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Dear Professor Monti and Mr Liikanen,

Competition Policy, Microsoft, and 'Trusted Computing'

I understand from the 'Economist' magazine that you will be moving to a conclusion in the competition policy matter concerning Microsoft within the next two months. There is a new aspect of this case to which I wish to draw your attention, namely 'Trusted Computing' (TC).

My interest in this matter is twofold. The first is academic; I am the co-founder (with Hal Varian) of the study of the economics of information security. We have established that many failures of information security occur not so much for technical reasons but because incentives are misaligned, and principals do not bear the full costs of their actions. Our work has influenced European policy, for example, in COM(2001)298 final, on Network and Information Security.

The second comes from work in public policy. I chair the Foundation for Information Policy Research, which is the UK's leading think-tank on Internet and technology policy. We have recently been working with the UK government on implementing the EU Copyright Directive (EUCD), and trying to draft regulations that will not have adverse effects on competition. This has emphasised to me the importance of managing the tensions between intellectual property policy and competition policy.

Microsoft is the key player in the Trusted Computing Group (TCG), an industry alliance that seeks to embed TC hardware mechanisms in the next generation of PCs that will support stronger Digital Rights Management (DRM) technology. These TC hardware mechanisms will enjoy preferential legal protection in the European Union under the EUCD, in that their circumvention will normally be an offence. Insofar as these mechanisms are used to protect the owners of films, music and other such creative works from piracy, this accords with EU policy.

However, the TC mechanisms as specified will have a much wider effect. Microsoft is promoting the use of DRM mechanisms as a means of enforcing organisational policies on information management. This

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is designed quite explicitly in order to increase levels of customer lock-in and to leverage for this purpose the legal privilege granted by the EUCD. I enclose a paper I have written on the subject entitled "Cryptography and Competition Policy – Issues with 'Trusted Computing' "; this paper will be presented at the Second International Workshop on Economics and Information Security, May 29-30, at the University of Maryland.

Microsoft insiders are very aware of the Shapiro-Varian result, that the net present value of their software business is equal to the total switching costs of their customer base. To a first approximation, the value of a marginal user of Office is the cost which that user would incur in switching from Windows and Office to GNU/Linux and OpenOffice. At present, this involves internal costs of staff training and converting existing files, as well as externalities of compatibility with other Office users. At present, competing products such as OpenOffice can generally read Office files. However, on a TC platform it will be possible for Microsoft to lock users out of competing products, and any utilities written by third parties (such as the OpenOffice developers) to convert protected Office files will apparently count as circumvention.

The proposed EU draft directive on the 'Enforcement of Intellectual Property Rights', COM (2003) 46(01), would compel all EU Member States to criminalise any such circumvention for commercial gain. You are no doubt aware of the Lexmark case, in which the US printer vendor Lexmark is suing sellers of refilled printer cartridges under the US Digital Millennium Copyright Act with some success, while the European parliament proposes to compel printer vendors to make their cartridges refillable as an environmental measure. Recall also the Honda case, in which Honda prevented parallel imports of motorcycles into the UK by using their intellectual property rights. The combination of unregulated TC mechanisms and the Enforcement Directive will create many similar conflicts.

It will be in Microsoft's interest to use TC mechanisms to increase customer lock-in and thus the value of their software business. I understand from Microsoft insiders that the TC initiative is seen in these terms inside the company (and can provide evidence on this on a confidential basis). The Enforcement Directive, if enacted in its current form, will give them an extraordinarily powerful weapon to lock out competitors, by criminalising many possible ways of competing with their products.

In the settlement that Microsoft achieved with the US Department of Justice following the 2001 change in US administration, there is a very broad exemption for security. APIs and other compatibility information need not be shared if Microsoft deems them to be security-sensitive. It is hardly surprising that Microsoft has over the past year reclassified much of its product funationality in precisely this way.

It is extremely important that the European Union should not follow this mistake of the US Department of Justice. Security arguments must not be abused to provide a way of circumventing competition policy.

I also urge you to ensure that your decision leaves policymakers, both in the European Commission and at the level of Member States, with enough flexibility to pursue their legitimate competition policy goals. In practice that is likely to mean a continuing mechanism for monitoring Microsoft's use of TC mechanisms to ensure that they are not extended from preventing unlawful piracy of films and music to preventing lawful competition in the marketplace or into undermining the Single Market.

I understand that the Directorate-General for Competition has already managed to tone down the proposed Enforcement Directive. I applaud this and sincerely hope that it can be toned down much further.

I would very much wlecome the opportunity to meet you to discuss these issues, and I shall contact your offices in two weeks to see if a meeting can be arranged.

Yours sincerely,

Ross Anderson