



Reply

# Reply to George S. Ford's 'A Counterfactual Impact Analysis of Fair Use Policy on Copyright Related Industries in Singapore: A Critical Review'

# Roya Ghafele

OxFirst Limited, Oxford Science Park, Oxford OX4 4GP, UK; roya.ghafele@oxfirst.com

Received: 7 March 2019; Accepted: 3 December 2019; Published: 15 January 2020



Ford's 'Comments (Laws 2018, 7(4), 34; https://doi.org/10.3390/laws7040034, https://www.mdpi.com/2075-471X/7/4/34)' are biased by a partisan approach to the issues at stake and cannot be based on scientific evidence. The article "A Counterfactual Impact Analysis of Fair Use Policy on Copyright Related Industries in Singapore", which Gibert and Gafelle wrote together nearly a decade ago, came under heavy criticism by George S. Ford from an organization named the Phoenix Centre for Advanced Legal and Economic Public Policy Studies in an article 'A Counterfactual Impact Analysis of Fair Use Policy on Copyright Related Industries in Singapore: A Critical Review'. (subsequently 'the fair use study') The Fair use study was peer reviewed by LAWS and supports the hypothesis that a more flexible fair use policy is correlated with faster growth rates in private copying technology industries and fewer negative consequences than copyright holders may desire to see. The findings of the Fair use study upset Ford as well as a host of different institutions advocating for copyright owners, such as International Federation of Reproduction Rights Organizations; Motion Picture Association; Publishers Association of Australia; New Zealand Society of Authors or Recorded Music NZ-RMNZ. Ford's article, however, neither contains novel research, nor is it an effort to update this fairly dated analysis, which reflects data nearly twenty years of age. Rather, it is an unnecessary duplication of an old analysis with only some minor modifications, which serve to show that fair use is actually not beneficial to the economy. At the end of this peculiar exercise, Ford himself admits that this analysis is meaningless. The rest of Ford's article consists of discussing potential limitations of the Fair use study, in a manner which suggests the authors had never disclosed them (which however they had) and thus is misleading. Ford's most fundamental point of criticism is hinged on a supposed lack of evidence regarding the parallelism assumption, which he himself admits is impossible to offer. Contrary to Ford's analysis, the Fair use study has the merit of being fully reproducible, which is not the case for Ford's article. Also, contrary to Ford's article, the Fair use study has the advantage of carefully drafted limitations and of offering genuine research insights.

**Keywords:** public policy advocacy; copyright; piracy; fair use; International Federation of Reproduction Rights Organizations; Motion Picture Association; Publishers Association of Australia; New Zealand Society of Authors; Recorded Music NZ-RMNZ; Singapore; competition law; fair use

# The Historical Evolution of Ford's Politically Motivated Article

The article, "A Counterfactual Impact Analysis of Fair Use Policy on Copyright Related Industries in Singapore", (subsequently 'the fair use study') co-authored nearly a decade ago, has come under heavy criticism by George S. Ford (subsequently 'Ford'), the Chief Economist of an organization named the Phoenix Centre, which does not disclose its sources of funding. The Fair use study supports the hypothesis that a more flexible fair use policy is correlated with faster growth rates in private copying technology industries and fewer negative consequences than copyright holders may wish.

Ford's article, 'A Counterfactual Impact Analysis of Fair Use Policy on Copyright Related Industries in Singapore: A Critical Review' neither contains novel research, nor is it an effort to update this fairly dated analysis, which reflects data nearly twenty years of age. The author's main argument consists of an unnecessary duplication of the analysis already undertaken in the Gibert and Ghafele article with only some minor modifications, which serve to show that fair use is actually not beneficial to the economy. At the end of this peculiar exercise, Ford himself admits that this analysis is meaningless as he himself finds the underlying research approach he takes unconvincing. The rest of his article consists of discussing potential limitations the Gibert and Ghafele article recognizes anyway², but in a manner that suggests these had never been disclosed.

The author then continues in a lengthy manner to re-explain the research methods.<sup>3</sup> This is done in a pseudo-quantitative manner, which adds no value to the analysis. The desired effort to make his lobbying efforts look scientific appears as a failure. Neither the mathematical equations, nor the lengthy discussion of the nature of the method help disguise the vested interests that motivated the Ford article. This statement is supported with reference to an early version of this article that can still be found on the Phoenix Centre's website<sup>4</sup> ('Phoenix website version') as well as the reaction his criticism of Benjamin Gibert provoked among IFFRO, the International Federation of Reproduction Rights Organizations,<sup>5</sup> as well as the Australian Publishers Association<sup>6</sup> and his engagement for the Motion Picture Association.<sup>7</sup>

A look back in history shows that this Phoenix website version of the Comment now published with MDPI was publicised through the press in an effort to influence public opinion.<sup>8</sup> The language used in the Phoenix website version is full of unacceptable, defamatory language with insults such as 'junk science', 'stunningly poor quality', 'defective', 'fatal errors and defects' and a description of Mr. Benjamin Gibert as a person 'who is apparently building a well-earned reputation for low quality empirical work'.<sup>9</sup> Such ad hominem insults are entirely unsupported and false. In addition, Ford does not disclose the sources of funding of his article with 'Laws'. While the Ford article published by 'LAWS' was, in a lengthy exchange with the editors, purged of such language, the Phoenix website version helps to understand the intentions of the author.

The political motivation for Ford's article can hardly be denied. History shows that Ford's effort to attack the work of Mr Benjamin Gibert have been very warmly received by stakeholders. States the

See Chapter 5 of his Comment and footnote 4 in his Comment. The Gibert Gafelle study was an invitation to do further research (and not a policy paper of some sort). Related updates will be posted on a website dedicated to this purpose at www.fairusestudyupdates.com Roya Ghafele is only responsible for pages 1-6.

<sup>&</sup>lt;sup>2</sup> See his comment p. 4 on his critique on statistical errors, as well as his criticism raised in Chapter 4 of his Comment.

See reference to Ford's Comment on, p. 2 and p. 3.

The Economic Impact of Expanding Fair Use in Singapore: More Junk Science for Copyright Reform. Perspectives—Phoenix Center for Advanced Legal & Economic Public Policy Studies. http://www.phoenix-center.org/perspectives/Perspective16-01Final.pdf.

O. Stokkme: CEO at IFFRO. Access to and usages of copyright works in the digital world. IFFRO. 7th publishing Assembly of Turkey. 12th of May 2016. Istanbul, at p. 2 and p. 3.

Australian Publishers Association. A Fair Balance. Impacts of US style fair use on educational publishing. See page 'uncertain impacts of US-style fair use.' https://www.publishers.asn.au/documents/item/418.

The Motion Picture Association Asia-Pacific Reporter. Issue January–June 2017. Promoting and Protecting the Screen Commuity, p. 20; The Motion Picture Association Asia-Pacific Reporter. Issue July–December 2016. Promoting and Protecting the Screen Commuity, pp. 11, 19, 26, 27, 31.

The Economic Impact of Expanding Fair Use in Singapore: More Junk Science for Copyright Reform. Perspectives—Phoenix Center for Advanced Legal & Economic Public Policy Studies. http://www.phoenix-center.org/perspectives/Perspective16-01Final.pdf; 16 February 2016—The empirical analysis by Gafelle and Gibert in their Singapore Study is of stunningly poor quality; New Phoenix Center Study Refutes Claim That Singapore's Expanded ... https://www.thestreet.com/.../new-phoenix-center-study-refutes-claim-that-singapores-; Phoenix Center Responds to Singapore Fair Use Study—The Illusion of More. http://illusionofmore.com/phoenix-center-responds-to-singapore-fair-use-study/; The Economic Impact of Expanding Fair Use in Singapore: More Junk Science for Copyright Reform. Phoenix Center Perspectives No. 16-01; 12 September 2016. https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=2837315.

The Economic Impact of Expanding Fair Use in Singapore: More Junk Science for Copyright Reform. Perspectives—Phoenix Center for Advanced Legal & Economic Public Policy Studies. http://www.phoenix-center.org/perspectives/Perspective16-01Final.pdf at p. 1, p. 2., p. 9., p. 12, as well as footnote 4 at p. 14.

former CEO of IFFRO, the International Federation of Reproduction Rights Organisations (the main international network of collective management organizations) clearly in writing: 'the Economy and Statistics Expert Dr George S. Ford, Chief Economist at the Phoenix Center for Advanced legal and economic public policy studies totally 'slaughtered' the report. He ridiculed both its methodology and findings, depicting them as pure 'junk science' and a document of no value, other than showing the lack of skill and sloppy and nonsensical analysis of its author . . . Another . . . report purporting to show positive effects of the introduction of 'fair use' in the Singapore copyright legislation received the same thorough analysis by Ford, who concluded that this was 'another junk science report.' <sup>10</sup>

The political interest in this Phoenix website version can be further substantiated by the fact that the former Chief Executive Office of the worldwide biggest international network of collective management organizations discusses at length Ford's analysis of the report on fair use and another report Gibert did and underlines the strategic importance of such a 'slaughter,' as he puts it. But the CEO of IFFRO is not the only one to publicly express gratitude to Ford for 'showing the lack of skill and sloppiness of the author', also the Motion Picture Association (MPA) makes continuously positive mention of his advocacy work on 'fair use.' The Australian Publishers Association again uses his work in its policy advocacy on 'fair use'.<sup>11</sup>

Ford is also featured in the Motion Picture Association's Asia Pacific Reporter (MPAA) and his successes in supposedly educating Asian policymakers on the adverse effects of fair use are well documented there. Just a look at two issues of the MPAA Newsletter shows multiple references to his efforts to explain to policy makers the adverse effects of fair use. In its 1st issue of 2017, it reports on Ford's work with the Thai government, where he apparently illustrated the adverse effects that fair use had on Singapore. In its 2016 edition, it equally reported that New Zealand based 'NZSA' (The New Zealand Society of Authors) worked together with the local music association (Recorded Music NZ-RMNZ) to invite 'noted US economist Dr George S. Ford of the Phoenix Centre to New Zealand to meet with Members of Parliament, government policy officials, academics and industry.' At this occasion, he also presented on the topic of 'the status of empirical evidence on copyright policies' is.e., the adverse effects of fair use.

Based on the information publicly available, it appears that the Phoenix Centre, with Ford as its Chief Economist, is politically motivated to censure those arguing in favour of fair use. It seems that Benjamin Gibert here came under such particular scrutiny and unsubstantiated criticism. The Ford article published in *Laws* may be read in light of Ford's historical activities representing the Phoenix Centre.

#### The Aim Was to Inspire Further Research Rather Than Influence Politics

The key conclusion of Ford's article is that the Fair Use article is an abuse of trust of policy makers.<sup>15</sup> However, the purpose of the Fair use study was to offer a baseline for future research in this

O. Stokkme: CEO at IFFRO. Access to and usages of copyright works in the digital world. IFFRO. 7th publishing Assembly of Turkey. 12th of May 2016. Istanbul, at p. 2 and p. 3.

Australian Publishers Association. A Fair Balance. Impacts of US style fair use on educational publishing. See page 'uncertain impacts of US-style fair use.' https://www.publishers.asn.au/documents/item/418.

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The Motion Picture Association Asia-Pacific Reporter. Issue July-December 2016. Promoting and Protecting the Screen Commuity, pp. 11, 19, 26, 27, 31.

See also Ford's Comment. 'The Lisbon Council's 2015 Intellectual Property and Economic Growth Index: A Showcase of Methodological Blunder.' Perspectives. Phoenix Center for Advanced Legal and Economic Public Policy Studies. 29 June 2015, http://www.phoenix-center.org/perspectives/Perspective15-03Final.pdf, as well as Phoenix Center finds Critical Flaws in Lisbon Council Copyright Study. http://www.phoenix-center.org/perspectives/Perspective15-03PressReleaseFinal.pdf.

<sup>&</sup>lt;sup>15</sup> See his conclusions on page 9.

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area<sup>16</sup>, which is a distinctly different goal. In doing so, the Fair use study includes a lengthy discussion on its limitations, <sup>17</sup> precisely so to caution its usage among political circles. <sup>18</sup>

Original Text Ford Text Take Away

Further research, containing more comprehensive data sets and possibly also singling out international trade aspects, would benefit the debate on the interplay of copyright law and economic growth. *Laws* 2014, p. 328

We view our paper not so much as a proof that fair use increases private copying technology markets, but as a starting point to usher in more research into the subject by highlighting that the relationship between copyright, fair use, and economic growth in technology and copyright industries is far more complicated than traditional copyright discourse suggests. A possible springboard into more research could be to isolate trade effects. **p. 347** 

While evidence on fair use policies is welcome and critical to informed policy reform, Gafelle and Gibert's flawed empirical analysis, in my view, fails to shed light on the consequences of modifications to fair use policies . . . . Since policymakers are rarely skilled in statistical analysis, there is a trust that must be built between the research and the policymaking communities. Unskilled analysis threatens that trust. The formulation of public policy, especially when the economic consequences are large, deserves skilled and dispassionate empirical work. pp. 10, 11

Ford says this study is for policy purposes, whereas the original text makes it clear that it serves as a springboard for further research. This is seriously misleading.

Importantly, the article was prepared for an audience of legal scholars with the intention to inspire further research. The journal *Laws* never had the fair use article nor Ford's article peer reviewed by statisticians.

The research in the fair use study has been very cautious in stating what insights can and cannot be gained from it and the conclusions only state that the report 'seems' to suggest a certain trend and not that the findings 'do' suggest a trend: <sup>19</sup>

'We caution that statistical analysis can never capture the full spectrum of socioeconomic behaviour. Nor can a correlation serve as a baseline for making statements on cause and effects. All that the limited statistical assessments can do is offer an insight on potential dynamics between policy and economic performance. Against this background, our preliminary results suggest that fair use policy was correlated with the growth of the private copying group in Singapore.'20; or 'This estimate is rough because it does not account for the changes observed among non-beneficiary groups, nor does it factor out trade aspects'21; furthermore, it was stated that 'These limitations impose some constraints on the conclusions that can be drawn from the data but the model remains valid in its circumstances'22 and that 'The counterfactual impact analysis of copyright law amendments in Singapore seems to support our hypothesis that a more flexible fair use policy is correlated with faster growth rates in private copying technology industries.<sup>23</sup> Furthermore, 'We re-emphasize that our analysis *suggests* a correlation between these factors, but more research would be necessary to gain a more comprehensive understanding of the economic dynamics surrounding exceptions and limitations to copyright law.'<sup>24</sup>

Nowhere in the Fair use study is it suggested that politicians should act upon its analysis. All of this is ignored by Ford. Against this background, Ford's article appears highly misleading. The table below offers an overview of what was actually stated and what Ford made out of those statements:

<sup>&</sup>lt;sup>16</sup> Fair Use Study, pp. 328 & 347.

<sup>&</sup>lt;sup>17</sup> Fair Use Study, pp. 340, 244–346, 348.

<sup>&</sup>lt;sup>18</sup> Fair Use Study, p. 328.

<sup>19</sup> See for example.

<sup>&</sup>lt;sup>20</sup> Ibid, p.340.

<sup>&</sup>lt;sup>21</sup> Ibid, p. 343.

<sup>&</sup>lt;sup>22</sup> Ibid, p. 346.

<sup>&</sup>lt;sup>23</sup> Ibid, p.347.

<sup>&</sup>lt;sup>24</sup> Ibid, p. 347.

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Original Text	Ford Text	Take Away
We re-emphasize that our analysis <i>suggests</i> a correlation between these factors, but more research would be necessary to gain a more comprehensive understanding of the economic dynamics surrounding exceptions and limitations to copyright law. We view our paper not so much as a proof that fair use increases private copying technology markets (p. 347)	Gafelle and Gibert conclude that 'Fair use is good for the economy' (p. 4)	Ford states that that authors said that Fair use is good for the economy. But the authors have never said that!  He does not stick to the text, which suggests his partisan approach to the topic.
Page 346: These limitations impose some constraints on the conclusions that can be drawn from the data but the model remains valid in its circumstances;  or page 346: The counterfactual impact analysis of copyright law amendments in Singapore seems to support our hypothesis that a more flexible fair use policy is correlated with faster growth rates in private copying technology industries.	Since policymakers are rarely skilled in statistical analysis, there is a trust that must be built between the research and the policymaking communities.  Unskilled analysis threatens that trust. The formulation of public policy, especially when the economic consequences are large, deserves skilled and dispassionate empirical work. (p. 9)	Whereas the original text very cautiously discusses the various constraints, the Ford text suggests these were never prepared and insults the authors as being unskilled. Such ad hominem comments are offensive.
p. 340: We caution that statistical analysis can never capture the full spectrum of socioeconomic behavior.  All that the limited statistical assessments can do is offer an insight on potential dynamics  Against this background our preliminary results suggest fair use policy was correlated with the growth of the private copying group in Singapore; Page 343: This estimate is rough because it does not account for the changes observed among non-beneficiary groups, nor does it factor out trade aspects;	Attention should be paid to the quality of the forecasting method as well as the statistical consequences of using a prediction in a statistical text (p. 4)	The original text cautions about its limitations and only speaks of potential dynamics, suggestions and rough estimates.  Ford instead ignores all of that and says the authors should be more cautious. This is highly misleading.
No such statement was ever made. Contrary to Ford, we refrained from such value judgments.	Thus, if the Fair Use Study tells us anything, then it is that Singapore's 2005 copyright law was a bad one. (p. 9)	Ford makes up a statement which is nowhere in the text.
No such claim was ever made, see above. Verbatim, a growth rate of $67\%$ or $-30\%$ is not reported in the study. No such data can be found in the report.	The Fair Use Study on the economic impacts of Singapore's change in its fair use policies claims to show a positive effect (+67%) on industries that manufacture goods useful for private copying of copyrighted works and a negative effect (-30%) on the copyright industries.	Ford makes up data. No such data was ever published in the text.
Though this work yields useful quantitative measures of fair use-related industries, it does not capture the full extent of fair use's influence on economic growth and innovation. Our study attempts to advance research in this field by assessing the extent to which implementing fair use or fair-use style legislation stimulates growth in selected high-technology industries and copyright related sectors in Singapore. (p. 328)	The conclusion of the Fair Use study is that expanded fair use is good for the Private Copying Group and does not harm the rights holders. (p. 4)	Ford says the authors drew the conclusion that Fair is 'is good', but no such statement was ever made. This is highly misleading.

# Conclusion—Ford's Piracy Argument Lacks Conceptual Clarity and Is Unrelated to the Original Article

Ford then introduces the argument that fair use leads to piracy. This argument is detached from the Fair use study.<sup>25</sup> In doing so, he fails to define the term 'piracy.'<sup>26</sup> It is hence impossible to understand what phenomenon he is actually seeking to describe. Possibly this can be explained by the fact that the combat of piracy is high on the political agenda of some copyright holders and this may explain this sudden introduction of a novel argument unrelated to the Fair use study.

Fair use exists to balance user and right holder interests in copyright, securing an environment to promote science and the arts. In the age of the Internet, where private copying technologies enable time-and space-shifting of copyrighted works by consumers, the boundaries of what constitutes fair use will have an important impact on the dissemination of information, the consumption of copyrighted works, the development of innovative copying technologies, and the growth of high-value technology sectors. Fair use protects a number of legitimate uses of a work from the charge of copyright infringement and thus increases the social value of copyrighted goods to users. In particular, the language used in the Singaporean Copyright Act embeds a degree of flexibility into the law in terms of determining whether or not a particular use of a copyrighted work is fair.<sup>27</sup> This is in stark contrast to what Ford is trying to depict.

It is highly unjust that Ford does not stick to the 'verbatim' text, but instead draws conclusions upon statements that were never made. Comparing research on fair use to that on Chihuahua dogs is a simplification that misleads the reader to believe that the study of social phenomena is the same as that of natural ones. It is not. The study of law and economics is different from veterinary research and one cannot be understood through the lens of the other.

George S. Ford's criticism of the study 'A Counterfactual Impact Analysis of Fair Use Policy on Copyright Related Industries in Singapore' is unwarranted. His most fundamental point of criticism of the lack of the parallel path assumption is hinged on a supposed lack of evidence, which he himself admits is impossible to offer.<sup>28</sup>

Paolo Eusebi's Statistical Analysis of George Ford's Comment' A Counterfactual Impact Analysis of Fair Use Policy on Copyright Related Industries in Singapore: A Critical Review' <sup>29</sup> by Paolo Eusebi<sup>30</sup>

Key Take Away

Ford's key point of criticism relates to the parallel path assumption. He, however, invalidates his own criticism by admitting that the parallel path assumption cannot be formally tested.

Ford's Invalidates His Own Criticism of the Parallel Path Assumption

Ford's key point of criticism relates to the parallel path assumption. He, however, invalidates his own criticism by admitting that the parallel path assumption cannot be formally tested. 'Since it is not possible to observe the outcomes of the treated group as if they were not treated (thus requiring a counterfactual from the control group), this parallel path assumption cannot be formally tested.<sup>31</sup>' Ford himself recognizes the impossibility of this undertaking and it is highly unjustified that Ford accuses the authors of a failure.

See, for example, p. 9 of Ford's document: Lead to a massive increase in the sale of pirating technology.

<sup>&</sup>lt;sup>26</sup> Ford, p. 9.

<sup>&</sup>lt;sup>27</sup> Fair Use Study, pp. 328, 330, 331, 333, 334, 336.

<sup>&</sup>lt;sup>28</sup> Ford, p. 3.

Independent Statistician; Department/Faculty/School/Institute, University Ospedaliera di Perugia, Andrea delle Fratte, 06156 Perugia, Italy; paoloeusebi@gmail.com. Paolo Eusebi is solely responsible for pp. 7–10.
 Ford, ibid p.8.

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Ford furthermore reports in his article two plots. Figure 2 of his article draws "the data for all years of the three groups", while in Figure 1 only the pre-treatment period is reported. Figure 2 of his article is used for describing the post-treatment period, while Figure 1 of his article serves to characterize the pre-treatment period.<sup>32</sup>

It makes no sense to use both, Figures 1 and 2 in Ford's article. Figure 2 of his article provides sufficient insights to look at both pre- and post-treatment period and this makes Figure 1 redundant.

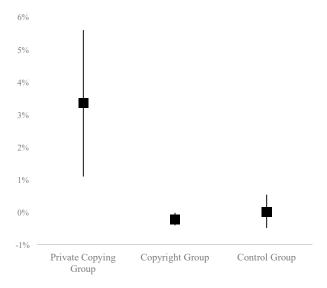
### Ford Fails to Quantify the Forecast Error

Ford criticizes the Fair use study for ignoring a potential forecast error when predicting the contribution of the 'private copyright group', the 'copying group' and the 'control group' to Singapore's GDP in 2010; discussed as Value Added to Gross Domestic Product and expressed in Percentage Rates % of the three sectors. Ford fails to quantify such uncertainty himself, even though Ford has the data at hand.

The same regression analysis was carried out as performed by the Fair use study for the data points before 2005 and the level of prediction uncertainty was calculated for the year 2010 for the three sectors.

For the three sectors, the observed contribution to (GDP %) in 2010, as well as the predicted level for the same year with a 95% Confidence Intervals (95% CI) can be reported. The estimated effect was obtained by subtracting the predicted contribution to GDP in 2010 from the observed one, which can be assumed to be deterministic and not influenced by random error.

The impact of the treatment on the 'private copying group' can be appreciated by looking at the prediction intervals, which shows a similar effect of treatment in the 'copyright group' and the 'control group' and a significant difference between the 'private copying group' and the 'control group', as well as between the 'private copying group' and the 'copyright group'. (see Figure 1)



**Figure 1.** Estimated effects of the Fair Use Study (Value added as % of GDP) dispose of a 95% Confidence Interval.

# Multiple Treatments

By raising the point of multiple treatments, Ford ignores that the difference-in-differences methodology is designed to encapsulate multiple treatments.<sup>33</sup> In criticizing the Fair use study

<sup>&</sup>lt;sup>2</sup> Ford, ibid, p. 7.

Flores and Mitnik 2009) Flores, Carlos A., and Oscar A. Mitnik. 2009. Evaluating Nonexperimental Estimators for Multiple Treatments: Evidence from Experimental Data. Bonn: IZA Institute of Labor Economics, pp. 7–14.

for having discarded the possibility of multiple treatments, Ford confuses various arguments. The argument that 'there were many significant changes in the 2005 revision of Singapore's copyright law $^{34}$ ' is presented alongside the occurrence of 'a bursting technology bubble in 2001 and a global recession in 2008.' $^{35}$ 

# Hypothesis Testing and Sample Sizes

Ford argues that the aggregating of individual data points from the **Singapore** Standard Industrial Classification code (SSIC) hampers the power of the Fair use study as it reduces the sample size. This criticism is unwarranted as the aggregation of data in the Fair use study is in line with what is suggested by Angrist and Pischke: 'Standard error that comes out of grouped estimation are likely to be more reliable than clustered standard errors in samples with few clusters.<sup>36</sup>'

### Scale Differences

Another point Ford raises relates to the choice of the control group. In doing so, he dismisses his own point of criticism. This is done by qualifying his criticism as 'his personal opinion'. Ford fails to make clear if his criticism is actually justified or not, which is very different from the personal and subjective interpretation he offers when depicting another 'flaw' of the study: In my view, Gafelle and Gibert make an inappropriate choice of control group.'<sup>37</sup>

Ford himself acknowledges the reasoning applied in the Fair use study, when he states that a 'control group can also be immune.<sup>38</sup>' He then continues to write, however, that even if the 'control group were immune' this group would be 'suspect'<sup>39</sup>. He fails, however, to explain what leads him to this conclusion.

Ford, furthermore, argues that the estimated effects should be corrected for the "scale differences" between the mean value of the Control group (about 0.5%) and the Private Copying Group (about 5%).

In fact, an equal increase of GDP% should be considered as a net gain of the smaller sector over the larger one. Referring to Table 1 of Ford's Comment, one can see that in the Control Group there is a relative effect of 2.3% (0.44%/0.43-100%), while in the Private Copying Group the estimated relative effect is equal to 198.8% (5.02%/1.68-100%)). (see Table 1)

<b>Table 1.</b> Value Added to GDP in 2010 by the Private Copying Industry, the Copyright Industry and the
Control Group: Observed Value, Predicted Value and Estimated Effects with a 95% Confidence Interval

Industry Group	2010 Observed	2010 Predicted (95% CI)	Effects (95% CI)
Private Copying	5.02%	1.68% (-0.56% to 3.92%)	3.34% (1.10% to 5.58%)
Copyright	0.55%	0.78% (0.59% to 9.64%)	-0.23% (-0.41% to -0.04%)
Control	0.44%	0.43% (0.04% to 0.82%)	0.01% (-0.49% to 0.52%)

<sup>&</sup>lt;sup>34</sup> Ford, ibid p. 5.

<sup>&</sup>lt;sup>35</sup> Ford, ibid p. 5.

<sup>&</sup>lt;sup>36</sup> Angrist and Pischke 2008) Angrist, Joshua D., and Jörn-Steffen Pischke. 2008. Mostly Harmless Econometrics: An Empiricist's Companion. Princeton: Princeton University Press, p. 234.

Ford, ibid p. 6.

<sup>&</sup>lt;sup>38</sup> A possible case where both the treated and control groups receive the treatment but the control group remains valid (possibly) is if the control group is genetically immune from the disease being treated (or the treatment itself). Even so, the control group would be suspect. p. 6 Footnote 2.

<sup>&</sup>lt;sup>39</sup> Ibid.

<sup>&</sup>lt;sup>40</sup> Ford, ibid p. 7.

Let us assume that the weight of the Control Group was equal to the weight of the Private Copying Group. This would be possible by multiplying 0.44% by 11.41. The multiplication of 0.43% by 11.41 would lead to 4.91%. The relative difference would be 5.02% - 4.91% = 0.11%. Then, the adjusted difference would be 3.34% - 0.11% = 3.23%. This insight pays tribute to the impact of the effect.

Ford's Own Analysis Is Unreplicable

Despite Ford's criticism of the Gibert et al. article, Ford fails to provide the necessary data to replicate his analysis. It is hence impossible to know what Ford did here as he did not provide the necessary data to replicate his analysis. This makes the analysis unreplicable. Worth mentioning is also that he rejects his own doing at the end. 'I do not contend that these findings are actually valid.<sup>41</sup>'

Ford also concludes by stating that the report reflects a growth rate of 67% for private copying industries and a loss of 30% for copyright industries.<sup>42</sup> These data points are, verbatim, not provided in the original article written by Gibert et al.

#### Conclusions

The criticisms contained in Ford's article of the Fair use study are entirely unjustified. Ford's key point of criticism relates to the parallel path assumption. He, however, invalidates his own criticism by admitting that the parallel path assumption cannot be formally tested. Ford then criticises the Fair use study for having failed to recognize the forecast error, but fails himself to undertake such an analysis. He then criticises the Fair use study for having failed to recognize multiple treatment effects. However, this is what a counterfactual impact analysis allows to study. Equally, Ford criticises the Fair use study for having been based on information that was grouped together. Yet, this type of approach is commonly used in the literature. He qualifies his criticism of the 'scale effect' as his personal opinion. Hence, it is unclear if Ford considers this actually an error or if this is just his personal impression. I undertook such an additional analysis and found that the insight pays tribute to the impact of the effect. The only time Ford tries to undertake an additional regression analysis, he fails to disclose the underlying data and this makes his own independent work unverifiable. Therefore, Ford has failed to document or support his criticism of the Fair use study and fails to offer with this comment a meaningful contribution to the debate about fair use.

Funding: This research received no external funding.

Conflicts of Interest: The authors declare no conflict of interest.



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<sup>&</sup>lt;sup>41</sup> Ford, ibid p. 9, Footnote 4.

<sup>&</sup>lt;sup>42</sup> Ford, ibid p. 9.