

**LECG CRITIQUE OF THE CIPIL REVIEW:  
RESPONSE**

CENTRE FOR INTELLECTUAL PROPERTY AND INFORMATION LAW

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## 1. BACKGROUND

In December 2006 the Centre for Intellectual Property and Information Law at the University of Cambridge published a report reviewing the evidence related to a term extension for sound recordings.<sup>1</sup>

The report was itself commissioned by the Gowers Review on Intellectual Property which was set up in December 2005 by the Chancellor of Exchequer to conduct ‘an independent review into the UK Intellectual Property Framework.’<sup>2</sup> Among other matters, the Gowers Review gave detailed consideration to the question of whether a term extension for sound recordings was merited, and it was this which motivated their commissioning of the CIPIL report. Based on the report, and the other evidence available, the Gowers Review recommended strongly *against* any term extension.

Several months ago, due to the comments of music industry representatives in public fora, members of CIPIL became aware that a critique of their work had been circulating.<sup>3</sup> It appeared this critique had been commissioned from the LECG consultancy by the BPI (British Phonographic Industry). Unfortunately the BPI have refused to make the LECG report publicly available. However, we have been given a copy from another source and it is on this that the following is based.

Coming from an academic environment in which public debate and discussion is valued – and where it is common courtesy to provide an opportunity to respond to criticism, the continued secrecy surrounding LECG’s work is troubling. Concern is increased when secrecy is combined, as it appears to have been, with a systematic provision of this report – on a confidential basis – to particular groups (including policy-makers). In any normal course of events we would think it both unnecessary,

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<sup>1</sup>‘Review of the Economic Evidence Relating to an Extension of the Term of Copyright in Sound Recordings’. The full report can be accessed from the HM Treasury website at [http://www.hm-treasury.gov.uk/media/B/4/gowers\\_cipilreport.pdf](http://www.hm-treasury.gov.uk/media/B/4/gowers_cipilreport.pdf).

<sup>2</sup>Further details may be found on the Gowers review website at [http://www.hm-treasury.gov.uk/independent\\_reviews/gowers\\_review\\_intellectual\\_property/gowersreview\\_index.cfm](http://www.hm-treasury.gov.uk/independent_reviews/gowers_review_intellectual_property/gowersreview_index.cfm)

<sup>3</sup>At a meeting of the Competition Law Association on July 8, 2008, Richard Mollett of the BPI openly referred to the LECG study, observing that it had been widely circulated and was not regarded by the BPI as confidential.

and inappropriate, to comment on material which had not even been made public. However, giving the continued debate on these issues, and the crucial juncture they have reached, we feel compelled to issue some kind of response.

## 2. THE LECG CRITIQUE

Most of the issues raised by LECG are simply differences of judgement on points which are already discussed at length in the original report rather than claims for any inaccuracy. However, there are a few significant issues that are worth addressing directly.

**2.1. Impact on Price.** Based on the PwC report LECG dispute whether copyright does have an effect on price. This question, including the PwC data, was dealt with at length in the CIPIL report and we see nothing in LECG's comments to merit any change in our views. Nevertheless, given the prominence this issue has assumed in the debate, we offer a few brief comments here.

First, it should be made clear that the PwC results do **not** show that copyright has no effect on price. Rather, using their (small) sample, PwC is not able to *reject* its null hypothesis that copyright has no effect on price. In fact, at all of the retailers examined by PwC, out-of-copyright recordings are cheaper than in-copyright ones – but the difference is not statistically significant (in large part because the variance in retail prices is very high).<sup>4</sup> Thus PwC have not established that copyright has no impact on price – simply that, using a test with low power – they cannot reject their null.<sup>5</sup>

<sup>4</sup>PwC do a standard test for difference in means. That is, if  $\mu^C, \mu^{PD}$  are the average price of in copyright and public-domain material and  $\sigma$  is overall sample standard deviation they are computing a statistic like:  $t = \frac{\mu^C - \mu^{PD}}{\sigma}$ . The null hypothesis is then that  $\mu^C = \mu^{PD}$  and hence that  $t = 0$ . The hypothesis is rejected if  $t$  is significantly negative. However it should be clear that when  $\sigma$  is large  $t$  will be small and it is unlikely the hypothesis is rejected even if it is false (the power of the test is low).

<sup>5</sup>The PwC approach is a cross-sectional one and hence implicitly assumes that their sample of in-copyright and public-domain recordings are equally matched in all other attributes that affect price. If this is not so, as is quite likely, results can easily be biased by this unobserved heterogeneity – something which could be mitigated by a combination of larger sample size and the introduction of other control variables.

Interestingly, were one to adopt the contrary, and not implausible view that the default hypothesis should be that there was a difference in means of say  $\approx 10\%$  (what one would might crudely expect the copyright premium to be) one would not be able to reject this either based on PwC data. This just shows how, when using tests with weak power, the null hypothesis matters a lot. Of course the optimal approach here would be to conduct a much larger study with much more data but to do so requires both research funding and for the music industry (or other related parties) to make available the necessary data.<sup>6</sup>

Moving on from these specific comments we would emphasize, at a more general level, the a priori implausibility of the argument that the expiry of copyright has no impact on the price of recordings. By a simple accounting identity (money cannot come out of thin air), any gains to the music industry from the retrospective portion of a term extension must be (more than) matched by losses either to ‘buyers’ (citizens who buy music, broadcasters, etc), or to ‘intermediaries’ (retailers and/or ‘public-domain’ music labels).<sup>7</sup> The buyers lose because they have to pay higher prices than they would otherwise, while the intermediaries lose because, without an extension, they would have seen an increase in profits.

Thus, copyright expiry has no effect on price if, and only if, these intermediaries are able to simultaneously maintain prices at their original (monopoly) levels while simultaneously denying to the original copyright holders any share of the surplus generated. This requires us to imagine that, when a recording falls out of copyright, despite the fact that anyone may now provide that recording (and at any price), prices are maintained at the same monopoly level as they were when the recording

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<sup>6</sup>One might imagine that were the music industry truly committed to evidence-based policy-making on this matter they would have made every effort to make such data available to academics for precisely this purpose rather than keeping almost all material, including the PwC and LECG reports, confidential.

<sup>7</sup>The retrospective portion refers to the term extension as applied to existing works while the prospective portion relates to its application to new works. We focus on the retrospective part because the effects of the prospective extension, being felt only 50 years or more into the future, are so negligible as to render them irrelevant. This fact is reflected in the music industry’s own figures, as found, for example, in the PwC report where the calculation of the music industry gains relate entirely to the retrospective portion of an extension.

was under copyright. Furthermore this price maintenance must not be carried out by the original owner of the recording but either by retailers or by some other ‘public-domain’ label.

This proposition is frankly ludicrous.<sup>8</sup> If retailers have sufficient market power to keep *all* of the price reduction for themselves rather than passing it on to consumers there is a major competition issue, involving extensive collusion, which has not yet been noticed, or mentioned, by anyone.<sup>9</sup> If it is not retailers then it must be ‘public-domain’ labels who are maintaining the original monopoly price in the face of competition, not simply from other ‘public-domain’ labels, but from the label (and artists) who originally issued the recording. And not only that: without lowering the price at all these public domain labels are able to take over the entire market for themselves – leaving the original copyright holders out in the cold.<sup>10</sup>

On this issue, it is also worth reiterating the simple point made in the CIPIL Report that recent experience shows that (fully)<sup>11</sup> out-of-copyright works will be offered in digital form for zero price. For example, Project Gutenberg has issued over 25 thousand public domain books in electronic form, archive.org hosts tens of thousands of public-domain works, and there are a variety of EU or National Government sponsored digitization efforts across Europe. In all cases the works are

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<sup>8</sup>Simply on the political level one would have to ask why these groups, who in theory have so much to lose from a term extension, have been so silent in opposing a term extension – a silence all the more remarkable in comparison with the very vocal activity of those within the music industry who stand to gain from term extension.

<sup>9</sup>Furthermore, one would assume that these retailers have sufficient market power to extract similar amounts on in-copyright works – in which case going out of copyright would still result in a reduction in price.

<sup>10</sup>This is equally implausible both in theory and in fact – a cursory examination of out-of-copyright classical musical works on e.g. Amazon, shows that many public-domain recordings continue to be issued by their original label. To take just one example: Glenn Gould’s famous 1955 recording of Bach’s Goldberg variations was released in 1957 and therefore entered the public domain last year. It remains available from its original label (Sony/CBS) but has also seen new versions issued by ‘public-domain’ labels such as Naxos Historical.

<sup>11</sup>For recordings authorial copyright may remain even if recording copyright has expired.

made available for free to users and it seems certain that such efforts would rapidly occur for recordings.<sup>12</sup>

To sum up: it strains credulity past breaking point to argue that a term extension will provide large benefits to the music industry while having no impact on buyers – and this means ordinary citizens – in the form of higher prices than would otherwise occur. Money cannot come out of thin air and every euro that goes to the music industry industry will have to come from somewhere, with the most likely location being the pockets of EU citizens.<sup>13</sup>

**2.2. Alleged Inaccurate Approximation in Welfare Calculations.** There is one point where actual inaccuracy is alleged by LECG. This is in relation to the formula used for computing the welfare found on page 26 or the original CIPIL report. They focus on the use of the approximation  $(1 - b^k) = 1$ , and argue that, using the parameters provided, this is not a valid approximation and biases the results. What they fail to notice – and is crucial – was that this approximation was intended to be made at the same time as the approximation for the proportional gain in revenue. As we state on p.26:

“Now the proportional increase in revenue is easily calculated and can be shown to be approximately equal to  $b^T d^T$ . Making this approximation as well as that  $(1 - b^k) \approx 1 \dots$ ”

While the first approximation overstates the gains from an increase in term, the second overstates the costs. Specifically the correct formula for the net change in

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<sup>12</sup>In fact at least one project, specifically focused on classical recordings, is already under way in the UK in the form the CHARM project based at King’s College London funded by the Arts and Humanities Research Council.

<sup>13</sup>Worse, because of the monopoly deadweight loss, each euro of gain to the music industry will result in more than a euro loss to others. We also emphasize again that this discussion refers to the retrospective portion of the extension which, as pointed out in a previous footnote, is all that really matters in this case.

welfare without any approximations is:  $\Delta W = A \cdot D$  where:

$$A = N(T)q(N)\frac{b^T(1-b^k)}{(1-b)(1-d)}$$

$$D = \text{Determinant} = \frac{y(N)s(N)d^T}{q(N)}\frac{(1-(db)^k)}{(1-(db)^T)(1-b^k)} - 1$$

A term extension is therefore a ‘good idea’ if social welfare increases  $\Delta W = A \cdot D > 0$  and a ‘bad idea’ if  $\Delta W < 0$ . This formula is very similar to the one in the text except that the whole expression is multiplied by  $(1-b^k)$  and the first term in the determinant, when compared to the expression on page 26, has been multiplied by:<sup>14</sup>

$$X = \frac{(1-(db)^k)}{(1-(db)^T)(1-b^k)}$$

It is important to observe that  $A$  is always positive so the net welfare change is positive/negative depending *only* on whether  $D$  is positive/negative. Hence the decision about term extension depends only on the determinant  $D$ . At the same time the magnitude (but not the sign) of the overall welfare effect tends to vary substantially due to the  $A$  parameter. For example, as the discount rate gets high (and therefore a term extension is less likely to be a ‘good idea’) the determinant gets more negative – as one would expect – but the welfare loss may actually go down. This is because welfare is computed as a net present value of losses/gains in all periods – present and future. As a result, while the loss in each period might be going up, because this cost is more heavily discounted, the overall figure is going down. These sorts of effects mean it is better to focus on the determinant as it gives a ‘cleaner’ picture of a term extensions positive/negative effects.<sup>15</sup>

How much difference then does using the full formula make as opposed to the approximation? The answer is very little (which is why the approximation was used). Specifically, the following table gives a comparison of the determinant and

<sup>14</sup>We have also taken the  $q(N)$  term out of the determinant into  $A$  but this is not a change to the formula, merely a rearrangement.

<sup>15</sup>It is also less subject to error in parameter estimates.

welfare with the approximate formula and the full formula using the parameter values used in the appendix to section 8 (p.47-48):

	<b>Approx</b>	<b>Full</b>
Determinant	-0.45	-0.43
Welfare	-0.078	-0.054

Thus, while the overall welfare loss is slightly lower (5.4% of present revenues vs. 7.8% of present revenues) the determinant is almost the same as before – and most of the change in welfare is coming, not from the determinant, but from the extra factor of  $(1 - b^k)$  in  $A$ . As discussed above, the determinant is the more important parameter to focus on here, since the overall welfare effect tends to vary substantially due to the  $A$  parameter. Using the full expression rather than the approximation, makes little difference to the determinant and hence whether a term extension is optimal.

We have also compared the full formula and the approximate one for a range of other parameter values including those in our ranges most favourable to a term extension (discount rate = 5%, cultural decay = 3%, elasticity = 1.5) and found that a term extension is welfare reducing in all cases. Of course, as LECG point out, by using a suitably (extreme) parametrisation one can always get a result the other way – with a large enough elasticity and a low enough discount rate any given term extension can be welfare improving. However we believe the parametrisation used were already reasonably conservative and see no reason to change our view on this.<sup>16</sup>

To summarize: LECG have misunderstood that there was another approximation being used which “went the other way”. **Doing the full calculation without**

<sup>16</sup>The really crucial parameter is the discount/interest rate with higher rates implying lower terms. Given that the music industry’s own commissioned PwC report used a discount rate of 12.3% (nominal) we find it hard to understand how other calculations can then use very low discount rates.

**any approximation does not alter the results regarding the merits of a term extension in any substantial way.**<sup>17</sup>

Finally, while it is true that one can choose parameters such that term extension is welfare improving these would either lie outside of what we believe are plausible parameter ranges. Furthermore, as was pointed out in the conclusion of the CIPIL report (“Irreversibility of term extensions”), the one-way nature of changes in the term of protection mean that “the case for an extension would have to be especially compelling to make it preferable to keeping term at its current length.”<sup>18</sup> Any argument for a term extension based on selecting particularly favourable parameter values could never be termed ‘compelling’. As such we see no reason to alter our original conclusion that **“it would be particularly inadvisable, given our present state of knowledge, for a rational policy-maker to extend the term of copyright in sound recordings.”**<sup>19</sup>

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<sup>17</sup>It is interesting to note that if the LECG report had been public, or had been made available to CIPIL for a response, LECG’s confusion on this point could easily have been corrected.

<sup>18</sup>CIPIL report p. 51.

<sup>19</sup>Ibid.