondary effect, which is why we think alcohol consumption increased for some people.

**David Deller:** Is the Scottish Government changing its policy?

**Farasat Bokhari:** We don’t know yet. I suspect if we publicize this enough, they might want to give it a second look and commission another study to see if they can verify our story. You don’t want to reverse an important policy based on one paper. Also, more recently they have introduced a minimum unit price policy of 50p per unit of alcohol.

If other jurisdictions are considering similar policies, this work is a caution to look more carefully before implementing them.

The other part we are interested in is that there may be a behavioural angle: people who drink a lot may be using the multi-buys to control their behaviour. They may have a set number of times to purchase groceries and that is when they buy alcohol. If they buy a large number of beers the unit price for the remaining beers goes down, so they say, lets not purchase anymore until my next grocery shop. If no quantity discounts exist and you run out of beer by the end of the week, then perhaps there is a temptation to make a purchase as each bottle costs the same. Fitting with this, we found the number of visits to the grocery stores increased among heavy drinkers after the multi-buy ban.

**David Deller:** Thank you for giving us an overview of the paper, it looks like one that will have a lot of impact.

---

1) Bokhari F A S, Morciano M & Suhrcke M, 2020, ‘Promotions in Alcohol Sales: Lessons from the Scottish Experiment’

2) Second degree price discrimination is where a firm offers a range of different product options with different prices and consumers self-select their preferred option.

What are the appropriate standards for economic evidence in horizontal merger cases after Hutchinson/O2?

Amelia Fletcher, Professor of Competition Policy
Kai-Uwe Kühn, Professor of Economics
Elias Deutscher, Lecturer in Competition Law and Intellectual Property

In November CCP launched a new initiative, CCP Conversations, to discuss topical competition cases on the web. Here we provide edited highlights of the discussion between Elias Deutscher, Kai-Uwe Kühn and Amelia Fletcher on the use of economic evidence in horizontal merger cases following the decision in the CK Telecoms (Hutchinson/O2) case. The full conversation is available to view here.

Amelia Fletcher: Hello, welcome to the first CCP conversation. We are discussing a judgment that sent shock waves through the competition world.

Elias Deutscher: The CK telecoms case is about a merger between two firms in the UK mobile telecoms market, reducing the players in this market from four to three. In 2016, the European Commission blocked the merger and this decision was appealed to the General Court of the European Union.

The General Court annulled the Commission decision on almost all substantive grounds. The General Court seems to raise the bar for the Commission to challenge future horizontal mergers. This raises important questions about the appropriate role of economic evidence in horizontal merger cases.

The Commission based its decision on three theories of harm. We focus on the first, unilateral effects on the retail market for telecom services. The Commission argued the merger would lead to price increases (merger simulations identified segment wide price increases of 5.7-7.3%).

Kai-Uwe Kühn: The price effects analysis here is really important, but it has been discounted by the court.

Amelia Fletcher: There are four main discussion points we're going to try and fit in. The first is the standard of proof for finding a Significant Impediment to Effective Competition (SIEC).

Elias Deutscher: The court argued that, if the Commission in a merger case relies on several theories of harm, it has to show anti-competitive effects not with the usual balance of probability standard, but with a stricter standard. However, the standard shouldn't be as strict as beyond all reasonable doubt. From a legal perspective, this is quite a bombshell.

Kai-Uwe Kühn: The traditional standards make some sense because if you're saying balance of probabilities, you're not calculating precise probabilities, but you're asking someone to say, well, are you going to bet that the merger is pro-competitive or anti-competitive?

Beyond reasonable doubt is also pretty clear. It basically says, look, with everything that I've seen there's no way that I would be worried about being wrong. Now we're going somewhere in between. The issue is that there's no mapping from evidence to, say, a 66% probability standard.

It's funny that this comes from lawyers, as it increases legal uncertainty about whether a merger is going to go through or not.

Amelia Fletcher: I would support all of that. You want different evidence if you have a different initial presumption. You have a very strong initial presumption with a 2 to 1 merger, and you have a less strong presumption with a 4 to 3 merger, so you need more evidence. I'm not clear that the court understands this.

I don't think I necessarily agree that it increases legal uncertainty. I worry that it creates legal certainty that far too many mergers will get through.
Kai-Uwe Kühn: I’m not sure that it goes in that direction because it creates a lot of discretion, both for the agencies and the courts. I think it’s a more error prone regime.

Amelia Fletcher: The next discussion point is the evidence that was brought on closeness of competition.

Closeness of Competition

Kai-Uwe Kühn: I think what closeness is trying to capture is, what evidence is there on substitution? We want to see whether products are close substitutes or less close substitutes.

The reason we’re interested in closeness is because of product differentiation. Not all firms are symmetric substitutes, so you want to know: is a merger between these two parties worse than between some other parties?

Here you’re seeing very asymmetric substitution patterns, between Hutchinson and O2: they’re going in one direction which you get in situations where the product differentiation is vertical. But then the competitive constraint from the firm that is the lowest cost provider is particularly important.

If you’re talking about closeness as a relationship between the parties that is symmetric, you’re losing the whole point that you want to make.

A new type of efficiency?

Elias Deutscher: The merging parties argued that when the Commission carried out Upward Pricing Pressure (UPP) analysis it should take into account some of the claimed efficiencies of the merger.

The Commission indicated that the merging parties have to substantiate efficiencies consistent with the criteria set out in the Horizontal Merger Guidelines in order for them to be factored into the analysis. The General Court took the opposite view. It said any concentration will lead to some efficiencies stemming from rationalization and integration of the assets of the merging parties. It calls these ‘standard efficiencies’, which is quite surprising because the General Court seems to create a new category of efficiencies. Efficiencies that can occur in any merger do not have to be substantiated by the merging parties. Whereas for efficiencies which are specific to the merger under investigation the burden of proof still lies with the merging parties.

Kai-Uwe Kühn: In terms of economic analysis, this is almost the worst part of the judgement.

It’s just a complete misunderstanding by the courts of how these procedures work.

Let’s think about a 5% price increase, where the cost reduction isn’t always fully passed on, so you need at least a 5% efficiency effect. That’s enormous in terms of historic estimates on the efficiency effects of mergers. You’re just changing the intervention standard for what your net effect is, which makes no sense whatsoever.

Amelia Fletcher: Presumably the S in SIEC is there because you don’t want to be stopping every merger that has a tiny price effect because there are efficiency benefits. By putting S in we’re essentially allowing for a general merger efficiency benefit.

How should ex-post merger studies be treated?

Elias Deutscher: The final point is the role of ex-post analysis, especially merger retrospectives in the Commission’s decision making. We are in favour of more thorough ex-post analysis of mergers.

In this case, the parties relied on some of the ex-post studies to argue that mergers are pro-competitive. The Commission argued these studies cannot replace the specific assessment of each merger. By contrast, the court seems to attribute considerable weight to one ex-post study where 4 to 3 mergers have a positive impact on investment. The question is: what is the relevant weight for ex-post studies and how should they inform merger decisions?

Kai-Uwe Kühn: I’ve long argued that ex-post studies should be used because they are shaping our presumptions, and as we don’t have perfect evidence, this is good.

I think the difficulty here is whether the literature that you’re pointing to actually supports the presumption or not. How should the Court assess something like this? It’s certainly not the decisive evidence.

Amelia Fletcher: It has been framed as a battle between economics and the law. What’s interesting is I don’t think all economists think this is a bad decision.

Summing Up

Elias Deutscher: The way forward is that the European Commission has appealed the ruling to the Court of Justice of the European Union.

If the Court agrees with the General Court, it’s very likely that some of the Horizontal Merger Guidelines will need revision. Another question is will this case push the Commission towards a more rigorous assessment of evidence?

Further, might this have a perverse effect on the Commission, in that it might use less complex theories of harm and less complex evidence to avoid such a strict standard of proof?

Kai-Uwe Kühn: I think the Court had the right intention to force more rigour in certain areas, but not the right kind of insight to do it in the right way. It creates an incentive to try to do less economics.

Amelia Fletcher: It has been framed as a battle between economics and the law. What’s interesting is I don’t think all economists think this is a bad decision.

It creates an incentive to try to do less economics