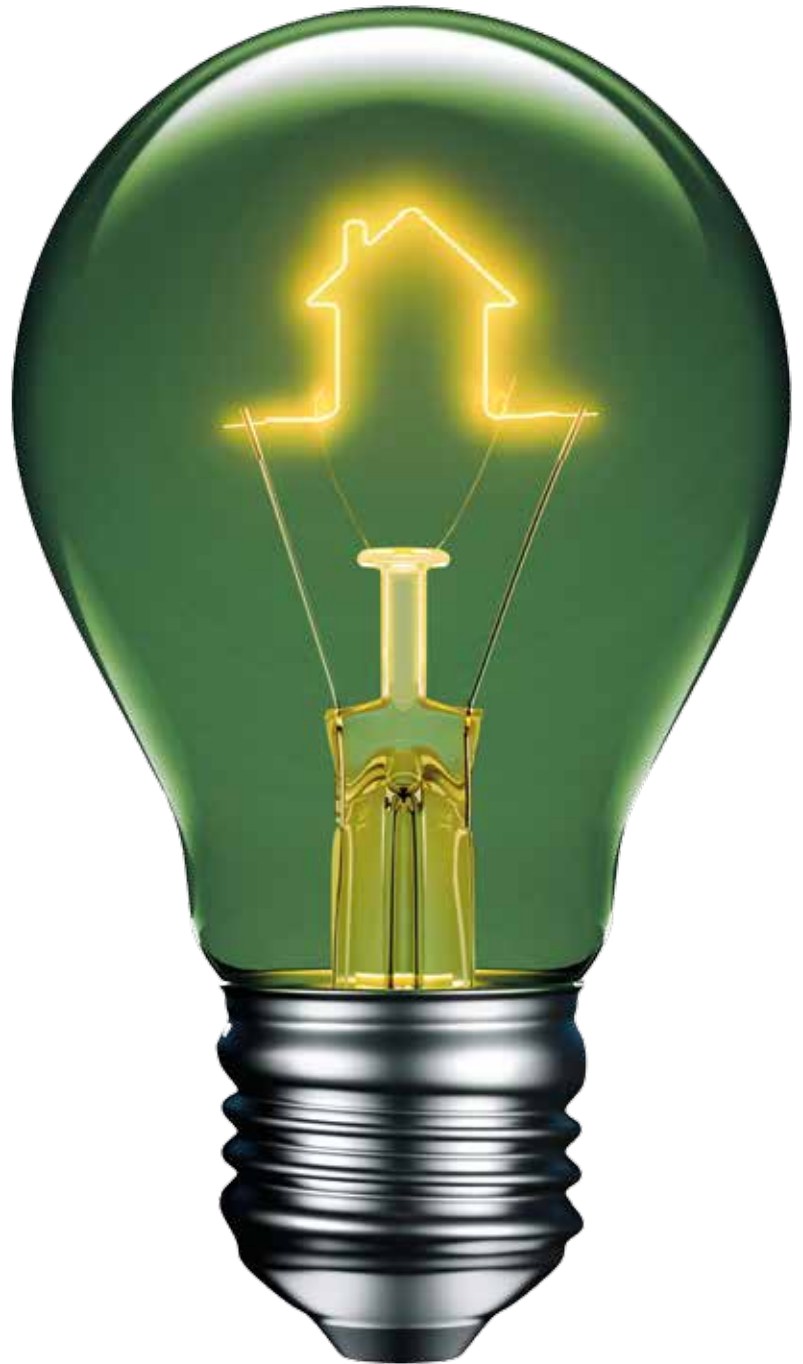


## The Green Green-Eyed Monster?

### Assessing the Impact of Group Cohesion and Environmental Attitudes on Energy Conservation Habits



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# The Green Green-Eyed Monster? Assessing the Impact of Group Cohesion and Environmental Attitudes on Energy Conservation Habits

Mike Brock, Lecturer in Economics

Using behavioural tools as a non-financial way to incentivise people has become a popular and ever-expanding area of research. This study builds upon the existing literature by providing consumers with group-level information on their domestic energy performance in a controlled field experiment setting. The results indicate that raising awareness of people's relative consumption does stimulate energy-conserving behaviour, and this is most pronounced among those who hold pre-existing preferences for sustainable living. Given that these participants were more responsive to comparative information, one conjecture is that the attitudes and structure of social groups could be key drivers in determining changes in behaviour. These results therefore imply that there is a role for issuing relative information on performance, but that the roles of group cohesion and attitudinal affiliation could heavily determine the success with which energy consumption reductions are seen.

Given both the environmental and economic benefits which can be enjoyed from efficient domestic energy usage, exploring the best ways to incentivise reductions in the wasteful consumption of electricity, heating and water has become a popular research area.

Many researchers use student halls of residence for controlled field experiment locations of this nature.<sup>1</sup> This is because most university residence rental contracts are (a) inclusive of utility bills, (b) fixed prior to arrival and (c) remain constant throughout the duration of tenancy. This removes pecuniary incentives to reduce energy for students and thus affords a "cleaner" study setting to test behavioural

interventions. Nevertheless, caution is applied regarding the exact extent to which findings are completely transferable to a wider population.

## Contributions & Methodology

This project seeks to build on the existing literature in two domains. The first is that information is provided to groups of respondents sharing the same living area (referred to as "flats"). The reason this is assessed comes from the evidence across both laboratory and field settings which suggest that, under circumstances of social cohesion, groups exhibit stronger tendencies for

## Exploring the best ways to incentivise reductions in the wasteful consumption of electricity, heating and water has become a popular research area

pro-social action than if acting individually.<sup>2</sup> The second contribution compares the responses between students living in 'standard flats' against those who self-selected to reside in a sustainable ('green') residency. This allows us to see if the actions of those who signal pre-existing preferences for a 'pro-environmental' lifestyle deviate from the main cohort.

The experiment ran from January to May 2016 at the University of East Anglia (UEA), Norwich, UK. Students from the selected flats received a weekly email which informed them of both their absolute and relative (ranked) energy consumption. Flats were fitted with a monitor which is able to isolate, log and store energy data for each residency. Readings were taken and emails sent at the same time each week for a period of 20 weeks.

### Results

#### (i) Basic Regressions

Model 1 assesses whether significant differences occurred between the flats which partook in the study (Flat FF was used as the base case) and thus omits any socio-demographic terms, which remain constant across a given flat. Model 2 replaces these flat-level dummy variables with socio-demographics of gender and nationality, and flat 'types':



	Model 1	Model 2
Constant	7.562**	6.221**
WEEK	-0.418	-0.418
FLATAA	-2.089*	
FLATBB	-3.518**	
FLATCC	-3.154**	
FLATDD	-2.197*	
FLATEE	-2.329*	
FLATGG	-1.609*	
FLATHH	-3.041**	
TEMPMAX	-0.116	-0.116
TEMPMIN	0.358*	-0.001*
RANK	1.668**	1.754**
RANKCH	0.211	0.250
TERMTIME	6.588**	6.588**
GREEN		-1.206*
ENSUITE		-1.332*
SILENT		-2.000**
UKRATIO		-2.130
MALE		4.864
Model Fit (F)	44.47**	48.27**
Pseudo R <sup>2</sup>	0.798	0.782
Observations (n)	160	160

\* p<0.1 \*\* p<0.01

Table 1: Initial Regression Results

Model 1 illustrates that, relative to Flat FF, all residences consistently used less energy each week ceteris paribus. So for example, a resident in Flat HH is estimated to use 3.041 units of energy less each week than a student living in Flat FF. All pass significance tests at the 10% threshold and, with the exception of Flat GG, also do so at the 5% level. The magnitudes of the coefficients indicate considerable variation, with high-performing flats using as much as 15% less energy each week than relatively inefficient performers. The 'TERMTIME' variable is included for intuition, robustness and consistency. Positive and highly significant, it provides a measure of the 'base' energy usage of buildings when actual residency rates are low or zero. Such latent energy costs constitute around 60-70% of consumption, meaning the scope for making savings when students are in occupancy are by no means insignificant.

Model 2 implies that neither nationality nor gender ratios hold a significant influence on energy consumption. The differences across these variables is small, and if future studies are run then selecting flats with significant variation across these characteristics may be useful. The variables

	Model 2	Model 3
Constant	6.927**	5.835**
RANK	1.683**	1.843**
RANKCH	0.236	0.261
TERMTIME	6.198**	6.198**
GREEN	-0.847	0.810
ENSUITE	-1.574**	-1.020
SILENT	-1.784**	-1.857*
GREENRANK		-0.413*
Model Fit (F)	84.53**	73.81**
Pseudo R <sup>2</sup>	0.768	0.772
Observations (n)	160	160

\* p<0.1 \*\* p<0.01

Table 2: The Impact of Green Competitiveness

“GREEN” and “ENSUITE” are both negative and significant. “GREEN” certainly complies with a priori intuition and we should expect the occupants of green flats to consume less energy than ‘standard’ residents. With relation to “ENSUITE”, it appears that improved buildings efficiency and/or the public goods saliency of communal bathroom facilities outperform any effects of having a private washroom.

### (ii) Further Analyses

The first extension assesses whether ‘green’ flat residents reacted differently to the rankings information. The intuition is that they may be more responsive to performance in order to maintain or improve an intrinsic reputation. To test this, Model 3 contains ‘GREENRANK’, an interaction of “GREEN” and “RANK”.

As demonstrated by Table 2, the variable “GREEN” loses statistical significance in Model 3, implying green flat residents are not inherently better performers than their peers. However, their energy conservation is seemingly driven by the receipt of information. Indeed, the negative and significant coefficient for “GREENRANK” indicates they respond more strongly and the conjecture is that they are more ‘competitive’ in this dimension. The coefficient in Table 2 suggests a resident in a green flat will consume 0.413 units of energy less when their ranking worsens by one place relative to somebody in a ‘normal’ flat in that same situation.

The study also sought to clarify the role that information per se has upon energy conservation. To do this, energy data for the overall residency buildings were contrasted against that of our treatment flats over the field trial period. The results (in Table 3) indicate a clear trend towards energy conservation is exhibited by the treatment groups, and its magnitude (of between 3-4 percentage points) is consistent with previously research.<sup>3</sup>

	Average Weekly Usage of Building (KwH)	Average Weekly Usage for Study Flats (KwH)	% Difference
Jan	18.33	18.51	+ 0.98
Feb	19.91	20.04	+ 0.65
Mar	15.96	15.45	- 3.2*
Apr	16.51	15.86	- 3.94*
May	19.88	19.30	- 2.92*

\* p<0.01

Table 3: A Comparison of Flat Usage against the Building Baseline

Although only a crude measure, the fall between April and May (when flats were monitored but information no longer emailed) might infer that persistent energy efficiency gains require frequent reminders to be issued to residents. This would coincide with much of the existing literature which believes that many of our improving actions are eroded or disappear once the initial stimulus disappears.<sup>4</sup>

### Conclusion

Although encouraging, the reliability and robustness of these results is questionable given (a) the small number of participants and (b) that this experiment was being run in its first year. The planned future trials and treatments will be highly beneficial in this respect.

Nevertheless, this work implies there is evidence that the degree of group cohesion could influence the response to peer-comparable information. A second finding relates to the greater competitive disposition that ‘green flat’ participants exhibit, in itself implying a potential role for targeting information to groups or individuals with specific characteristics. This supports a notion which the energy industry has already been informed of from research relating to relative performance,<sup>5</sup> political ideology<sup>6</sup> and demographic status.<sup>7</sup> Finally, a trend to reduce usage from above to below the baseline average is seen from our treatment groups over the study period.

Such latent energy costs constitute around 60-70% of consumption, meaning the scope for making savings when students are in occupancy are by no means insignificant

## The implications of this study are that policy-makers should recognise that non-financial stimuli could incite small yet significant changes in behaviour

A final note here is that this study did not provide information on how students could reduce usage. This implies that inefficiency cannot be solely attributed to a lack of know-how, but may ensue through complacency when consuming energy as a commodity. To solve this would require regular and consistent reminders in order to stimulate users to employ tools they are already aware of.

The implications of this study are that policy-makers should recognise that non-financial stimuli could incite small yet significant changes in behaviour. These may not only have positive societal spill-overs, but also yield both psychological and financial utility to the individuals involved as they see both their performance improve and expenditures fall. Such environmental “win-wins” are highly desirable and are something which wider society would surely promote. Moreover, this work implies that the extent to which interventions will be successful may hinge upon the degree of integration and/or existing environmental attitudes of those individuals being monitored. Therefore, an ability to establish or indeed nurture the degree of somebody’s group affiliation or environmental disposition could prove invaluable when employing limited intervention resources most effectively.



This article is based on Brock, M. (2016) 'Is the Monster Green-Eyed, or just Green? Assessing the Impact of Group Cohesion and Environmental Attitudes on Energy Conservation Habits', CCP Working Paper 16-8. Available at: <http://competitionpolicy.ac.uk/publications/working-papers>.

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# The impact of budget allocation on the performance of competition authorities

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**Given their resource constraints, competition authorities tend to focus on how efficiently resources are allocated between the different anticompetitive activities they seek to address. However, limited attention has been paid to understanding the impact that a budget – and budget allocation – has on competition authorities' performance. Recent CCP research has looked into how changes in spending on certain anti-competitive behaviours may impact (in due course) on the likelihood that firms will turn to an alternative form of anti-competitive behaviour. The empirical findings in Armoogum (2016) provide evidence that there exist interactions (albeit at different intensities) between the budget allocated by the government, the allocation strategy of the competition authority, and the different types of anti-competitive conduct that fall under the competences of the competition authority.**

Competition authorities (CAs) allocate a significant amount of resources to carrying out their main activities i.e., investigating cartels, deciding upon anti-competitive mergers, and limiting abuses of monopoly power. However, just like any other institution, a competition authority has a limited budget. Thus, competition authorities are forced to make choices and set priorities to ensure that funding is allocated effectively. The International Competition Network (ICN (2008)) stated that *'the success of a competition agency depends heavily upon its skill in selecting priorities and designing a strategy for applying its authority. Without a conscious process of setting priorities and ranking possible activities according to their legal and economic significance, the competition authority is less likely to focus on what truly matters'*.

Competition authorities tend to mostly focus on how efficiently resources are allocated between their different activities, but they have devoted little attention to understanding how changes in their budget allocation may change the nature of anti-competitive behaviour by firms. An increase in spending on detecting one type of behaviour may impact (in due course) on the likelihood that firms will turn to an alternative form of anti-competitive behaviour.

How feasible is it that a breakdown of a cartel, perhaps induced by augmented invigilation by the competition authority (triggered by additional budget or budget allocation), would prompt firms to revert to an abuse of dominant position or a horizontal merger or sequence of mergers? The underlying idea would be that, after a cartel breaks down, firms face tougher competition. More efficient firms respond to competition positively and grow in size, becoming dominant firms in the market and then, later on, may exploit their dominant position in the market illegally. Alternatively, cartelists might react to a breakdown by instigating a sequence of mergers, designed to re-establish quieter competition (perhaps through tacit collusion).

Studies have looked at the interaction between cartel and merger cases but not much attention has been paid to understanding the relationship between different types of anti-competitive behaviour. For example, Davies<sup>1</sup> et al. (2014) find that mergers are indeed more frequent post-cartel breakdown, especially in markets that are less concentrated. The same authors also find that in markets where mergers do not occur, the post-cartel structure is consistent with potential dominance.

In a recent empirical study, using a panel data set of 34 countries over a period between 2006 and 2014, I attempt to assess the substitutability and/or complementarity between the three branches of anti-competitive behaviour via the budget allocation decision (Armoogum, 2016). The findings suggest significant interactions (at different intensities) between the budget allocated by the government to the competition authority, the budget allocation decision by the competition authority and the different types of anti-competitive conducts.

**Studies have looked at the interaction between cartel and merger cases but not much attention has been paid to understanding the relationship between different types of anti-competitive behaviour**

The study shows that, assuming the budget allocation decisions are held constant, an increase in the level of budget allocated by the government is found to impact on the number of detected cartels in the long run, and not on abuse of dominance or merger cases. Thus, the budget seems to have some deterrent effect on the number of cartels over time. Moreover, a causal relationship between cartel and merger cases is observed. In the presence of a budget constraint, competition authorities are tempted to substitute in-depth merger investigations for cartel cases. This result provides evidence that if a competition authority increases its budget allocated to cartels, fewer resources will be available to finance in-depth merger reviews in the same year, hence reducing the number of in-depth merger cases.

The results further reveal that, in the long run, as competition authorities increase the proportion of their budget allocated to cartels, the number of abuse of



dominance investigations falls - holding the level of allocated budget constant. There may be two explanations for this effect. The first is that as competition authorities increase the proportion of their budget allocated to cartels, they detect more cartels, possibly leading to a deterrent effect on firms engaged in abuse of dominance (arising from the enforcement activity, which increases their probability of being caught). A second explanation is that when competition authorities increase the share of budget allocated to cartels, a smaller proportion of the budget is available to be spent on other competition cases, which include abuse of dominance cases, hence causing the latter to fall.

There is therefore evident that budget allocation decisions do impact on the three types of anti-competitive behaviour. Competition authorities are now in a better position to understand the impact of the budget allocation decision on their performance. It is, however, important that these results are interpreted with caution. A fall in the number of cartels, abuse of dominance cases or in-depth merger cases may not necessarily imply that the competition authority is not doing well in detection. It may also be explained by the presence of the effects of deterrence on the activity of the competition authorities, which would also mean that competition authorities are successful.

This article is based on Armoogum K (2016) Assessing the comparative performance of competition authorities. Forthcoming doctoral thesis, University of East Anglia, UK.

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# The Charter of Fundamental Rights of the European Union: An opening up of Article 101 TFEU?

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**The Charter of Fundamental Rights of the EU has the potential to “open up” Article 101 TFEU. Despite arguments for the consideration of public and/or social policy goals within Article 101 being split, the presence of the Charter provides considerable weight in favour of such goals being considered. This article will set out three options that are available for taking such considerations into account.**

When interpreting Article 101 TFEU, the EU provision for prohibiting anti-competitive agreements between firms, the Courts and EU Commission usually focus solely on economic considerations,<sup>1</sup> only allowing non-economic considerations where they can be subsumed under economic reasons.<sup>2</sup> In my PhD thesis, I argue that the Charter of Fundamental Rights (CFREU) has the potential to “open up” Article 101 TFEU to these non-economic considerations. The Charter sets out the fundamental rights of the EU and, as such, provides the basis to require Article 101 TFEU to include wider, non-economic considerations; for example, social policy considerations. The rights and principles protected by the Charter may clash with those protected under Article 101 TFEU, namely where the application of Article 101 TFEU restricts the exercise of a Charter right. Although not absolute rights, the restriction of a Charter right must be proportionate. It is this requirement of proportionality that has the potential to “open up” Article 101 TFEU, as only where non-economic, Charter-relevant considerations are taken into account, will any restriction on a Charter right be proportionate. Consequently, changes to the current economic approach may be required.

## The Charter

The CFREU sets out the fundamental rights protected in the EU, covering a broad spectrum of social, economic and political rights such as the right to life (Article 2), the right to collective bargaining (Article 28), and the right to vote and stand in elections (Articles 39 and 40). The Charter is legally

binding, with Article 6(1) of the Treaty on European Union (TEU) stating that the Charter has equivalent legal value to the Treaties, including Article 101 TFEU. Therefore, when applying and interpreting Article 101 TFEU, fundamental rights considerations must be taken into account.

This argument is supported by Article 51 CFREU. Article 51 states that the provisions of the Charter are addressed to the bodies and institutions of the Union and to Member States when applying Union law. EU bodies and institutions, and Member States, are charged with respecting the rights, observing the principles and promoting the application of the Charter. As such, fundamental rights guaranteed under the legal order of the EU, i.e. under the Charter, “are applicable in all situations governed by EU law...”<sup>3</sup> It follows that, where a Charter provision is engaged, it must be taken account of.

The need to give Treaty provisions a Charter-compliant interpretation is important. Charter rights can be restricted, but only where such restrictions are proportionate. Under Article 52(1) CFREU, any limitation on the “exercise of the rights and freedoms recognised by” the Charter must be provided for by law and respect the essence of those rights and freedoms. Limitations are subject to the principle of proportionality, and should only apply where such a restriction is necessary and “genuinely meet[s] objectives of general interest recognised by the Union or the need to protect the rights and freedoms of others.”<sup>4</sup> But the requirement of proportionality raises notable concerns when applying Article 101 TFEU.





### Application to Article 101 TFEU

It is through the proportionality assessment that Article 101 TFEU is capable of being “opened up” to non-economic considerations. The restriction of a Charter right can never be proportionate if a relevant non-economic consideration is ignored. As the Charter has an interpretative function,<sup>5</sup> the Court will generally adopt a Charter-friendly interpretation.<sup>6</sup> Therefore, in circumstances where a Charter right is engaged, Article 101 TFEU should be interpreted in a manner that takes account of the Charter right, thus deviating from the existing interpretation of Article 101 TFEU.

There are three alternative ways in which the Court can do this. First, the Court could confirm the approach in *Wouters* and consider non-economic objectives within Article 101(1) TFEU.<sup>7</sup> In *Wouters*, the Court adopted a dual approach, asking first, whether there was a restriction of competition, and if so whether such restriction was necessary to achieve the public policy objectives being pursued. This second question inevitably requires consideration of non-economic factors. However, this approach ignores the wording of Article 101(1) TFEU: the provision only asks whether there is a restriction on competition, not whether it is proportionate to the restriction’s objective.

Second, the Court could interpret Article 101(3) so as to include social and public policy considerations. This would allow Charter-relevant considerations to be taken into account, and avoid competition being disapplied on the basis that a restriction of a Charter right is disproportionate. A good example of this is to consider collective agreements

and collective bargaining of workers and employers, both protected under Article 28 CFREU. A simple collective agreement which fixes wages at a set level would clearly fall within Article 101(1) TFEU. Given that the agreement falls under Article 28 CFREU, Article 101 TFEU must take account of collective bargaining, and, moreover, any application of Article 101 TFEU must be such that it does not disproportionately restrict Article 28. If it is disproportionate, the Court will disapply Article 101 TFEU. Thus, Article 101 TFEU must take the right to collective bargaining, and associated social policy considerations, into account.

However, this second approach diverges from the jurisprudence dealing with competition law and collective bargaining. The current approach, as found in *Albany*, exempts collective agreements from competition law on the basis that to apply competition law to collective agreements would undermine the inherent social policy objectives of collective bargaining.<sup>8</sup> In creating a general exemption, the Court in *Albany*, illustrates the third way in which non-economic factors can be considered: balance competition against the Charter right outside of Article 101 TFEU. If the competition considerations “win”, then Article 101 TFEU is applied as normal.

This third approach is interesting, as such a balancing act can occur either once, as in *Albany*, or on a case-by-case basis. Although both “protect” relevant Charter rights and take wider considerations into account, the approach remains open to criticism. With a single, one-time balancing, the outcome of the balancing exercise applies to all future cases. Whilst this may create an efficient way of protecting the Charter right, it does not allow for individual nuances, nor does it adequately “respect” competition. The existence of Charter rights such as the freedom to conduct a business under Article 16, could pose a credible argument against such a set approach. In contrast, a case-by-case approach allows for a more dynamic interpretation to be adopted. Whilst this does increase the complexity and length of any Article 101 TFEU analysis, it allows for individual case nuances and differences to be sufficiently considered.

### Conclusion

In conclusion, the CFREU requires that the EU Commission and the Courts take account of social and/or public policy considerations when interpreting Article 101 TFEU. Although this is only where a Charter right is engaged, the broadness of the Charter means that these considerations will not feature in only isolated cases. Courts, and the Commission, must be aware of these concerns in order to engage and deal with a more expansive application of Article 101 TFEU.

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7. *Wouters v Algemene Raad van Nederlandse Orde van Advocaten* (Case C-309-99) [2002] E.C.R. I-1577.
8. *Albany International BV v Stichting Bedrijfspensioenfonds Textielindustrie* (Case C-67/96) [2000] 4 C.M.L.R. 446, [59]-[60].

# Equity and Justice in Energy Markets

CCP is excited to be undertaking a new research programme entitled ‘Equity and Justice in Energy Markets’. Led by Catherine Waddams, the research team includes Amelia Fletcher, Michael Harker, David Deller, David Reader, Elizabeth Errington and Glen Turner from CCP, and Tom Hargreaves and Noel Longhurst from the School of Environmental Science at UEA. The programme explores the interaction between retail energy markets and their distributional impacts on groups which may be vulnerable and under-researched, including households in social housing and SMEs.

The research has been made possible by £0.5m in funding from the UK Energy Research Centre (UKERC) and will be delivered over two years. We are delighted to be working with Broadland Housing Association, Cornwall Energy, the Federation of Small Businesses and Ofgem as external partners who are supporting delivery of the programme.

The programme focuses on three dimensions of equity and justice in energy markets:

- a) Access to opportunities
- b) Consumer response to opportunities
- c) Outcomes resulting from consumer access and response

The programme is designed around seven inter-related research packages to explore these approaches to equity and justice. The research packages, with their core research questions, are:

1. **The Statutory and Institutional Context:** How have the statutory objectives of the regulator and its relationship with other institutions changed over time? What are the principal motivations for such changes?
2. **The Impact of Devolved Administrations:** Do the Scottish, Welsh and Northern Irish devolved administrations have independent fuel poverty discourses from the UK Government? Why do fuel poverty policy formulation processes differ and do these differences result from the differing definitions of fuel poverty within devolved institutions? Why are procedural justice concerns linked to fuel poverty definitions and policy formulation?
3. **The Consequences of Non-Engagement:** What are the financial consequences of not engaging with the energy market? How do the consequences of non-engagement vary across regions? Does this regional variation change through time?
4. **Energy Expenditure Shares in the Long Run:** How does the distribution of energy expenditure shares vary across household types? How does the distribution vary through time? Can the changes in expenditure shares be associated with policy changes?
5. **Subjective vs Objective Indicators of Affordability Concerns:** How far do households’ perceptions of heat affordability relate to their energy expenditure? Is there consistency in the relationship between energy expenditure and perceptions through time? What factors

influence changes in perceptions of heat affordability between years?

6. **Variations in Small and Medium Enterprises' (SME)**

**Engagement and Satisfaction:** Is company size or sector more important in driving SME's engagement with the energy market? Which factors are associated with SMEs having a positive view of the energy market?

7. **New Technology and the Lived Experience:**

What are the impacts of new household energy technologies on fuel poor households? How are householders' everyday practices, social identities and energy use affected?

What are the implications for policymakers and housing providers?

Our first Quarterly Workshop was held in July 2016 and a range of future engagement events are being planned to help disseminate the findings of the research. If you would like additional information about the programme or would like to attend one of the Quarterly Workshops, please contact Nikki Neile at [N.Neile@uea.ac.uk](mailto:N.Neile@uea.ac.uk).

“The programme is designed around seven inter-related research packages to explore these approaches to equity and justice.”

As the research programme develops, the research outputs will be made available at: <http://competitionpolicy.ac.uk/research/research-projects/equity-and-justice-in-energy-markets>.

We look forward to communicating the findings of this innovative research in future editions of this Bulletin, on our website and through a practitioner-focused monograph at the end of the project.

## CCP 13th Annual Conference

The Enterprise Centre, University of East Anglia, Norwich, 15-16 June 2017

### Just Markets: Distributional Effects of Competition and Economic Regulation

**Traditional analysis of markets has focused on the total (efficiency) gains available from improving markets, with particular emphasis on making markets work well for consumers. This has brought to light a variety of questions such as:**

- Should the focus be on average or vulnerable consumers?
- If the playing field is to be levelled, should the focus be on access to markets or market outcomes?
- How should distributional considerations influence the design of remedies?
- How do the designs of institutions to improve the functioning of markets affect the distribution of benefits?
- What empirical evidence is there of how opening new markets and particular interventions have benefited different groups?
- How may disruptive technologies change the distribution of benefits and what interventions are appropriate?

In addressing these issues and more, this conference will explore the debates and insights by bringing together legal, political science and economic perspectives on how these principles and evidence should inform competition and regulatory policy.



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# An unintended consequence of regulatory disclosure: A case based on unsolicited ratings

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**The impact of recently implemented regulations for Credit Rating Agencies (CRAs) in Europe has received very little academic attention and presents a highly topical research avenue. This paper fills a gap in knowledge in this area by including critical perspectives on the new regulation, and investigating the impact of the solicitation status of sovereign ratings upon bank ratings. We reveal an unintended consequence of the EU rating agency disclosure rules triggered by Article 10 (5) of EU Regulation 1060/2009. The disclosure rule has an adverse effect on the ratings of banks operating in affected countries. The results suggest that banks bear a penalty if their host sovereign does not solicit, i.e. explicitly ask for its ratings. This work demonstrates the impact of the recent regulatory changes on banks and informs future policy debate in Europe.**

Events during the global financial crisis triggered increased attention to the major international credit rating agencies. During both the US subprime mortgage crisis and the European debt crisis, concerns were raised that the CRA system was flawed (due to a lack of transparency and competition, along with conflicts of interest) and that the pre-existing loose supervision of CRAs exacerbated the problem further by hardwiring credit ratings into banking and investment regulations.<sup>1</sup>

EU regulatory changes have sought to address the credit rating industry's perceived lack of transparency, lack of competition and conflicts of interest. Within Europe, oversight of the credit rating industry now rests with the European Securities and Markets Authority (ESMA). This article focuses on one of the consequences of regulation-induced disclosures by CRAs (under Article 10 (5) of EU Regulation 1060/2009), namely the potential influence of unsolicited government ratings on bank ratings. The prior literature on CRA regulation is focused on the US markets and is primarily focused on investigations of competition between CRAs.<sup>2</sup>

## **Background**

The solicitation status of ratings remains one of the most controversial characteristics of the CRA industry, which has raised debate amongst policymakers. The unsolicited ratings are those ratings which were issued without a request from the debt issuer, and therefore without their involvement. In contrast, the solicited ratings are requested by an issuer who incurs the cost of the CRA's credit appraisal. The academic literature finds that those banks and corporates which are rated on an unsolicited basis have significantly lower ratings than they would otherwise achieve if they solicited the rating.<sup>3</sup> Concerns exist that unsolicited ratings are biased downward because CRAs are not compensated for their service and therefore rate the issuers on a more conservative basis.<sup>4</sup> This is worthy of attention, because both solicited and unsolicited ratings have been permitted for some



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regulatory uses (e.g. the capital adequacy requirements of banks)<sup>5</sup>. This is a particular concern when it is unclear whether a rating has solicited or unsolicited status.

**Ratings in Practice**

Our recent paper has linked three features of credit rating practice. First, one impact of the new EU regulatory regime was to reveal which government ratings are produced under solicited and unsolicited arrangements. Second, does the well-known downward bias of unsolicited corporate ratings apply at the sovereign level? Third, there exists a ceiling effect whereby bank ratings very rarely exceed the rating of their sovereign government (termed the ‘sovereign rating ceiling’ by some commentators).<sup>6</sup> For most countries (but not the USA), banks are much more likely than corporates to be rated equal to, or near, the sovereign ceiling level.

These three features interact to generate a crucial question for banks: does the conversion of a sovereign rating to unsolicited status induce lower bank credit ratings than would otherwise prevail if the government engaged with the CRA on a solicited basis? Historically, many developed country sovereign ratings were rated at the top AAA level, which would perhaps have limited the importance of this question. However, in the current post-crisis global economy, many developed countries’ government debts

are rated below the top level (and some are well below this level). In this scenario, bank ratings in a wide range of countries can potentially be affected by downward-biased unsolicited sovereign ratings. This is an issue for banks’ own ratings but also in relation to the ratings of their counterparties, not least in the context of banks’ capital adequacy requirements. (See Fig 1 below).

Austria AA+	Belgium AA	China AA-	Finland AA+	France AA
Ireland A+	Italy BBB-	Japan A+	Spain BBB+	USA AA+

*Fig 1: Examples of S&P sovereign ratings below AAA (at 1st June 2016):*

**Possible Risks**

Sovereign debt ratings are important for banks in several respects. Many rating actions on banks are closely attached to the rating actions on the sovereign’s debt. One can observe many recent cases e.g. in Brazil, Ireland, Italy, Russia and Spain. There are several channels through which sovereign risks affect bank risks, including direct losses on sovereign debt holdings, lower collateral values for wholesale and central bank funding, reduced benefits from government guarantees and lower bank ratings.<sup>7</sup> The close interconnections between banks and sovereigns were prominent in the financial crisis period and many policy and regulatory changes have aimed to reduce the potential for sovereign-bank contagion effects.<sup>8</sup> The Bank for International Settlements showed that a large proportion (30%) of the spread on bank bonds (between the bond yield and the swap rate of similar maturity) reflected the conditions of the sovereign.<sup>9</sup> Overall, sovereign ratings are a highly important issue for banks.

**The data**

The empirical element of this research draws from rating events (upgrades and downgrades) where Standard and

Poor's (S&P) converted the status of sovereign ratings to unsolicited. This predominantly occurred in February 2011, shortly after the EU's disclosure requirements were implemented. The research is based on 147 S&P-rated banks incorporated in 42 countries (13 with unsolicited sovereign ratings and 29 with solicited sovereign ratings) to investigate the consequences of such conversions. These banks are located in Europe, Asia-Pacific and Latin America. Around 19% of the bank ratings are equal to the sovereign rating and less than 3% of cases are above this ceiling. In considering the potential impact of unsolicited sovereign ratings, we have tried to rule out the possibility of sample selection bias or that any observed phenomenon arises from events other than the adoption of EU disclosure rules for CRAs (e.g. financial crisis events (See Fig 2 below)).

<b>2011: Argentina, Australia, Belgium, Cambodia, France, Germany, India, Italy, Japan, Netherlands, Singapore, Switzerland, Taiwan, UK, USA.</b>		
2013: Turkey	2014: Portugal, Sweden	2015: Saudi Arabia
All other S&P sovereign ratings had solicited rating status as at November 2015.		

*Fig 2: S&P sovereign ratings with status converted to unsolicited*

### Unintended consequences

The research results strongly suggest that the disclosure of unsolicited sovereign status adversely influences bank ratings through the sovereign rating ceiling effect. Banks in countries that converted to the unsolicited status are more likely to be downgraded and less likely to be upgraded compared to banks in sovereigns which retained solicited ratings at all times. The fact that the CRAs face a reduced information flow from the sovereigns under the unsolicited status might justify lower sovereign ratings (i.e. the CRAs



might prefer to rate the issuer “too low” rather than “too favourably” since they are not compensated for their services). Such an effect has a potential negative impact on the funding costs of banks in that country. Therefore, banks could face a financial penalty arising from their government's decision not to solicit a credit rating. This seems to be a counter-productive approach by governments because any negative impact on bank ratings (even if modest) will inevitably influence funding and lending practices and, therefore, the wider economy. The cost for a government to solicit a rating is relatively minimal compared to the potential for negative economic outcomes. Banks should also consider whether their international counterparties' rating levels are affected by an unsolicited sovereign rating, not least because this could affect their capital requirements.

The findings have policy implications for regulators and banks since the ceiling effect identified in the study can lead to higher costs to the institutions and the wider economy. Policymakers should take a closer look at unsolicited sovereign ratings and their implications. The findings of this study reveal an unintended and undesirable impact of recent regulatory developments on the European economy and will be informative for future policy debates on regulation and competition in financial markets.

This article is based on a forthcoming research article: [Klusak P, Alsakka R and ap Gwilym O, 'Does the disclosure of unsolicited sovereign rating status affect bank ratings?' \(2016\) The British Accounting Review, forthcoming.](#) Further details on the contents of this article are available upon request to Norwich Business School.

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# Competition Policy Blog

## The Best of the Blog, Autumn 2016

# Will much change in Antitrust post Brexit?

Andreas Stephan, Professor of Competition Law

8 July 2016

The UK's decision to leave the European Union has come as a shock to markets, politicians and indeed to many 'Brexiters'. Although protests demanding a reversal of the outcome and legal wrangling over Article 50 (the process for leaving the EU) continue, mainstream politicians have almost universally accepted the result (the obvious exception being in Scotland) and there is [little evidence of public perceptions having shifted towards 'Remain'](#) since the vote, despite accusations of a dishonest and misleading campaign by the 'Leave' camp. It is therefore almost certain that the UK will cease to be a full member of the EU. [Bruce Lyons wrote about the \(limited\) advantages and \(greater\) disadvantages of Brexit for competition policy in an earlier blog](#), but here I suggest that much may remain the same regardless of what the UK's new relationship with the EU ends up being.

### The European Economic Area (EEA) and The European Free Trade Association (EFTA)

These represent the closest relationship the UK could have with Europe without being an EU member. The EEA (Iceland, Lichtenstein and Norway, plus EU member states) allows members full access to the single market, while EFTA (EEA members plus Switzerland) facilitates free trade and is accompanied by a series of bilateral agreements with the EU on access to the single market. These options may allow UK financial services to retain their cherished 'passporting' rights, which allow firms in one EU country to provide services to clients elsewhere in the single market. The problem with these two arrangements is that they require free movement of people (indeed Norway is in the Schengen passport free area), restrictions on which are considered central to honouring the Brexit vote by [all prospective candidates](#) vying to replace David Cameron as Prime Minister.<sup>1</sup>

An EEA or EFTA arrangement would make surprisingly little difference to the relationship between UK and EU competition law. Articles 53 and 54 of the EEA agreement mirror Article 101 and Article 102 TFEU and can be enforced by either the European Commission or the [EFTA surveillance authority](#) (the body that monitors compliance). The EEA agreement includes rules on State Aid and sets out co-operation between members. As Articles 53 and 54 follow the jurisprudence of the Court of Justice of the European Union, EEA members' national antitrust rules must in effect be compatible with EU competition law.

One notable difference is that the UK, as an EEA member, would not be under an obligation to apply EU Competition Law alongside national competition law under Regulation 1/2003 and would no longer be a member of the European Competition Network, whose role it is to oversee the allocation of cases between EU Member States. Interestingly

## Perhaps the biggest loser in the event of 'Total Brexit' would be private enforcement

it appears there would be nothing to prevent the UK's Competition and Markets Authority (CMA) from investigating competition law cases alongside a European Commission investigation. This is significant because it has a greater arsenal of sanctions when it comes to cartels, including the Criminal Cartel Offence and [Competition \(Director\) Disqualification Orders](#). In the realm of Mergers, EEA members tend to leave EU wide cases to the Commission but can be involved where they raise competition concerns in their jurisdictions.

Switzerland's EFTA arrangement is looser than this, but in practice its laws largely mirror EU provisions. The Swiss and EU competition authorities have a special arrangement for information sharing and cooperation, as Switzerland is not party to the EEA agreement.

### Free Trade Agreement or WTO rules

While it is possible that the UK and the EU may agree a new kind of relationship, failure to accept some form of free movement of people under an EEA or EFTA arrangement, may result in the UK settling for either a negotiated Free Trade arrangement on specific goods and services or (and this is hopefully an unlikely outcome) reverting to WTO rules. This last option would involve trade tariffs and probably be the most damaging outcome for the UK and the EU in economic terms. Both of these outcomes would involve a severing of legal ties between the UK and the EU. The UK would have to enter into a bilateral agreement with the European Commission on cooperation, information exchange and cases invoking both UK and EU competition laws.

However, even in this scenario it is unlikely that the two regime's competition laws would significantly diverge. UK Competition Law is based on substantive rules and procedures of EU Law and it is likely to continue being guided by the decisions of the European Courts, even if it will no longer be bound by them. The UK was one of the driving forces behind neo-liberalism and the move towards greater effects based competition law enforcement. So long as political interference in the UK or the EU does not pull competition law in a new direction, the two regimes should remain very similar.

Even in the event of a complete severance between the UK and the EU, the CMA may choose not to replicate much of the antitrust enforcement or even some of the merger



analysis undertaken by the European Commission. The Commission's decisions in terms of fines and deterrence will benefit the UK because of the strong overlaps between UK and EU markets. The CMA could instead focus on employing the cartel offence, as a complement to EU cartel enforcement, in relation to the most serious cartel infringements. Ironically, this is something that is not possible at present because it would involve the Commission holding up an investigation while criminal proceedings in the UK are concluded. The CMA will want to avoid duplication to the greatest extent possible, as their caseload will inevitably increase significantly in size if the Commission's jurisdiction no longer includes UK markets.

Perhaps the biggest loser in the event of 'Total Brexit' would be private enforcement. In recent years London has been built up as the forum of choice for launching private actions for damages – especially in connection with cartels investigated by the European Commission. In the absence of an EEA type arrangement it is unlikely that claimants would continue to enjoy standing (the right to sue) in connection with transactions not directly involving UK markets or customers.

1. This blog post was written prior to Theresa May's appointment as Prime Minister on 13 July 2016.

The [CCP Competition Policy Blog](#) comments selectively on a variety of issues related to competition policy. It could be on something in the news, on policies from either the Government or agencies, or it could be on a new piece of academic research that particularly catches our eye. All our posts are founded in our understanding of the latest academic research and have been written to be accessible to practitioners, academics, students and journalists.



# Director's Letter: News from CCP

Morten Hviid

Over the past six months, the two most notable events have been the annual conference and the University review of the Centre. Fittingly based at OPEN, the former premises of the regional headquarters of Barclays Bank, our 12th annual conference took place on the 9-10 June and this year focused on Competition Policy in Financial Markets. With over 120 delegates in attendance, the programme boasted a variety of perspectives with a strong policy focus from a truly multi-disciplinary line-up, with speakers from Law, Economics, Politics and Philosophy. More details, including copies of most presentations can be found on our [website](#). The Centre has also been subject to the University's internal periodic review and I am delighted to report that the Review Panel recommended that CCP should continue to be recognised as a formal UEA Research Centre. Feedback was very positive with the Panel praising the Centre for its exceptional research success, commenting on the value this adds to the University; and for our smooth transition from ESRC funding to our current mixed funding model.



Research Associates; David Deller, David Reader, Elizabeth Errington, Noel Longhurst, and Glen Turner, who recently joined the Centre to work on the project. More information on the project's research packages can be found on [page 10](#) of this Bulletin. And, in keeping with this exciting new research, the next CCP annual conference will look at the distributional effects of competition and economic regulation within markets. **Just Markets: Distributional Effects of Competition and Economic Regulation** will take place on the 15-16 June 2017 at The Enterprise Centre, UEA. You can join our [mailing list](#) if you would like to receive updates on our annual conference.

While we have welcomed new researchers, we have also had to say goodbye to a number of people, including faculty members Sang-Hyun Kim, now at Yonsei University in South Korea and Rob Topinka who has moved to the University of Sussex, and research students Mary Guy who is at the University of Lancaster and Carsten Crede who has taken an appointment at the German Competition Authority. On behalf of the Centre, I would like to take this opportunity to wish them all the best in their future careers.

The Centre continues to respond to relevant government consultations, including a number arising from the recent CMA market inquiries into banking and energy. We see these consultations as opportunities to bring our research to the attention of policymakers to expand on the evidence base for policy making. We also contribute to the evidence base through our contract research, for example CCP's Pete Ormosi's current work for DG Competition on the microeconomic impact of enforcement of competition policy on innovation, and an earlier piece of work, also for DG Competition, into mergers and merger control.

I am also pleased to announce that work on the new large UKERC project, [Equity and Justice in Energy Markets](#), has now started. Led by Catherine Waddams, the grant involves CCP faculty members Michael Harker and Amelia Fletcher as well as Tom Hargreaves from UEA's School of Environmental Sciences. The grant will also employ a number of the Centre's

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