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Working Party No. 2 on Competition and Regulation

ASSESSMENT OF THE IMPACT OF COMPETITION AUTHORITIES' ACTIVITIES

-- Note by Prof. Stephen Davies --

25 February 2013

The attached document is submitted to Working Party No. 2 of the Competition Committee FOR DISCUSSION under item IV of the agenda at its forthcoming meeting on 25 February 2013.

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IMPACT ASSESSMENT: METHODOLOGIES AND ASSUMPTIONS

Note by Prof. Stephen Davies[1]

1.   Introduction

1.   Increasingly, CAs around the world are quantifying the aggregate benefits to consumers of their activities in an 'Impact Assessment'[2]; sometimes, the CA (OFT (UK) and FTC (US)), publishes a ratio of impact to its costs. I believe that this is good practice. Even if not obligatory, such assessments should typically be in the CAs' own interests in demonstrating publicly that they deliver 'value for money' – assuming, as is likely, that the gains from preventing/detecting just a few anticompetitive mergers or cartels more than outweigh the relatively small budgets of most CAs. Moreover, I believe that any government agency has a responsibility to the taxpayer to be seen to be socially valuable. This is not to deny that there may be counter arguments as to why impact assessments should not be conducted; but, if so, these should be articulated, and this in itself requires the CA to consciously consider the pros and cons of this form of accountability.

2.   This paper describes what is involved in assessing impact on a regular basis. Potentially, it has two target audiences in mind. First, for those authorities not yet conducting, but now contemplating, undertaking this type of assessment, it might provide assistance in developing a suitable methodology for their own purposes. Second, it identifies the differences in methodologies and assumptions used by those CAs which already conduct impact assessments. This may aid any discussion on the pros and cons of international collaboration in moving towards a greater standardisation in assumptions and methodologies.

3.   Section 2 begins by defining what might be described as 10 essential features of Impact Assessments as they have been conducted to date. Section 3 provides more micro details on the assumptions and methodologies used to evaluate impact in the core constituent parts (merger control, cartels and abuses of dominance) by the 5 CAs who regularly report the results of their Assessments. Section 4 discusses the differences in these assumptions and contemplates what a template for possible common practice might be. Finally, section 5 gives my own opinions on (i) the 'pros' and 'cons' of moving towards a standardised approach, and (ii) what might be involved for any CA considering introducing its own impact assessment.

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2.   The Essential Features of an Impact Assessment

2.1   Ten essential defining features

4.   By drawing on the existing practices of those CAs which already publish regular appraisals – OFT (UK), DoJ/FTC (US), EC (EU) and NMa (NL) – it is possible to identify ten defining features of an impact assessment. With some minor variations, they reflect common practice, and are, in my opinion, appropriate for the purpose of this note.

1.   Impacts are assessed on a **regular, usually annual,** basis, during the following year (but see point (7) below).

2.   They are **relatively undemanding in cost and time**, usually utilising information collected at the time of interventions and/or simple default assumptions[3].

3.   Estimates are generally performed using **ex-ante information**.

5.   Impact assessments are conducted once interventions have been undertaken, but using only the information available ex-ante, i.e. that available at the time of the intervention. The practitioner projects forward comparing what would happen with and without the intervention. In general, ex-ante evaluation is simpler to conduct and makes fewer demands on data than does ex-post evaluation which can only be conducted some years after, when accurate data becomes available on what actually did happen (see, for example, Davies and Lyons (2007 pp.106-7)). Given that impact assessments are typically conducted in the year following intervention, they must, almost inevitably, use only the information available ex-ante. This helps to achieve (2) above since little data collection or analysis should be required. It also leads inevitably to some of the following.

4.   It is assumed that no intervention can have a negative impact.

6.   This is a direct consequence of (3) - given that the information used is confined only to that available at the time of the original intervention, and by definition the CA must have projected a positive outcome from intervening. Of course, it is important that CAs should also evaluate from a more self-critical perspective, but that is the role of the ex-post evaluation. As mentioned already, these are only possible some years after the intervention. Since ex-post assessments are invariably much more costly, they can only be conducted on a more ad hoc basis, usually focusing on only a small sub-sample of cases.

5.   Estimates are deliberately **'conservative'**.

7.   This is essential, given the ex-ante basis and point (4) above. Obviously, the term 'conservative' is relative, and in the concluding section below, it is distinguished from 'lower bound' which is meant to indicate the least positive possible outcome.

6.   Estimates are in terms of **static consumer benefits**

8.   The emphasis on consumer benefits is appropriate, reflecting the fact that competition enforcement is guided by the consumer welfare standard. Typically, only static benefits are calculated, i.e. reduced price/increased consumer surplus. Dynamic dimensions, e.g. innovation and future products are rarely quantified (see (10) below).

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[3]   Having observed, advised and reviewed the OFT's impact assessments over a number of years, I make this observation not just as a disinterested outside academic.

7. **Annual moving averages** are usually employed[4].

9. As mentioned in (1), estimates are usually made annually. However, there can sometimes be considerable variability between years due to the erratic frequency over time in cases from abnormally large markets. Therefore it is the practice of some CAs to report estimates in moving average form. For example, the estimate for 2012 would be an average of the estimates for 2010-2012. This smoothes, rather than entirely removes, the sensitivity of estimates to say very large but infrequent mergers or cartels.

8. Estimates are 'point' estimates, rather than as a range of plausible values.

10. In principle, the alternative would be to present estimates in the form of a range, based on a statistical confidence interval. But this is impossible given the ad-hoc nature of many of the estimates. Sometimes however a CA might present alternative estimates for different assumptions – typically 'high' and 'low'.

9. Assessments typically cover mergers and cartels, and usually abuses of dominance.

11. Ideally, all areas of competition policy should be included. In the UK, so too are market studies, and in the Netherlands so is some regulation.

10. The **deterrence impact** of competition policy is sometimes mentioned in impact assessments, but it has **never been estimated in detail**. Similarly the possible beneficial effects of competition policy on **productivity, innovation and growth** are not estimated. As stated in (6) impact assessments are essentially static.

3. The Detailed Assumptions of Impact Evaluation

12. This section describes the detailed assumptions used by the OFT[5], DoJ, FTC, EC and NMa to estimate the impact of individual cases in merger control, cartels and monopoly abuse, which go to make up the aggregate estimates. These are the five CAs who regularly publish the results of their assessments. At the end of the section, other CAs are discussed more briefly.

13. To estimate the impact of any individual case intervention, information is required on:

   a) the size of the affected turnover,
   b) the price increase removed or avoided and
   c) the length of time the increased price would have prevailed absent the intervention.

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[4] Of the 5 CAs reviewed below, the FTC uses a 5 year moving average; the OFT and NMa use 3 years.

[5] In the UK, the CC also undertakes evaluations, see for example, CC(2011). Its work is aligned with the OFT's, and the OFT incorporates in its own impact estimates an agreed proportion of the CC's estimated savings for Phase II cases. There is a difference of approach between how OFT assesses its Phase I and how CC does Phase II: OFT has a much larger number of cases and tends to employ simple simulation or rules of thumb, CC typically has only a few large cases to assess and its analysis tends to be more 'bespoke'.

14.   The product of (a) and (b) provides an estimate of the magnitude of consumer overpayment avoided, per annum. For mergers, an adjustment is also often made for the deadweight loss (i.e. surplus lost by consumers who are deterred from making any consumption, see below)[6].

15.   The full impact is then derived by multiplying this product by (c), the number of years the intervention is assumed to be effective (i.e. for how many years the cartel or abuse would have continued, or before an anti-competitive merger would provoke entry or offsetting expansion by rivals.) The gains in future years are discounted by the OFT and the EC.

16.   Tables 1-3 summarise the assumptions of the five authorities, and, for reference only, it also reports the latest available impact estimates (where available). For the OFT and NMa these are in the form of 3 year moving averages, the FTC reports its estimates as 5 year moving averages. A previous paper (Ormosi 2012, Table 1) provides some analysis of time series data for four of these authorities.

3.1   Size of affected turnover

17.   In principle, this 'volume' measure is the easiest to estimate – the information is normally available for the CA and can be easily recalled from the original intervention. However, there is a judgement to be made concerning precisely what is defined as the affected turnover. The narrow option is to define it merely as the turnover of the directly intervened firms, i.e. the merging parties in those markets in which they overlap, or the turnover of cartel members, or the firm(s) abusing their dominance. However, theory suggests that there should be knock-on effects to the prices of the parties' rivals. So the wider option is to define the affected turnover as that of all firms in the relevant market.

18.   From the wording of the public documents of the 5 CAs, it appears that, for cartels and abuse, the narrow definition tends to be adopted, but for mergers the wider definition is typically employed.

19.   The more challenging parts of the evaluation are how to estimate the magnitude of the price effect and duration. For all five authorities, the preferred option is to draw, if possible, on information collected at the time of the original investigation (for example, on the magnitude of a cartel overcharge). However, in many cases, such suitable data are unavailable, and the CA then employs simple simulation or assumes some default value for each of these two factors in their evaluations. These are now briefly described as follows.

3.2.   The Price Effect and Duration

3.2.1   Cartels

20.   Table 1 summarises the assumptions used in the evaluation of the impact of cartel investigations. Where the case details are insufficient to use a case-specific estimate of overcharge, the norm is to assume 10 per cent, although the OFT and EC (sometimes) employ a 15 per cent default.

21.   Assumptions on the expected future life-span of cartels show wider dispersion. At one end of the spectrum, the DoJ and NMa assume just a notional 1 year[7], while at the other end, the OFT assumes 6 unless there is case-specific information available. The EC lies in between, using 1, 3 or 6 years depending on its judgement as to the future sustainability of the cartel at the date of detection.

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[6]   In that case, the estimate of consumer savings is the pre-merger turnover multiplied by the estimated price rise the merger would have caused minus the deadweight loss that this would have caused.

[7]   Indeed, in the case of cartels which are less than 1 year old at the time of detection, future duration is projected by the DOJ to be the same number of months as its age at detection.

Table 1: Assumptions used in cartel cases

	EU	USFTC	USDOJ	OFT	NMa
Affected consumers	Affected market	n/a	Volume of commerce	Turnover affected goods	Turnover affected goods
Price effect	10-15%	n/a	10%	10-15%	10%
Duration (years)[1]	1/3/6	n/a	1 or number of months for shorter lived	6	1
Estimated impact (mn)[2]	2,800 - 4,200	n/a	249	151[3]	40

[1] OFT and EC discount future gains at 3.5% p.a..
[2] £ for OFT, $ for FTC and DoJ, euros for EC and NL
[3] for cartels and abuse combined
[4] for mergers and abuse combined

3.2.2   Mergers

22.   In merger cases, if the price impact of a merger was estimated during the original investigation, or there is case-specific information available, this can be used in impact evaluation. If not, simulation models appear to be the most preferred option, projecting how prices, demand, and market shares might have changed had the merger been cleared without the CA's intervention. In other cases default assumptions are made on the price impact, as summarised in Table 2.

Table 2: Assumptions used in merger cases

	EU	USFTC	USDOJ	OFT	NMa
Affected consumers	Size of relevant market	Volume of commerce	Volume of commerce	Turnover of affected goods	Size of relevant market
Price effect	Simulated[6]	1%	simulated, if not 1%[5]	simulated, if not, average of simulated [5]	1% [5] [6]
Duration (yrs)[1]	2-7	2	1	2	1
Estimated impact (mn)[2]	4,000-5.800	532	1431[7]	8	171[4]

See sources and notes for Table 1
[5] plus deadweight loss estimate
[6] plus assumed 1% due to enhanced efficiency
[7] mergers and abuse combined

23.   The simulation models are chosen, as appropriate, from three candidates – Cournot for homogeneous products and Bertrand (e.g. PCAIDS or ALM) for differentiated product industries. Increasingly in recent years, for the OFT, 'simulation' is based on estimates undertaken at the time of the investigation of the likely Upward Pressure on Prices (UPP) or related techniques (OFT 2012). Previously the EC assumed that future customer savings resulting from corrective merger decisions corresponds to 10% of the size of the relevant market(s). It has now been changed to a practice whereby price effects are typically simulated on a case-by-case basis.

24.   Where simulation is not appropriate – either because none of the above models adequately describes the nature or competition, or because data for calibration are unavailable, a very low default assumption of just a 1% price raising effect is made (FTC, DoJ and NMa), although the NMa adds 1% to this, representing an 'efficiency effect'.

25.   The duration assumptions are almost universally either only one or two years, although the EC employs more case-specific discretion.

3.2.3   Abuse of dominance

26.   As argued by Werden (2008), Davies (2012) and Ormosi (2012, section 1.5)[8] abuse of dominance cases arguably pose the greatest challenges for impact assessment. Similarly to other case types, if case-specific information is not available, default assumptions are made about the price effect and likely future duration of the infringement (see Table 3.) Here, there appears to be a dichotomy between the OFT and NMa on the one hand, which treat abuse similarly to cartels, and the FTC and DoJ who assume a 1% default if no estimate is available from the case team. The EC now no longer publishes estimates of its impact in this area, explaining that it fears that the small number of cases involved might prejudice confidentiality.

Table 3: Assumptions used in abuse of dominance cases

	EU	USFTC	USDOJ	OFT	NMa
Affected sales	N/A	Volume of commerce	Volume of commerce	Turnover affected goods	Turnover affected goods of the abusing company
Price effect	N/A	1%[5]	1%[5]	10%	10%
Duration (yrs)[1]	N/A	2	1	6	1
Estimated impact (mn)[2]	N/A	445	1431[7]	151[3]	171[4]

See sources and notes for Tables 1 and 2.

3.2.4   Others areas of policy

27.   Beyond these three cornerstones of competition policy, the OFT also includes market studies in its evaluations (see above.) In addition, some of the CAs also conduct some assessment of other advocacy activities and of their consumer protection initiatives. For example, the OFT compares the pre- and post-

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[8]   See also Davies' presentation (2012) at the previous meeting of this Working Party.

intervention number of consumer complaints, and a reduction in the number of complaints is converted into a financial estimate of avoided consumer detriment by valuing each complaint at a proportion of the purchase value. As a performance measure, the FTC reports the number of consumer complaints and the percentage of the FTC's consumer protection law enforcement actions that target the subject of consumer complaints to the FTC. Other methods such as consumer satisfaction surveys are also applied in other countries.

3.3 Other Competition Authorities

28.   As far as is known, the five above authorities are the only ones who conduct regular annual impact assessments with results placed regularly in the public domain. However, it is clear from the responses to the OECD questionnaire that a number of other authorities undertake similar sorts of assessment, albeit sometimes only on a particular part of policy, and/or non-routinely.

29.   The most comprehensive of these appear to be Hungary and Mexico, who employ similar defaults for assumed price rises to those of the five above authorities (although Mexico employs a 20% default price effect for mergers.) Germany and Japan have also both evaluated the impact of cartel interventions using default price increases.

30.   On the other hand, one authority (New Zealand) reports that it has trialled a methodology along the lines of OFT but has decided not to adopt it – at least for the present – because so many impacts are inherently un-measurable. In particular, it is concerned with the deterrence issue. Not only is this difficult to measure, but, more fundamentally, the authority is concerned that a CA's success in deterrence will have the perverse effect of lowering measurable impact – at least if impact is measured along the lines described in this paper.

4.   Comparison of assumptions: a template for designing a common practice?

31.   Against this backcloth, I return to my brief for writing this paper. I have been asked to:

(i)   offer some remarks which might be helpful for any authority contemplating introducing its own impact evaluation methodology, but also

(ii)   discuss what might be involved in an international collaboration designed to establish convergence in the methodologies and assumptions employed by those authorities which do evaluate impact.

32.   For the sake of brevity, henceforward I refer to the two types of authority as the (potential) entrants and incumbents respectively.

33.   A good starting point are the 10 essential features outlined in section 2. Broadly speaking, 1-8 describe what is already more or less common practice (albeit with some exceptions on some of the points) amongst the incumbents. I believe these should underpin any impact assessment.

34.   On the coverage of the assessment (point 9), it is common practice amongst incumbents to evaluate the core (mergers, cartels and abuse) even if separate figures for each are not always published. Again, I believe it would also be sensible for entrants to do the same. Beyond this core, some incumbents might also evaluate other areas (e.g. market studies in the UK, and sometimes consumer protection in some authorities), but because these may be idiosyncratic, and anyway often very difficult, these are best thought of as optional extras.

35.   On point (10) – widening the scope of evaluation to include deterrence, productivity, growth etc. – these are matters all requiring future research (see Davies (2012) and Ormosi (2012)). Without doubt, the absence of an estimate of the benefits from deterrence is the most uncomfortable gap in impact evaluations. But, while some CAs have made tentative first steps towards quantifying deterrence[9], there is still insufficient understanding of the likely magnitudes involved to support the routine inclusion of, say, a deterrence multiplier in impact evaluations.

36.   Assume then that an impact assessment is defined by 1-8 of the essential features and is confined to mergers, cartels and abuse, which methodologies and assumptions should be used for cases in each of these three areas?

37.   Again following the general practice of incumbents, the first best solution is to draw wherever possible on the original investigations for case-specific information on the likely price rise of a merger or overcharge by a cartel, or dominant firm abusing its dominance. Similarly, case details may sometimes support informed guesses on likely duration. To operationalise such case-specific information, it may be appropriate to employ back of the envelope simulations, for example in the case of mergers using diversion ratios and UPP methods to estimate the price effect.

38.   Failing any such case-specific information, default assumptions will be required. Table 4 recalls the range of assumptions used by incumbents, and these are now discussed and compared in turn.

Table 4: Possible default assumptions (i) current practice

	Mergers	Cartels	Abuse
Affected turnover	Parties' turnover only or Market turnover?		
Deadweight loss averted	Include or exclude an allowance?		
Price rise removed/averted	1%	10-15%	1-10%
Duration (years)	1-7	1-6	1-6

4.1   Affected turnover

39.   As mentioned earlier, economic theory suggests that the price effect of a merger/cartel/abuse is unlikely to be confined to just the parties involved. In nearly all oligopoly merger models, the rational response of rivals is to increase price in response to an increased price by the merging parties – broadly speaking, the rival price increase should match the parties' for coordinated effects mergers, or to be somewhat less in unilateral effects mergers. Similarly, it is rational for cartel outsiders to charge a higher price when competing with a cartel than when competing with the same firms not cartelised. In monopoly abuse cases, there is no unambiguous lead from theory; for example, partially foreclosed rivals may be forced to price lower if they are to maintain a foothold in the market. Generally speaking the narrow definition (parties' turnover) will lead to an underestimate of averted harm, while the wider definition (market turnover) will over-estimate it – probably particularly in abuse cases. In the spirit of conservatism, perhaps the narrow definition should be used.

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[9]   The NMa and OFT have both previously commissioned surveys of competition lawyers etc, designed to ascertain typically how many cases are deterred for every case intervened, and they show how such information could be used to multiply up the observed impacts to allow for indirect deterred impacts. Apparently, the Lithuanian Authority uses such multipliers in its impact evaluations. The German Cartel Office also makes a fairly arbitrary conservative allowance in its assessment of the benefits from cartel prosecution (2010, p.16). It assumes, as a very bare minimum that at least one cartel was deterred in the period 2003-7, and this would have benefited consumers by several million Euros.

4.2   Deadweight loss averted

40.   Especially for mergers, some of the incumbents allow for the deadweight welfare loss averted by the intervention in their assessment. In other words, if a merger prohibition or remedy averts an x% increase in price, this benefits not only those consumers who would continue to buy post-merger, but it also deters some consumers from leaving the market and their surplus should be included in the estimate. Similarly, the striking down of a cartel benefits not only those consumers who were buying from the cartel but also those consumers now attracted to enter the market by the new lower price. In order to make this adjustment, an estimate is required of the demand elasticity.

41.   Again in the spirit of making conservative estimates and in simplifying the exercise, there is a case for ignoring this adjustment even although it is academically uncomfortable to do so. But either way, there is also a case for treating mergers, cartels and abuse identically.

4.3   Price effect

42.   For cartels, the common assumption is 10%, but with OFT and sometimes the EC opting for 15%. The latter seems more in keeping with the empirical evidence in the academic literature. Much of the evidence (for example, see the meta-study by Bolotova and Connor (2006)) suggests that the median cartel overcharge lies between 17 and 30 per cent[10]. However, 10% probably better qualifies for the 'conservative' label.

43.   For mergers, the generally adopted default of incumbents is only 1%, although this is probably the area where the default is used least frequently. On the face of it, 1% appears to be an absolutely low interpretation of the term 'conservative'. It is extremely unlikely that any CA would attempt to intervene in any merger for which the expected price increase was only 1%. Unfortunately, unlike for cartels, the academic literature sheds little light on what might be a general ball-park figure for how much the 'typical' anti-competitive merger raises price, although there are some illustrative US studies on intervened US mergers. Ashenfelter and Hosken (2008) for example looked at five selected cases and found estimated price increases to be between 3% and 7%. In earlier studies Werden et al. (1991) reported a 5.6% price increase, and Borenstein (1990) estimated a 9.5% average increase. As a matter of personal opinion, I believe that raising this default to say 3% would be justified – recognising that most CAs would be reluctant to intervene in any merger unless it felt confident that it would raise price by at least that amount. This would help to rectify what I see as an anomaly in present practice which weights each intervened cartel 10 times more heavily than each intervened merger.

44.   The lack of any wide-ranging empirical academic survey on abuse of dominance cases makes it difficult to assess the prevailing default assumptions used by the incumbents, although the dichotomy between the US (1% in the absence of simulation) and the European authorities (10%) is stark. As discussed in previous meetings of this working group, more research is surely needed in this area. In the meantime, there is a case for treating cases of abuse identically to cartels, i.e. assuming a common default of 10%.

4.4   Duration

45.   As seen earlier in Table 1, there is considerable diversity between the incumbent authorities in their default duration assumptions for cartels. In assessing these alternatives, it is tempting to turn to previous empirical studies of cartel duration such as Block, Nold et al. (1981) and Levenstein and Suslow (2006.) However, these studies were conducted on the duration of cartels at the time when they were

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[10]   More recently, Smuda finds a mean of 20% for a cleaned subset of this database.

detected, and these cartels are likely to differ from undetected cartels, which are more appropriate for the implicit counterfactual used here, namely, how much longer would these cartels have survived *had they not been detected?* In principle, the expected future duration at each point in its lifetime can be predicted using a survival analysis of past cartels – but only those which died a natural death. As far as is known, no such study along these lines has been attempted to date. In the meantime, we do know from the academic theoretical literature that there is a variety of determinants of cartel duration (see Ormosi 2012, p.5). These include the severity of fines and leniency programmes, as well as the type of the industry, specific market conditions, and entry conditions. Given this potential heterogeneity, the EC's case-dependent approach is quite persuasive – it selects a future duration depending on how sustainable it assesses each cartel to be at the date of duration. However, this does require a significant judgemental input, and if this was considered unattractive, then convergence on a single number, probably somewhere between 1 and 6 years, might be appropriate.

46.   For mergers, the corresponding concept is for how long would the adverse consequences of an anti-competitive merger continue before offsetting market self-correction would occur - new entry or rival expansion. In this case, it seems unlikely that a CA would ever choose to intervene if it believed that post-merger offsetting market correction would occur rapidly within the following one or two years. Thus again one might argue that the incumbent authorities are being overly conservative. The one exception to these very small lower bounds is again the EC, which classifies mergers into one of three groups: "significant", "high" and "very high", depending on its assessment of the height of barriers to entry or rival expansion. As for cartels, there is a trade-off here between introducing discretion (and implicitly heterogeneity between CAs) and choosing a fairly arbitrary common default. Again, a future research survey might be helpful – in this case a survey of retrospective studies of anti-competitive mergers. But pending that research, the EC approach is perhaps the most appropriate.

47.   Very similar comments on abuse cases apply as to those made above for cartels. Arguably, self-correction by markets to abusive foreclosing behaviour might typically be longer than for cartels, but there is no body of available previous research surveys to corroborate this expectation.

4.5   Summary

48.   Table 5 pulls this discussion together by making what I consider to be defensible conservative default assumptions. Needless to say, each would merit further discussion.

Table 5: Possible default assumptions (ii) tentative proposals

	Mergers	**Cartels**	**Abuse**
Affected turnover	Parties' turnover only		
Deadweight loss averted	No allowance		
Price rise removed/averted	3%	10%	10%
Duration (years)	1-6*	1-6*	1-6*

* Assumed duration to lie in this range, depending on the judgement of the CA. Alternatively, 3 years might be an appropriate conservative norm.

5.   The implications - a personal view

49.   My own view on the two questions that motivate this paper are as follows.

50.   Concerning any **potential harmonisation** amongst those CAs which already conduct regular impact assessments, it is fair to say that the commonality already exceeds the differences, at least methodologically. However, as just seen, the precise values of default assumptions are significantly different. This makes comparisons across CAs a hazardous exercise. For example, suppose hypothetical

CA1 assumes that cases involve a 5% price effect for 1 year, but hypothetical CA2 assumes 10% for 6 years, then CA2 claims an impact 12 times greater than CA1 for an identical case.

51.   Of course, this begs the question of whether comparability across different CAs is a desirable objective. On the one hand, if there was general agreement on what precisely is best practice, then harmonisation has value, assuming everyone moves to the best practice. On the other hand, one fear of those resistant to implementing impact assessment is that it penalises those CAs which are most successful in deterring anti-competitive practices and merger proposals. So long as impact assessments continue to ignore the impact of their success in deterrence, this implicit fault-line will remain.

52.   On balance, my own view is that harmonisation in impact assessment is desirable, especially given that recent decades have seen a general convergence around the world towards more or less homogeneous competition law, institutions and practices. I believe that the database that it would help facilitate could provide an invaluable input for a future research agenda of better understanding how competition, policy and its impact each evolve over the long-run, and between countries at different stages of development.

5.1   Should 'potential entrants' seriously consider introduce their own assessments?

53.   On this, my view is even less qualified. It is clear from the replies to the OECD's questionnaire that many CAs are deterred from doing so by the potential time and resource costs and fears of data availability. Yet, this need not be the case.

54.   From my own experience in advising a CA in its impact assessment, I believe that it would be very simple for any CA to generate a *very lower bound* assessment of its impact. I can illustrate with a simple example. Suppose the CA were merely to adopt lower bound assumptions of 1% price effects for mergers, 10% price effects for cartels and abuse cases, and 1 year duration for all three. In that case, estimated total impact would be 10% of the aggregate turnovers of all cartel and abuse case markets plus 1% of the aggregate market turnover of all anti-competitive merger cases. Given that every CA routinely records the turnovers in the markets in which it intervenes, then such an assessment would be a trivial exercise. Of course, it would generate only modest estimates of impact for CAs from smaller countries with smaller markets, but scale effects could be partly controlled for by expressing such an estimate as a ratio to the CA's costs (which presumably would also be smaller).

55.   Hopefully, this might be a cautious first step, before moving up towards whatever harmonised default values have agreed by incumbents (such as those proposed in Table 5.) Then, resources permitting, the CA might begin to introduce a greater degree of judgement, for example case-by-case decisions on duration, and perhaps using simple simulation models.

56.   Indeed, if there is general agreement that eventual harmonisation is desirable; it might a helpful first step if all member authorities were to report such a very lower bound estimate, alongside their own preferred conservative estimates. The latter might still be based on their own preferred assumptions and methodologies, pending future convergence.

REFERENCES

Ashenfelter, Orley and Daniel Hosken (2008) 'The effect of mergers on consumer prices: evidence from five selected case studies', *NBER Working Paper*, Nº 13859.

Block, Michael Kent, Frederick Carl Nold and Joseph Gregory Sidak (1981) 'The deterrent effect of antitrust enforcement', *Journal of Political Economy*, 89, 3, 429-445.

Bolotova, Yuliya and John Connor (2006) 'Cartel Overcharges: Survey and Meta-Analysis', *International Journal of Industrial Organization*, 24, 1109–1137.

Borenstein, S. (1990) 'Airline Mergers, Airport Dominance, and Market Power', *American Economic Review (Papers and Proceedings)*, 80, 400-404.

Bundeskartellamt (2010), "Effective cartel prosecution: benefits for the economy and consumers"

Competition Commission (2011) "Estimated benefits to consumers from the CC's actions in mergers and market investigations between April 2009 and March 2010"

Davies, Stephen W (2012), "A survey of the approaches and methods used to assess the economic effects of a Competition Authority's work", Swedish Competition Authority

Davies, Stephen W. and Bruce Lyons (2007) 'Mergers and Merger Remedies in the EU: Assessing the Consequences for Competition', Cheltenham, *Edward Elgar*.

Davies, Stephen W (2012), "Ex-post evaluation of cases of Abuse of Dominance" and "Deterrence: some thoughts on the deterrence multiplier", presentations at the OECD, October 2012

European Commission DGCOMP (2012), "Competition Management Plan", European Commission

Levenstein, M. and V. Suslow (2006) 'What Determines Cartel Success?', *Journal of Economic Literature*, 44, 43–95.

NMa (2010), "Outcome of NMa activities: a description of the calculation method" (Kemp R, Mulder M, and van Sinderen J), NMa Working Paper No. 1

NMa (2012), "NMa Annual Report 2012"

OECD (2012), "Evaluation of competition enforcement and advocacy activities: The results of an OECD survey", December 2012, DAF/COMP/WP2(2012)7/REV1

OFT (2012) "Positive Impact 11/12 - Consumer benefits from the OFT's work", OFT 1428

Ormosi P., (2012), "Evaluating the Impact of Competition Law Enforcement", Paper presented at OECD…. Stocktaking on evaluation, June 2012, DAF/COMP/WP2(2012)5

Smuda F., (2012), "Cartel Overcharges and the Deterrent Effect of EU Competition Law", ZEW Discussion Paper No. 12-050

US Department of Justice Antitrust Division (2012), "Congressional Submission FY 2013 Performance Budget"

US Federal Trade Commission (2012), "Performance and Accountability Report, Fiscal Year 2012"

Werden, Gregory J. (2008) 'Assessing the Effects of Antitrust Enforcement in the United States', *De Economist*, 156, 4, 433–451.

Werden, G., A. Joskow and R. Johnson (1991) 'The Effects of Mergers on Price and Output: Two Case Studies from the Airline Industry', *Managerial and Decision Economics*, 12, 341–352.