Response to four questions from CMA

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The views and statements expressed are those of the authors and do not necessarily reflect the views of other members of the CCP or the ESRC.

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Question 1: In your view, over the next one to three years, what economic, political (including legislative), social and technological developments / trends are likely to have an impact on, or create the biggest risks to, consumers' economic welfare, the efficient functioning of markets and their contribution to economic growth?

The answer to this question needs some perspective because of three substantial recent trends:

1. The financial crisis and great recession have had a substantial impact on public and political perceptions of the market system. There is now considerable political pressure to use the powers provided by competition law to implement a particular 'remedy' (e.g. breaking up firms or limiting available consumer tariffs) without a rigorous understanding of the consequences for effective competition.

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2. Academic research in Behavioural Economics (BE) has reached a level of maturity in the laboratory and is beginning to be tested in real markets. The lessons from the laboratory have become increasingly applied to practical competition analysis and remedies, but new lessons are meanwhile being learned from the econometric investigation of real markets.
3. It is ten years since the Enterprise Act reformed market investigations and granted the CC/CMA considerable new powers. More recently, these powers have been increasingly used to implement both structural and behavioural remedies in markets where firms have not broken competition law.

These trends provide an opportunity for the creative and robust use of competition policy to improve the effectiveness of markets by the rigorous implementation of competition law. However, they also raise substantial dangers of competition law being inappropriately and inefficiently implemented, and of creating perverse incentives that could undermine the wider efficiency of the market system. Perhaps the greatest challenge to consumers' economic welfare, the efficient functioning of markets and their contribution to economic growth over the next one to three years, therefore, is the danger of uncritically following these recent trends without understanding the wider implications.

In this response, we focus on behavioural interventions, which are a particular area of research expertise in the CCP (see Mehta, 2013). However, it is useful first to consider the trend in structural interventions as an illustration of the dangers. The market investigation of BAA found poor quality and a lack of coordination between London airports, and between central Scottish airports, over which BAA had monopolies due to an anticompetitive privatisation. The CC rightly decided that the appropriate remedy was to break up BAA and the enhanced competition has been a considerable success. However, this precedent has been extended considerably in the last year to extend break-up remedies to situations where the firms have much smaller market shares of local markets. Coordinated effects without any explicit agreement has been used to justify a structural remedy in cement and high negotiated prices (relative to prices achieved by a rival and unadjusted for quality differences) has been used to justify the break-up of a private hospital network. Whatever the merits of these specific cases, they send a much wider message to firms and investors. Businesses with local market shares of over 30% must now consider whether they should seek to improve their market offer (e.g. investing in improving quality and innovation) in order to achieve greater sales, or whether this might result in a market investigation that could lead to a break-up being imposed. The precedent has already led to political and press expectations that breaking up firms is the universal solution to problem markets (e.g. power companies, banks). This over-simple view of how markets can be improved is all the more damaging because remedies in market investigations are subject only to judicial review, so the CMA's judgement cannot be challenged on substantive grounds. It is important that the CMA does not lose sight of the importance of protecting the competitive process rather than the individual actors when investigating a specific complaint.

Next consider the increased reliance on insights from behavioural economics to design remedies or to motivate the intervention in the first place. While this more realistic approach to economics and the behaviour of economic agents, whether consumers or small firms, is to be welcomed, it is important these insights are dealt with appropriately and interventions are based on solid empirical evidence to avoid over-intervention and unintended consequences. One particular issue which deserves more thought is the extent to which behavioural economics is used as an argument for intervention. There is much emphasis on the divergence between actual consumer behaviour and that assumed by classical economic models, but it is less clear what the effect is either on markets or on vulnerable consumers.

Directly relevant to this issue are findings by CCP member, Eugenio Miravete who investigates whether or not people learn from past decisions – if they do so appropriately, not only does this weaken any argument for intervention, it also implies that interventions have to be assessed with additional caution. In particular, basing the evaluation of a remedy on a hypothesis of maintained behaviour can become inappropriate and potentially misleading. We highlight evidence from three markets (energy, telecoms and health care) where concerns have been expressed about the ability of consumers to help make markets work well and where paternalistic arguments have been used to support a case for intervention.

Energy: Research at CCP confirms that consumers may well make errors in individual decisions (see for example those made in choosing energy suppliers, described by Wilson and Waddams Price, 2010). Even more marked is the failure of consumers to switch to better energy and other deals, even when there are considerable amounts of money at stake. Biases of inertia and status quo are well documented, and consumers often seem to display high search and switching costs.

However, further analysis of consumer (in)action shows that there is considerable heterogeneity in these observations. While much economic analysis of consumer behaviour focuses on that of the average consumer, a recent survey which explored searching and switching in energy demonstrated how different drivers affect different groups (Flores and Waddams Price, 2013). When consumers were allocated to groups according to their general attitudes to shopping, the strength of the main factors (beliefs in potential gain and likely switching time) varied considerably. Indirect factors such as demographics and internet access were not consistently influential across the three groups. Further heterogeneity between markets, between consumers with different characteristics, and between consumers with similar characteristics was shown in an analysis of search and switching behaviour across eight regulated markets in which buyers have a 'default' relationship with their suppliers, and where inertia biases are influential (Waddams Price and Zhu). These studies show that different policies are likely to be required to increase activity in different markets and within different groups, and that policy changes such as increasing internet access, are likely to have very different effects within each of the various groups. Moreover there is evidence that consumer action is habit forming: those who are active in one market tend to be active in others (see for example Giulietti et al., 2005), suggesting there may be learning across markets, as well as within a market as discussed below. Intervention to 'protect' consumers in one sector may therefore shelter them from learning how to be active in others.

These consumer surveys also show that higher gains and shorter switching times result in higher overall levels of search and switch activity. In other words the market could be regarded as 'rational' in aggregate, once the differences between consumers are averaged out. It is not, therefore, clear that individual consumer divergence from 'rationality' necessarily poses a threat to the efficient functioning of markets, or even to individual consumers, if providers respond to the aggregate incentives. Concerns may arise where companies can segregate the market, though non-discrimination clauses may cause more problems on the supply side than they remedy, as shown in the energy example (see Hviid and Waddams Price, 2012 and Waddams Price and Zhu, 2014 forthcoming). Moreover it is not necessarily the groups which are traditionally viewed as vulnerable (e.g. elderly, low income, without internet access) who are the least active, so that changes which encourage consumer response at the expense of potential distortions elsewhere in the economy may end up being detrimental to the very groups they are meant to assist. Potential risks to consumers may come as much from policies designed to help them as from characteristics of their behaviour itself.

*Telecoms***:** A particular puzzle from the 1980s US was that people who used phone services very little "massively" preferred more expensive flat tariff options. The obvious policy question is whether such people needed help making "better" decisions. Miravete (2003) used data from the Kentucky local tariff experiment of 1986 to analyse what was the role of consumer expectations in selecting tariff options and, more important, whether consumers later switched plans with some purpose in mind. While the initial choice was based on expectations rather than experience, once experience had been acquired consumers later switched plans to minimize their monthly bills. Narayanan et al. (2007) also explored the possibility of learning, using telecoms data. The message in this paper is that subscribing to different types of tariff options convey different levels of information to consumers. If you sign up for a flat tariff you have more difficulty figuring out whether you overpay or not. Those subscribing to a measured service only have to look at their monthly bill and compare it with the flat fee. Consistent with learning taking place when possible, they found different speeds in switching depending on the tariff plan subscribed to. Miravete and Palacios-Huerta (2014) show that people's different past actions (tariff choices and consumption levels) distinguish them different because the information set they have is different. Not controlling for this kind of heterogeneity may lead to the wrong conclusion that inertia is responsible for repeated choices. On this evidence, regulators should be slow to intervene.

Health care: In 2006 there was an important expansion of the welfare system in the US. The expansion of Medicare Part D allowed older people to obtained subsidised prescription drugs that affected millions of retired individuals and costs over 60 billion dollars in subsidies annually. This major experiment attracted the attention of behavioural economists from the beginning because provision was based on competition among numerous competing insurers and because of the targeted population. The US was divided in 34 regions and, in each one of them, older people had to choose among 50 or so plans each year. While this is a problem characterised by risk aversion, adverse selection (health status) and moral hazard (compliance, drug consumption), most economists only focused on the fact that a large number of plans were offered to a population with diminished ability to discern subtle differences among them. The claim was that individuals overpaid thousands of dollars in drugs for having chosen "the wrong" option and that some sort of regulation (standardisation of options, reduction of the number of plans available, regulation of some of its features) had to be implemented. Again one might expect people to make mistakes early on, so the key issue was whether they learnt to do better. To allow learning, Ketcham et al. (2012) put together two consecutive years of data and analysed whether or not individuals switched plans. They found that people did switch as soon as they overpaid between $300 and $500 a year and the distribution of overpayment shifts down significantly in the second year: whatever consumers overpaid initially, they reduced this amount as they learned about the functioning of this market. Furthermore, they found evidence that people did not stay in their chosen plan when it got redesigned and prices increased substantially (about the same price range $300-$500) and that those suffering from

Alzheimer or dementia did not perform differently than the rest of patients. Ketcham et al. (2014)[2] proved that these results were robust by using 20% of the population of retired citizens in the US between 2006-2010.

While in some cases, behavioural biases may warrant policy interventions, the examples above offer words of caution on three fronts:

- Intervening too early may be a mistake. Where competition has been introduced or markets liberalised only recently, consumers may not have had a chance to learn. For example, the recent reforms of the Higher Education application system in England and Wales suggest that a market inquiry may be more useful only after consumer learning has been allowed to take place (though we understand that this may sound like special pleading!).
- We do not know a lot about how entrenched behavioural biases are, but the examples above suggest that we may well overestimate them when applied to real markets with substantial incentives. This limits the potential benefit of interventions. If so, when assessing a remedy, robustness checks become even more important than usual. The challenge is to identify all the dimensions in which one would want to probe robustness.
- Focusing on an isolated market could suggest a good local solution but this should always be checked for detriment to others.

As regards political trends and risks, it is obvious to point to three important events: the referendum on Scottish Independence, the General Election and the potential European Referendum. The first of these has already had an effect on the CMA and its allocation of resources - see also a CCP blog post by Andreas Stephan [http://competitionpolicy.wordpress.com/2014/07/01/competition-policy-and-scottish-independence/]. The party manifestos may similarly create resource problems, with energy providing an obvious example. The CMA is likely to face more political pressure to be activist.

The dominant social trend would appear to be the ever-increasing use of social media. There are two separate challenges. How should these be regulated to ensure that information is not misleading? How do people respond to social networks and in particular what are the effects on search behaviour and on price elasticities?

The dominant technological trends are related to the above and in particular the ability of these and new technology such as Apps to generate new markets. An example of this is in the market for taxis with the emergence of Uber. Do consumers need protection in these new types of sharing markets and if so, what form should this take?

Another technological challenge is big data and how this is to be used. An example is healthcare where the amount of information available to the consumer has expanded drastically. However with this has come a focus on the observable with the attendant danger of what can be measured (e.g. infection rates in hospitals) getting the focus. Not only can this lead poor decisions because other relevant information is not collected or presented, but users may have difficulty in interpreting the data to which they have access. A good example is mortality rates, which may simply be high for a surgeon or a hospital because they are the experts and hence get all the difficult cases which are

[2] Ketcham, J., C. Lucarelli, and C.A. Powers, 2014, Paying Attention or Paying Too Much in Medicare Part D?, American Economic Review, forthcoming.

likely to have much less good prospects to start with. There is in general a danger that big data may get used inappropriately.

We note that a number of these issues will be addressed in the next annual CCP conference in June 2015, which will have the theme of competition and regulation issues in new digital markets

Question 2: Looking separately at each of the themes below, what do you consider to be the most significant current, emerging or potential risks to consumers, the efficient functioning of markets and their contribution to economic growth:

- *Theme 1: Consumer behaviour and vulnerability*
- *Theme 2: Business practices, evolving business models, emerging technologies*
- *Theme 3: E/m-commerce and online markets*
- *Theme 4: Public markets*
- *Theme 5: Regulated sectors (including financial and health) and infrastructure markets*
- *Theme 6: Issues in B2B markets*

Before turning to each theme, an important introductory point is that not all risks justify intervention. Sometimes it may have to be acknowledged that a market either cannot be made to work better or could do so only at a higher cost to wider incentives.

For theme 1: From the discussion above, the main risk may be over-intervention or inappropriate intervention, at least in new or fast changing markets. The current trend to focus on vulnerability requires a much clearer definition of what vulnerability is and how policy makers are expected to protect those consumers and small firms. Questions arise over who is responsible for identifying the vulnerable; who is responsible for designing appropriate interventions; who should deliver these interventions; and who should bear the costs. Carefully tested improvements in the presentation of consumer information can help markets work better. However, work cited above indicates that this is a very challenging and difficult task.

For theme 2: an emerging issue is where one firm references the price of a rival. Authorities have begun to challenge the use of Most Favoured Nation clauses in vertical contracts. However, it is essential that the CMA applies the correct theory of harm; see Fletcher and Hviid (2013).

For theme 3: How can brick and mortar retail outlets co-exist with the internet, and what solutions to challenges faced by brick-and-mortar outlets, such as free-riding by web based retailers, may present themselves? An intriguing development in Australia to combat the free riding of internet based sales is the introduction of "try-on fees". For example in Australia, some shops apparently charge small fees for checking goods without buying them. Quote from the Sydney Morning Herald [April 14, 2011] "In the latest twist, retailers have resorted to charging try-on fees in store, which are refunded upon purchase, to stop consumers heading online to search for the same item at a lower price." While this can be seen as a straightforward price for service in the presence of multiple retailers, such a practice may raise complaints in areas with a bricks and mortar monopolist.

More generally, new powerful enterprises have emerged in internet markets, using their search engines to collect information on individual consumers which will enable them to personalise prices and potentially engage in perfect price discrimination. While this does not necessarily lower overall welfare, it may represent a redistribution of wealth from consumers to enterprises and if the latter, due to their choice of location, are able to protect themselves from tax liability, there may be a competitive distortion. The correction of such a distortion would best be achieved by a more neutral tax system but that may not be feasible.

Vertical integration is likely to become an increasingly important issue in these markets (e.g. Amazon and Google) especially considering the pace with which markets can change (e.g. e-book, e-reader, mobile phones).

For theme 4: what should be the level of care expected of the designer of a procurement auction? To what extent is competition law the appropriate response to cover pricing or even other forms of bid rigging, since the bidders sign declarations which would imply that such actions would constitute fraud, something which courts are likely much more comfortable dealing with than breaches of competition law. More generally, it may make sense to rely on other parts of the law than competition law, especially where these are better understood by the courts.

For theme 5: Some of these markets have already been discussed above. Beyond this, quasi-privatisation of health provision and the behaviour of firms in the pharmaceutical sector present one of the greatest challenges in the immediate future. For some of the regulated sectors the products are very standard. For some of the newer areas, such as health, quality becomes very important. This is a lot harder to analyse but that makes it no less important. While regulators have found ways to measure quality in other regulated markets, a measure of quality is a more complex and hence harder to monitor or allow for in the regulatory frameworks. Regulators may not be able to discriminate between different product qualities, and introducing a regulation able to constrain price while preserving incentives for quality is particularly challenging in some of the newly regulated markets.

Several strategies and firm action in the pharmaceuticals sector result in delayed entry of generic medicines and should be continued to be closely monitored by the CMA as these can have significant impact on prices and consumer welfare but also have implications for firm growth and ability to innovate. Three such strategies that deserve special attention are (i) introduction of follow-on drugs to pre-empt generics from gaining market shares (ii) reaching pay-to-delay deals among branded and generic manufacturers to block/delay entry by generic manufactures and, (iii) restrictions to parallel trade of drugs across national markets. We discuss each of these below.

- Introduction of follow-on drugs. Follow-on drugs are not generics, they are patented and introduced either by the originator or a competitor and the patent has been granted because they contain unique variants of the original drug in the class. Introduction of follow-on drugs can be beneficial as they can reach a new target population for which the original drug was not as effective, as well as introduce within-brand competition leading to lower prices for other drugs in the same therapeutic class. Research by centre member Bokhari showed that introduction of follow-on drugs can have a large impact on consumer welfare (as high as $137 per patient for very novel follow-on drugs introduced in the US in the ADHD drugs market) but can also lead to much more modest gains for less novel drugs. On the other hand, follow-on drugs can also be used to prevent generics from gaining a foothold in the market. This can happen if the originator firms can selectively withdraw market authorization for original products facing patent expiration from a local market in favour of the newer follow-on to prevent generic competitors from receiving market authorization. This strategy was highlighted in the case of AZ, where in order to delay generic entry for its blockbuster anti-ulcer drug Losec (a Proton Pump Inhibitor - PPI), AZ withdrew market authorization from Sweden, Finland, Denmark and Norway in late 1990s and launched a newer patented formulation, Losec MUPS. Since the presence of a reference drug was required in these Member States at the time, it initially blocked both the launch of generic Losec as well as parallel import of Losec. In this respect CMA should pay particular attention when simultaneous market withdrawal and introduction of a follow-on by the originator are taking place.

- Pay-to-delay deals: The case of AZ raised concerns about the strategies employed by active R&D firms to protect market shares of their blockbuster drugs and contributed to the sector inquiry by the European Commission (DG Competition) in January 2008 to investigate the reasons for delays in the entry of generic medicines. The final report of the Commission highlighted that that a significant number of patent settlements include a limitation on generic entry in combination with a "value transfer" from the originator to the generic company -- the so called "pay-to-delay deals". These pay-to-delay deals involve a payment from a branded drug manufacturer to a generic maker to delay market entry where, in return for withdrawing the challenge, the generic firm receives a payment and/or an authorized licensed entry at a later date but before the expiration of the patent itself. The pay-to-delay deals have large impact on prices of all other drugs in the segment as well as on consumer welfare. Bokhari (2013) analysed a pay-to-delay case involving Shire PLCs Adderall XR (an extended form of an ADHD drug) where generic entry for this molecule and form was delayed by several years in the US. He reports that a missing drug from the market with similar features (either Adderall XR itself or a generic version of the immediate release version) results in approximately 4.5% higher prices (on average) of all other ADHD drugs. Similarly, Bokhari and Fournier (2013) show that a year earlier entry by the generic version of Adderall XR generic would have resulted in welfare gain by at least $65 per ADHD child per year (with an upper bound of $123 per child per year). Given the implied price changes and welfare loss associated with such deals, in combination with the rising number of such deals on both sides of the Atlantic (EU: 45 in Jan/00-Jun/08; 9 in Jul/08-Dec/09; 3 in 2010; 13 in 2011 and US: 16 in FY08; 19 in FY09; 31 in FY10; 28 in FY11) it is important the CMS, along with other EU regulatory institutions continue to monitor and scrutinize any patent settlement and entry limiting deals with or without reverse payments.
- Restrictions to parallel trade. Manufacturers can employ supply quota systems that limit the supply to wholesalers with import licences to just meet the needs of the domestic market or apply dual-pricing -- charge lower prices to importing wholesalers -- to reduce intra-brand competition by depleting the incentives for arbitrage between geographic markets. An important example is that of GlaxoSmithKline (GSK) who charged higher prices to Spanish wholesalers that were importing drugs into higher price Member States, and the European Commission (DG Competition) declined GSK's application for exemption to Article 81(3) for maintaining dual pricing in Spain. Although parallel trade is assumed to be beneficial for consumers, its effects on social welfare are not clear. Both theoretical and empirical literature show divergent results, raising questions on how the access to cheap drugs might

affect R&D incentives (see Bennato and Valletti, 2014). In such cases, it is important for CMA to take caution in any intervention.

For theme 6: One of the challenges for the authorities [and politicians] is not to get dragged into arguments over the division of profit in vertical chains – harm to a direct customer does not automatically lead to harm to consumers, especially where investments that enhance quality are undertaken upstream.

Nonetheless, one area that does require closer attention by the authorities is horizontal merger upstream in the wholesale sector of pharmaceuticals. In the recent years nearly all European countries had to cope with horizontal mergers in the wholesaler and retailer sectors, and most of the mergers occurred at the retailer level with the establishment of large pharmacy chains. The maximum wholesale mark-ups over ex-manufacturer prices are regulated in the UK and wholesalers forward some of this to retailers in the form of discounts. Thus a horizontal merger between wholesalers appears, in first pass, as just a re-distribution of rent between wholesalers and retailers. For instance when 2 or more wholesalers merge, this will result in a change in the level of discounts offered to retailers. The important issue here is how much of the increased mark-up by the wholesalers is absorbed by retail pharmacies, and what percentage is passed through to the final payers (third party payers such as private or national insurance, national health care system or individual patients). Bokhari and Mariuzzo (2014) argue that following such a merger at the wholesale level, the equilibrium level of discount offered by the wholesalers unambiguously increases the prices that the retailers charge. Further this increase in retail price is not dollar-for-dollar, i.e., if the discount decreases by a dollar, the retail level price will (typically) increase by less than a dollar and the quality of services at the downstream competing pharmacies will also decrease. In this situation there would a decrease in consumer welfare. However, if the cross-price effect between retail pharmacies is larger than own-price effect for one of the pharmacies, then the price in that pharmacy can increase by more than a dollar, but the equilibrium quality of services will also increase in that store. In equilibrium its pass-through rate will be greater than one, and its quality will be higher. In such cases the change in consumer welfare effect is ambiguous, and primarily an empirical issue.

Question 3: What other markets or practices should the CMA focus on – or keep under observation – given actual, emerging or potential risks to consumers, the efficient functioning of markets and their contribution to economic growth? What is the likelihood of detriment occurring, and how strong is the evidence?

A few suggestions:

- Sharing-markets such as Uber?
- The pharmaceutical industry where the level of concentration may be higher than one might conventionally think and where there is an increased vertical integration in drugs distribution enabling manufacturers to distribute directly to retailers, bypassing the wholesalers. The latter is at least partially motivated by a desire to avoid or control parallel import of drugs, where this is carried out by the wholesalers.

Question 4: Have you published any research, or are you aware of other data, research, insight or trends information that would inform our assessment of risks?

See our working paper series available at: http://competitionpolicy.ac.uk/publications/working-papers-2014. The following CCP related research is cited in the text above:

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