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"Free software and the law. Out of the frying pan and into the fire: how shaking up intellectual property suits competition just fine"

Abstract

Free software is viewed as a revolutionary and subversive practice, and in particular has dealt a strong blow to the traditional conception of intellectual property law (although in its current form could be considered a 'hack' of IP rights). However, other (capitalist) areas of law have been swift to embrace free software, or at least incorporate it into its own tenets. One area in particular is that of competition (antitrust) law, which itself has long been in theoretical conflict with intellectual property, due to the restriction on competition inherent in the grant of 'monopoly' rights by copyrights, patents and trademarks.

This contribution will examine how competition law has approached free software by examining instances in which courts have had to deal with such initiatives, for instance in the Oracle Sun Systems merger, and the implications that these decisions have on free software initiatives. The presence or absence of corporate involvement in initiatives will be an important factor in this investigation, with it being posited that true instances of 'commons-based peer production' can still subvert the capitalist system, including perplexing its laws beyond intellectual property.

Introduction

Free software is software which encompasses the freedom of the user to share, copy and modify the software, unlike 'proprietary' or 'closed source' software, which is licensed according to the exclusive right of the copyright holder usually in a much more restrictive fashion than with free software (such as imposing a charge on the licensee to use the software, withholding the source code, and prohibiting users from redistributing the software to others) and often the software is not interoperable and thus incompatible with other software. Usually a user does not have to pay to access free software, whereas proprietary software will encompass a charge for the user - although this is not necessarily the case since what makes proprietary software proprietary is more the control that the copyright holder has over how the software is distributed, whereas with free software anyone with a copy can decide whether and how much to charge for a copy and related services – but then someone else with the same copy might decide to redistribute the same thing for free.

Free software may sometimes constitute what Benkler terms 'commons based peer production',[1] that is, initiatives produced by decentralised individual users which constitute a nonhierarchical, non-market nonproprietary alternative to information production by corporate or State entities.

[1] Y. Benkler *The Wealth of Networks: How Social Production Transforms Markets and Freedom* Yale University Press 2006

However, true example of commons-based peer production are few and far between: there is corporate involvement in many free software projects, usually from the software industry. There are various motivations for corporations to participate in free software projects, for example to benefit from the quick feedback and marketing provided freely by the user community built up around the project, and even if special licences are used to ensure the software can be used for free and freely, corporations may still be able to assert a copyright over the specific parts of the code their employees have produced which they may be able to re-licence under other, 'traditional' licences (and so gain a profit).[2] While 'true' commons-based peer production might prove something of a headache for legal regimes such as competition law, as will be discussed in more detail below, initiatives which involve corporations while seeming at first blush unorthodox are more easily subsumed into the understanding of other regimes such as competition law.

Intellectual property law is used to manage the creation and use of both free and proprietary software, albeit in radically different ways. Traditionally, copyright has worked by granting the creator of a work (which can include software) exclusive rights over it, which as mentioned above would govern how the work is shared, copied and modified – usually this cannot be done without the permission of the entity which owns the copyright (which is not necessarily the original creator, since these rights can be transferred to others). This is normally the kind of copyright terms that are asserted by the owners of proprietary software. However, when it comes to free software, copyright law is still used inasmuch as the legal device of attributing certain rights to the owner applies, but the owners and creators of free software use their rights to allow the future distribution of copies and modified versions of the software ('libre') while requiring that these same rights are preserved in any future modified versions (so that someone who modifies the software and then wants to distribute it can only do so if she offers that modified version in a way which can be modified itself). This is known as 'copyleft'. Often the work will be distributed free of charge (gratis) as well, with the proviso that subsequent copies and modified versions must also be distributed free of charge.

Certainly this use of intellectual property law is unorthodox, given the justifications for this legal regime revolving around the idea of incentivising creation by providing a way for creators to gain financial reward for their efforts, i.e. usually by charging others to use their work and guaranteeing this revenue stream by ensuring others cannot modify the work or redistribute it to others. By using exclusive rights to allow at least modification and redistribution then free software and copyleft constitute a subversion or 'hack' of intellectual property law, using the system to do something for which it was not intended.

The justification for intellectual property law as a way of incentivising creation is in any event subject to criticism, since in practice there is little or no evidence that the granting of intellectual property rights actually has this effect of encouraging more creation and innovation in society.[3] Furthermore, the very fact that people are prepared to and do in practice create and then give their work away either for no charge or with the ability to change it and pass it on would seem to challenge some of the principles of neoclassical economics, upon which contemporary intellectual property law as well as competition law have been predominantly based, implicitly accepting many neoclassical assumptions about human behaviour and organisation.

Despite intellectual property and competition law having a similar neoclassical basis, they also share a tension between them inasmuch as intellectual property rights may restrict the ability of entities to compete with each other – intellectual property rights can be conceptualised as

[2] G. Robles, S. Duenas and J. M. Gonzalez-Barahoma, 'Corporate Involvement of Libre Software: Study of Presencein Debian Code over Time'. In J. Feller, B. Fitzgerald, W. Scacchi and A. Sillitti (eds.) *Open Source Development, Adoption and Innovation* (New York, 2007)

[3] David Levine and Boldrin Against Intellectual Monopoly

mini-monopolies over a particular idea, creation or technology, and competition law views monopolies with suspicion, although the mere possession of a monopoly in either the US or the European Union is insufficient to constitute a breach of competition law.[4] An 'abuse' of that monopoly position though would be sanctioned in these jurisdictions although what constitutes an abuse sometimes converges and sometimes diverges. Nevertheless, sometimes the owners of copyrights can be held to have misused their exclusive rights in a way which constitutes abusive conduct, which happened in the *Magill* case in Europe when the Court of Justice of the European Union (CJEU) found that the copyright owner had used its copyright to prevent new products coming to market and that this was an abuse of a dominant position,[5] showing that at least in Europe there are limits to intellectual property when it is confronted with competition.

Both intellectual property and competition law share similarities in being inherently capitalist legal regimes but it could be argued that some of the tension between them comes from the different conceptions of capitalism on which they are based, or at least from different capitalist conceptions of competition (or which capitalist is the winner). Competition law is wary of monopoly since monopoly entails the lack of a competitive market, while intellectual property law celebrates something like a (minimal) monopoly in the form of the exclusive rights granted to rightsholders. Competition law might be said to encompass a more 'liberal' capitalism which tries to avoid the concentration of markets in one enormous player and promotes competitive markets as a means of maximising consumer welfare and/or efficiency (the standard justification for competition law). Intellectual property could be seen as a more 'libertarian' capitalist regime which privileges the property right of the creator above anything else, in the same way standard contemporary libertarian discourse demands no state/legal interference with individuals' behaviour except the upholding of property rights.

Free software's conceptual problems for competition law

The neoclassical basis of competition law might also find the 'hack' of intellectual property law used to license free software, as well as the collaborate efforts often used to make it, difficult to conceptualise in accordance with its assumptions about the nature of human behaviour and organisation.

Competition law presumes a distinction between the producers of the product or service and the end consumers, who are the 'real individuals' that finally use the product or service. The generally accepted aim of contemporary competition law is to 'maximise' the 'welfare' of these consumers (although what this means in practice and how this might be measured or identified is hotly debated), and it could be said that competition law takes something of a paternalistic attitude towards these consumers in that it does not see an active, creative role for them in the market dynamics beyond demand and consumption, so the market must be regulated to be competitive in a way which enhances consumer welfare. Consumers can be characterised as passive and without the capacity for production (although the same individual which is a consumer may well have a productive role due to her employment, although if a worker she will not own the products of her labour). However, it can be seen that in the context of the Internet, firstly consumers are in practice not passive – they are active participants in e.g. free software initiatives as well as generating content for a myriad of online platforms. 'Mere' consumers and users/producers may well have overlapping but also different needs and desires, and so the concept of 'consumer welfare' that is used in competition analysis may not capture this. Furthermore, users joining together in free

[4] For more detail on the tension between intellectual property law and competition law, see Katarzyna Czapracka *Intellectual Property and the Limits of Antitrust: A Comparative Study of US and EU Approaches* 2009 Edward Elgar

[5] *Radio Telefis Eireann and Others v Commission* (C 241 & 242/91 P), 6 April 1995, [1995] ECR I-743, [1995] 4 CMLR 718, [1995] 1 CEC 400 (ECJ) ("*Magill*")

software initiatives which do not form either private, profit- corporations on the one hand (which fall squarely within the ambit of competition law) nor are 'public' (state-backed) yet instead forming a commons do not easily fit into the public-private divide which characterises the application of competition law.[6] Although in Europe an 'undertaking' albeit not defined in any treaty has come to mean any entity engaging in economic activity,[7] that merely begs the question of what an economic activity is and whether free software initiatives, especially those which constitute the 'non-market' commons-based peer production can actually be said to be contained within this definition or whether they fall outwith the limits of competition law.[8]

Secondly, the possibility that free software offers to the creator not to recoup costs by charging for its use i.e. free as in gratis as well as free as in libre is somewhat perplexing for competition law, which is based on prices being charged for goods and services (and the competition analysis proceedings on the basis of what these prices are). This is especially important for the calculation of market share and market power, whose analysis looks to the revenue of the entities gained through sales. Although competition law is not entirely unfamiliar with products and services that are free as in gratis, which are prevalent in the Internet context (such as search), often the markets will be two- or multi-sided and there will be another party, for instance advertisers, which will subsidise the users' free use of the product or service.[9] However, as regards free products and services being provided by companies (as opposed to by a completely non-commercial initiative), the company will usually be making a profit elsewhere, and so a competition analysis should be aware of this and proceed to examine whether there is a paid companion product – if so, this can provide the focus for a competition investigation and a more traditional quantitative analysis can be conducted with awareness of potential non-price affects on the free product (such as a degradation in quality). However, a 'companion' product or service may not be found for many free software initiative. Nevertheless, even if a price is not charged for a product or service, competition law can also proceed by looking at whether the 'quality' of the product or service has been affected or whether there has been an affect on output or innovation in order to determine whether an entity is dominant[10] – this kind of analysis may well solve the competition law's potential problem with free software which is gratis. Furthermore, actual usage of the free software through downloads for example may go some way to providing information about its market share.

Thirdly, competition law may be suspicious about the presence of commercial for-profit operators within free software projects, and view their conduct as constituting a cartel especially if entities which are otherwise competitors collaborate with each other and possibly others in the context of a free software project. Cartels in competition law are viewed as illegal in competition law, and were actually *per se* illegal in the US for many years regardless of their consequences (e.g. if they actually had pro-competitive effects, or boosted innovation) but the law around cartels both in Europe and the US is more complex, in both jurisdictions cartels may not be pursued if they can exhibit for instance more positive than negative effects. Although as yet there has not been a

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6 Although it is too simplistic to say that public entities fall outwith the scope of competition law: in Europe they can be caught by the state aid rules, and in many sectors, especially network industries, which were formerly state-controlled, liberalisation has opened up these industries to competitive market and the application of competition law, usually alongside sector-specific regulation.

7 Jones, Alison, The Boundaries of an Undertaking in EU Competition Law (2012). European Competition Journal, 8(2), pp. 301-331, at p.302

8 For more on what these limits are, see Tony Prosser, *The Limits of Competition Law: Markets and Public Services* Oxford University Press 2005

9 For more on the economics of free, see Evans, David S. *The Antitrust Economics of Free* University of Chicago working paper. Evans notes that the motivations for a company to offer a product or service for free because in doing so its overall profits are increased by selling a companion product with the free product, and the companion can be a complement, a premium version of the free product or the product on the other side of a two-sided market.

10 See for instance the European Commission's Communication on *Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings* Official Journal C 045 , 24/02/2009 P. 0007 - 0020

specific cartel case involving free software, there has been some speculation as to how courts and competition authorities might deal with such a case before them. Maure posits that in general most free software initiatives including those with corporate participants which might otherwise be competitors can satisfy courts and competition authorities that the pro-competitive effects of their project (such as the avoidance of a duplication of efforts and the sharing of findings) outweigh the anti-competitive effects, but that this would be a determination that should be made on a case by case basis depending on the circumstances of the particular free software initiative.[11]

Competition law and free software in practice

Nevertheless, this discussion does not have to be merely theoretical since in practice courts and competition authorities have actually encountered free software initiatives in the context of competition law and taken action based on how they viewed free software to fit in (or not) with competition law. Both the *Wallace v IBM* decision in the US,[12] and the Oracle Sun Systems merger which was considered by both US and EU competition authorities provide some idea of how competition law encounters free software.

Wallace v IBM

The *Wallace* case was brought against various entities which profited from the distribution of free software, specifically the GNU/Linux operating system, with the allegation that these entities were engaging in 'anticompetitive price fixing' since the operating system was distributed for free. The case went to the 7th Circuit Court of Appeal, in which Justice Easterbrook decided that this was not a case of 'predatory pricing' because there could be no 'recoupment' by the entities involved (i.e. raising the prices after 'winning' against other competitors, thus harming consumers), since the GNU licence used stipulated that the software must always be distributed for free, nor did the agreement restrain trade since it facilitated the creation of derivative works and thus new products which would not otherwise be created. The fact the price was set to zero was not price fixing since intellectual property law permitted but did not oblige the rightsholder to charge for the use of their work, and antitrust law did not require higher prices to be charged, and any attempt to charge would be prejudicial to efficiency and consumer welfare. Furthermore, it was not contended that Linux had a large market share or posed a threat to consumer welfare long-term.

However, regardless of how remote a possibility in practice, if Linux had had a dominant position in the market for operating system, then perhaps the Court's reasoning would be different, or perhaps not, given the fact that despite its dominant position, permanently free software is in the interests of consumers (and perhaps even more in the interests of users). Furthermore, since only actual abuses of a dominant position can be sanctioned by competition law, then it could be argued that free software projects are incapable of being abusive and acting anticompetitively due to their principles of openness and freedom. In any event, the court in *Wallace* seems to have taken a consequentialist approach to free software and competition: if the objective of competition is to maximise consumer welfare, rather than bother with the process of competition itself, then even the accumulation of market power in one entity (which was not the case in any event with Linux and the market for operating systems) which is a free software project does not pose problems since its existence and operation is also a benefit for consumers (let alone users!). Nevertheless, certain anticompetitive behaviour is 'per se' illegal regardless of its consequences, and so this consequentialist approach may only be applicable in the situations in which the court has discretion to find certain conduct concerning free software infringing or not, rather than when it is compelling

[11] Maurer, Stephen M., The Penguin and the Cartel: Rethinking Antitrust and Innovation Policy for the Age of Commercial Open Source (August 2010). Goldman School of Public Policy Working Paper No. GSPP10-006.

[12] Wallace v. International Business Machines Corp. et al., 467 F.3d 1104 (7th Cir. 2006)

to a finding of infringement.

Oracle Sun Microsystems

So while free software may not overly trouble abuses of dominant positions (where there seems to be more room for courts' manoeuvre), its position in relation to merger analysis may be more tricky. This very issue was considered in the Oracle Sun Microsystems case. The merger took place in 2010 between Oracle, a software vendor and Sun Microsystems, which produced software and hardware. The deal was immediately approved by the US Department of Justice with no restrictions, but the European Commission investigated the proposal more thoroughly, focussing in particular on MySQL, a relational database management system owned by Sun.[13] Although MySQL itself was owned and sponsored by a single for-profit firm, its source code was made available under the terms of the GNU General Public License (i.e. on a free software basis), but its major revenue sources were selling additional functionality, licences to embed the database and technical support. This was at issue since at the time of the merger, Oracle was the world's leading proprietary database vendor, and the market for databases was highly concentrated with three main proprietary vendors accounting for approximately 85% of the market in terms of revenue. MySQL was the leading open source database (although not a significant player in the overall market for databases, both proprietary and free/open source, since its market share based on revenue was very low to negligible). The Commission defined the relevant market as that for all databases, yet had to follow market shares based on revenue since there was no data as to the actual number of full installations of downloaded free software databases, but concluded that 'MySQL's competitive significance is much greater than its very small market share based on revenue would suggest',[14] and noted 'a tendency towards an increased use of open source products in a business environment'.[15] There was a concern that Oracle's database and MySQL would stop competing with each other post-merger since they would be offered by the same vendor, as well as concerns that Oracle might stop offering MySQL under a free software licence, that it might degrade or stop developing the open source version of MySQL or that it might prevent constraint from third party storage engines by modifying the interface or refusing to grant commercial licences to storage engine vendors to allow them to market proprietary versions of Oracle's storage engines working with MySQL. However, the Commission found that Oracle's ability and incentives to remove MySQL as a competitive force in the database market post-merger would be constrained precisely due to the free software nature of MySQL, and Oracle itself offered pledges to MySQL's users which included a promise to continue to enhance MySQL in the future under the GNU licence as well as increase spending for MySQL's continuing research and development for at least five years post-transaction. Although these pledges were not legally binding, the Commission considered that the oversight and scrutiny of the open source community surrounding MySQL would be sufficient in order that these pledges were kept. For this among other reasons, the Commission approved the merger.

On the issue of competition and free software considered by the Commission, Moglen, who made a written submission to the Commission, held that there was no harm to competition as a result of the merger as long as MySQL was still under the GNU licence, and Oracle was still expected to accept third party patches.[16] In this way the software remains free in the gratis sense of not costing users any money, and also the libre sense of allowing them to contribute to the improving of the software. However, Etro considered that the merger did harm competition, since the presence of MySQL as the best free software alternative to proprietary databases had forced Oracle to invest heavily in research and development to innovate and maintain its lead, as well as the free distribution of

[13] Case No COMP/M.5529 – Oracle/Sun Microsystems 21 January 2010

[14] Ibid at p. 33

[15] Ibid at p. 36

[16] *The European Commission and Oracle-Sun*, published on 14 December 2009 on Moglen's blog “Freedom Now”. Available at: http://emoglen.law.columbia.edu/now/cases/oracle-sun/ec-hearing-and-after.html

MySQL creating a binding price constraint on Oracle[17]. Since the European Commission did not manage to calculate market share based on downloads/usage of MySQL, and instead based its calculation on revenue, its 'traditional' competition analysis did not engage with this point around MySQL as a binding price constraint, and so arguably failed in providing an accurate picture of the situation for consumers and users.

Furthermore, the free software community itself cannot be thought to be an adequate constraint on Oracle's behaviour post-merger – Oracle's commitments to it are not legally binding and in fact the greatest sanction that the free software community can place on Oracle would be to abandon the MySQL project, which again may actually be in Oracle's interests if the abandonment of MySQL and it being disfavoured by consumers actually encourages consumers to use Oracle's proprietary database instead, since this will bring more revenue for Oracle, which seemingly would be a lot more compared to the revenue brought in by MySQL's associated for-profit services.

Analysis

As can be seen from these two examples discussed above, the court and the European Commission were not fazed by free software initiatives and did not engage in a theoretical discussion around the possible incompatibility of the process of competition with the goal of consumer welfare, and the role of free software in potentially interfering with the former while promoting some expansive version of the latter. Furthermore, the consequentialist approach taken in *Wallace* may fall foul of competition law violations which are *per se* illegal, yet this was not discussed in the case itself. A lack of understanding can also be seen by the European Commission in the Oracle Sun Microsystems merger when it did not accurately calculate market share using downloads/usage and instead by using revenue, which evidently would be a lot lower for the GNU-licensed MySQL, as well as the Commission thinking that the presence of the free software community would be sufficient to carry on the project and ensure the merged entity continued to promote the free software initiative. Indeed, the European Commission here demonstrated a worryingly permissive attitude for free software initiatives to be taken over and potentially 'gobbled up' by their proprietary competitors, not really taking into account the fact that the community around the free software initiative may not be strong enough to counter this and ensure the merged entity continues to promote the project, with the eventual loss being that consumers/users no longer have access to a free (gratis/libre) resource.

It seems that the *Wallace* court and the European Commission found free software implicitly compatible with competition law, or at least the aim of competition law in promoting consumer welfare, although a deontological approach to the promotion of the process of competition would not be included in their reasoning. Both institutions though continued to use a market-based analysis, discussing consumer welfare when consumers have morphed to be users (although the Commission implicitly recognised this to some extent when Oracle committed to continue to offer MySQL with a GNU licence, so that users could continue to contribute to the project) and when capitalist markets themselves may in fact be challenged by certain types of free software initiatives, namely those with no corporate involvement in the form of commons-based peer production. In the examples above, despite there being active 'peer' communities around both Linux and MySQL, both have complementary commercial products and so cannot really be said to exist outside of the market, since competition law can also look at activity on associated markets. For competition law, a legal regime based on regulating capitalist markets according to a certain view of capitalism, true common-based peer production may still prove to be perplexing to its tenets and thus a potentially

[17] *When a merger softens competition: the Oracle-Sun case*, published on 11 November 2009. Available at: http://www.voxeu.org/index.php?q=node/4187

subverting influence.

In the absence of reform to legal regimes such as competition law, a different approach may be necessary when it is called upon to analyse free software initiatives, especially those constituting commons-based peer production. Indeed, Elkin-Koren and Salzberger advocate that as a result of initiatives such as commons-based peer production and free software, markets on the Internet should be evaluated 'not only like any other market by the criteria of efficiency, but also as a public sphere, commons or mechanism for private and collective actions'.[18] Some notion then of the issues beyond the purely economic at play in instances of corporate dominance, concentration or the proposal of mergers may need to be taken into account in order to regulate Internet markets and activities well and for the benefit of consumers' welfare and users' autonomy. Furthermore, Benkler advocates the Internet being regulated in a way which enables a wide distribution of the capacity to produce and disseminate information.[19]

Nevertheless, competition law is not so well-equipped to take into account more qualitative factors such as for instance ensuring the capacity to produce and disseminate information, as a regime which operates using mainly quantitative, price/revenue-based data data. Measuring the extent to which for instance such a capacity is promoted or harmed would seem to be a more qualitative than quantitative exercise, and generally one that will not be measured in financial terms. For non-economic objectives it may be more expedient to use law and policy aside from competition law to achieve them, since using competition law to do so can be costly and ineffective.[20] Competition law has a particular ideology and aims, which may well not be sufficiently conceptually supple to bend to these situations, but this may in itself show the absurdity of the inflexible operation of a regime which is based on neoclassical economic assumptions when these assumptions have already been disproved yet still underpin parts of the legal system.

Conclusion

[18] Elkin-Koren and Salzberger (n41) p27
[19] Benkler (2006) at p. 157
[20] Townley, C *Article 81 EC and Public Policy* 2009

There has been a general critique of competition law in Europe by Buch-Hansen and Wigger, who from a critical political economy perspective have argued that EU competition regulation has undergone a 'neoliberal transformation' which has been primarily in the interests of transnational globalised capital rather than in the interests of other social groups, challenging the established view that it is consumers who are the main beneficiaries of competition.[21] Consumers are supposed to be the beneficiaries of competition due to competition causing lower prices, as well as fostering innovation to improve the quality of products and services. However, consumers are in fact multi-dimensional human beings, who may be workers suffering from degradation of working conditions and rights, or even the unemployed (seemingly increasing in number in many European countries at the time of writing), and must have a certain amount of financial resources before they participate in the market as consumers.

Neoliberalism as a capitalist political movement has promoted economic liberalisation, free trade, open markets and the privatisation of previously nationalised industries and public services and deregulation/regulation in the most unobtrusive way possible. However, the relationship between competition and capital is complex, including the neoliberal take on capital. Marx himself considered competition to be the 'inner nature' of capital, and it was realised as the interaction of many capitals with each other.[22] Competition law can thus be seen as the 'rules' to govern the situation of different capitals interacting with each other.

However, from a capitalist perspective, it is contested whether these rules of competition should exist, inasmuch as either they are unnecessary regulation of the private sector (the libertarian view) or essential for the proper functioning of markets (the liberal view). This paradox has been recognised by Meiksins Wood, who notes that to achieve dominance, competition must be reduced but conditions must also be maintained which permit the existence of markets and profit.[23] Neoliberalism seems to sit on the side of still believing some competition law is needed, especially in situations such as breaking national monopolies and opening these liberalised markets up to foreign competition.

In a neoliberal discourse, competition law may be seen as one of the only acceptable checks on private power (or the remnants of public power when it comes to formerly State-owned companies).

[21] H. Buch-Hansen & A. Wigger *The Politics of European Competition Regulation A critical political economy perspective* Routledge 2011 (Abingdon and New York). In the US, an empirical study suggested that antitrust policy did not actually improve consumer welfare in practice: Crandall, Robert W. and Winston, Clifford *Does Antitrust Policy Improve Consumer Welfare? Assessing the Evidence* Journal of Economics Perspectives 17(4) 3.

[22] Grundrisse at p.414

[23] Meiksins Wood *Empire of Capital* at p.157