

Running Head: ADVERTISING'S ELUSIVE ECONOMIC RATIONALE

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Advertising's Elusive Economic Rationale: is there a case for limiting tax relief?

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ABSTRACT

Advertising and its effects have been debated for well over a century. In the last few decades a generally sceptical view of the benefits of advertising has been overturned by a series of academic advances in economics that detail a variety of ways in which advertising may affect the economy and society. This academic work has however been paralleled by a growing popular and political opposition to advertising and its social effects. In this article, the positive economic case for advertising is challenged by an assessment of the main channels of its influence and by a review of the associated empirical findings on its economic and wider impact. A policy response of limiting the tax deductibility of business advertising is explored.

INTRODUCTION

Advertising comprises a major part of the economy. In the United States it accounts for over two percent of GDP, more than the percentage allocated to tertiary education. If consumer viewing time were valued at a minimal US\$5 an hour, the total cost of learning to shop - in terms of producing and consuming ads - would match the total education spend of the US. International comparisons are made difficult by the lack of a consistent definition of advertising similar to the Frascati manual for Research and Development (R&D). Nevertheless it appears that other developed countries are not far behind the US in advertising intensity with recent estimates around 1.5% of GDP for Germany and the UK (Molinari and Turino 2009). Advertising to GDP ratios have been argued to be constant over time with cointegration observed between the two series (Jung and Seldom 1995). Although some industries scarcely advertise at all, for many others it accounts for a high proportion of retained profit; the ratio of advertising to sales may exceed that for R&D. That is so, both for relatively low-spending R&D industries such as consumer products (7% for ads compared with 2% for R&D), and for some high-spending R&D industries such as pharmaceuticals (24% compared with 13%). Some advertising is public but the amount is negligible e.g. 95% of US food information is private (Gallo 1999). For large listed companies, the accumulated advertising spend in terms of brand value accounts for about a quarter of their stock-market valuation.²

A perennial question in the history of advertising is whether it is excessive from a social point of view. Put differently, are the economic benefits sufficient to outweigh the opportunity cost as well as the costs that advertisers oblige others, including consumers, to bear? Advocates for advertising

² For various data sources on advertising, see Bittlingmayer (2008) for historical US data; Advertising Age Data Center for current US statistics; and for other countries, Nielson Media Research. See also: Gagnon & Lexchin (2008) for pharmaceuticals; Vitorino (2010) for brand values; and for US television viewing statistics, Statisticbrain (2014). Official US figures are recorded in the *Statistical abstract of the United States* (various issues) published by US Bureau of Census, Washington, DC.

claim a variety of economic benefits: it boosts competition, thus improving quality and pricing; by raising innovation it results in higher quality output, and it accelerates the growth of new businesses. (Deloitte 2013). It is possible that all these claims are true at some basic level of advertising. It may even be true that the rise of capitalism owes less to standard factors of production than to the “sweet talk” that makes it all happen (McCloskey 2010). The issue is not whether advertising should be eliminated but whether current levels are grossly excessive. In this article we explore that question and also review the macroeconomic evidence that advertising promotes measured economic growth. We begin, however, with an account of how advertising affects the consumer and the regulation of that relationship.

Advertising works through altering buyers' behaviour and it evokes mixed responses from consumers (Shavitt et al 1998). Not surprisingly, relatively few respondents wish to see all the ads they are exposed to, so it is difficult to analyse advertising in the same way as other market goods and services. Although most respondents say that they enjoy ads, there is a very large majority for the statement that “ads are way too annoying” (Mehta 2000). Political theorists such as Sandel (2012) argue that public space is being eroded without public assent, as for example where ambient advertising is extended to the branding police cars, school teaching materials and parks.

In the UK, the advertising industry's own think-tank shows that public support for advertising is not only low but that it has fallen from 50% in the mid-1990s to only 30% in 2009. The same data show that the current level of trust in the advertising industry at 20% is only slightly above that of the alcohol industry and falls below even that for the government (25%) and banks (29%) despite the persistent financial crisis that prevailed at the survey date (Credos 2011). Such concerns have not only been expressed for general advertising but also in respect of internet ads (Schlosser et al 1999) and mobile phone ads (Tsang et al 2004). The view forecast in Gates et al (1996) that information technology would result in ads becoming simultaneously more targeted and less objectionable has

not been borne out, as greater information gathering has led to extensive data mining and proliferation of unwanted ads.

Policy makers and regulators are to some degree responsive to such public concern. For example, city authorities in Sao Paulo Brazil and Los Angeles have eliminated or reduced billboard advertising, as was already the case for some smaller US states. In the UK, the Office of Fair Trading has investigated consumers' views on the advertising of pricing (OFT 2010). In the European Union (EU), tobacco advertising on TV has been banned since the 1990s. However, the general tendency is for public policy to be focused on a small number of defined issues, such as the advertising of vice goods, or promotions aimed at minors. On the big question of the role of advertising in society and the economy, there seems little appetite for developing any general framework and the advertising industry presses for this to remain so (Credos 2011). Indeed, advertising tends to be treated in public policy discussion as an investment equally desirable to other intangible one such as organisational capacity, training or innovation (Marrano et al 2007). In the US, however, there has been some attempt to restrict general advertising, with the pressure for this originating in political representation. One example is the 2013 proposal to exclude advertising as a tax-deductible business expense. Another is the "Calm Act" of 2010 that forced broadcasters to limit the sound volume of ads to the average of the programme in which they appeared.³

One possible reason why regulators tend to shy away from a broad perspective on advertising may be the proliferation of complex economic theories that inhibit forming a general overview due to the resultant uncertainty. If economic gains cannot be quantified, it is hard to prove that they are outweighed by social costs. To be sure, there is a long tradition within even mainstream economics of a sceptical or adverse attitude to advertising that is not all that different to that of the public. By

³ A joint bi-partisan and bi-cameral proposal in the US initiated in 2013 calls for businesses to be allowed to deduct only 50% of costs in the year the advertising runs and then amortize the deduction of the remaining 50% over a period of five or 10 years (Advertising Age 2014). The Calm Act reversed previous deregulation measures and according to its sponsor was the most popular legislation she introduced in her 18 years in Congress; for details see Federal Communications Commission (2014).

the 1970s such adverse views had become commonplace, reinforced by key texts such as Galbraith (1958). Yet, a set of counter-arguments has managed to neutralise these sceptical views; so many channels of advertising influence have now been identified that no general approach seems possible (Bagwell 2005). Judgement is also clouded by doubts over the applicability of economic rationality to predicting responses to advertising (Tirole 1988, 289). Nor can the approach of stylised facts be relied on to produce consensus; much of the empirical literature shows marked inconsistencies that illustrate the difficulty of econometric testing where few variables can be considered predetermined (Bagwell 2005).

The aim of this article is to interrogate the various theories so as to form a conditional cost-benefit view of advertising. It will be argued that the benefits are much less certain than commonly assumed so that even a small amount of social harm may imply an excess. This conclusion is reached on a balance of evidence view. It is not necessary or even usual for public policy to be informed by a single unified theory. Deep controversies exist for most standard industrial interventions such as environmental protection, promoting competition or subsidising R&D. It is reasonable, therefore, to ask whether a robust policy conclusion can be extracted from the plurality of existing theories on advertising and we return to that after establishing the analytical case.

ECONOMIC VIEWS

Advertising changes the willingness of consumers to purchase for a number of possible reasons. Advertising may convey information – at the basic level, the existence of a good or its price but more generally about the nature of the product or service. In addition or alternatively, advertising may involve a manipulation of desire if preferences are not stable and given. Some of this image creation that is welcomed by the consumer in the form of identity badging and social prestige. Advertising may also reassure, as when a costly advertisement signals product quality even if it contains no specific information. In addition to these effects on the individual consumer, advertising may involve

interaction between firms that leads to systematic effects on the economy and society. In this section we assess these matters.

Information and Persuasion

The categorisation above does not draw a firm line between informative and persuasive advertising. All advertising is persuasion but it is conventional to use the term informative when advertising leads to increased demand to buy at the existing or lower price (which will expand the market). Often this point is illustrated with cases where advertising has formerly been banned and, when legalised, results in a fall in price and more consumption. The example of spectacles and optometry is one test case where price fell under advertising - though the issue of whether advertising increased or reduced the quality-adjusted price is in dispute. In cases where health claims are classified as legal due to scientific advances, there is evidence that this has increased sales in areas such as cholesterol reduction or high fibre diets. Such arguments suggest that some threshold level of advertising is beneficial, if it is accurate.

The term persuasive advertising is used to indicate an induced demand change corresponding to a likely higher price as a result of greater product differentiation. Formally, Informative advertising does not make demand less price elastic while persuasive advertising does. A traditional view in the long literature on advertising is that persuasive advertising is worse than informative advertising. This is because advertised information tends to expand demand, which is not only good for the firm but also benefits the additional consumers, as their willingness to pay exceeds the market price (for all but the marginal consumer). If firms cannot extract this benefit or "consumer surplus" they will under-advertise in informative advertising *i.e.* expand the market less than a social planner would and on this reasoning more informative advertising would improve welfare.

One response to the above view has been to judge the acceptability of advertising in terms of the relative weight of information and persuasion. At first sight that seems a simple task, achieved by inspecting the nature or location of the ads. For example, TV ads are generally classed as persuasive;

they convey a message that branded products are worth paying a premium for. In the US, TV ads dominate the others in terms of expenditure share, suggesting that the category of informative advertising accounts for only a small part of the total (Belleflamme and Peitz 2010 p.136). In the UK expenditure monitored by the Advertising Association suggests that the ad spend on print media equals that for TV, but of that print spend, only a small proportion is accounted for by classified advertisements that are clearly informative. Information content can also be audited. Marketing studies indicate that there are relatively few direct cues in most ads to attract specifically new customers. Even for magazine advertisements, price information is given for only one in five cases (Anderson and Renault 2006). More generally price information, even where it exists, is regarded as misleading by over half of consumers (OFT 2010, 11). Other studies show some - but not majority - support for the view that advertising makes them aware of buying opportunities, while a large majority reports that advertising is "more manipulative than informative" (Mehta 2000).

Not everyone is convinced by these arguments that consign informative advertising to a minor role. It is argued that TV ads - even those that have little specific content - can nevertheless serve also to inform by persuading people to try out new products. Indeed, since non-verifiable advertising claims are not credible, subtle indirect cues may offer as much or little guidance as concrete ones (Kay 1995). The appropriate classification of an ad can, on this view, only be tested by investigating whether they influence *new* customers more than existing customers who have already sampled the product, thus indicating information rather than persuasion. An iconic article, required reading for industrial economics students, demonstrates this for a particular brand of yoghurt advertised on US TV in the 1980s (Ackerberg 2001). Yet the interpretation of the result seems open. There appears to be a sample selection effect in that the brand (Yoplait 150) is untypical in containing specific information on the product (calorie count of 150) thus making it more likely to find that it may

trigger new purchases.⁴ Exactly the same point applies to some other studies of how advertising affects the demand curve. In the US, Direct-to- Consumer (DTC) ads for anti-depressants appear to expand the market by increasing the pressure of new patients seeking prescriptions from doctors, rather than persuading existing patients to purchase their full prescription quantities (Meyerhoefer and Zuvekas 2008). This may indicate that pharmaceutical advertising expands the market – and to that extent is informative - but, as with the specific information in Yoplait, here again we have a codified product with a known product specification and is, therefore, a-priori more likely to be informative. Highlighting such cases does not help to counter the weight of evidence that most advertising is not informative.

Informative but combative advertising

As shown above, when we abstract from competition effects, a positive view of informative advertising can be supported, as welfare is directly improved. Under competition however, where firms advertise against rivals, the “business stealing” effect noted by Marshall (1919) may overturn any benefit that exists under monopoly, as firms are led by a prisoners’ dilemma logic to incur fixed costs in combative advertising that exceed what they would prefer to do, were they able to cooperate. The effects here have been established by assuming that advertising provides truthful information that allows customers to search for brands with particular characteristics and thus bring consumer gains by increased competition and lower prices (Grossman and Shapiro 1984). Nevertheless the *overall* effect has been shown to be negative once there is a sufficient number of competing brands so that there is only a small probability of a consumer being ignorant of all available choices. Grossman and Shapiro assume inelastic demand which seems reasonable for brands in a mature market so that advertising is just about market share gains and losses; for empirical support see (Lambin 1976). In this case, the beneficial aspect of improved matching

⁴ This feature is stressed in the 1980s vintage of Yoplait ads whereas a decade later the emphasis had changed to the more obviously persuasive notion that it was a “French” yoghurt. Contrast the two clips respectively in : <https://www.youtube.com/watch?v=SYXKR_VZmlo>; <<http://www.youtube.com/watch?v=Ktb9ETD4orl>>, both accessed 24/02/2014.

between consumers and products is dominated by the wasteful aspect of “merely shuffling consumers between firms.” (Grossman and Shapiro 1984, 76).

The above result is for truthful advertising but the case is stronger where this is not so, which apparently is by no means unusual. For example, about half of respondents to the UK investigation on price advertising (OFT 2010, Annex H) say that information has resulted in ‘wasted journeys’, ‘wasted time’ or ‘extra hassle’, and around a third of consumers say it results in ‘giving up on searching for the best price’ or in their ‘buying an inferior product’. False or unsubstantiated claims may result in large shifts in consumer patterns of behavior as is evident from substantial damages awarded in class action claims on health products. In addition to false claims, ads can also mislead by omission of relevant information, an issue of particular concern with regard to health products. While the anti-depressant DTC ads mentioned earlier may formally correspond to the economist’s notion of information, the authors remark that the product promotion conveys “no real information” that would allow consumers to learn their true match with the product.” (Meyerhoefer and Zuvekas 2008, 2).⁵ It appears then that even advertising classed as informative may conceal numerous “bads” as well as some undoubted goods.

Persuasion and Social Prestige

Combative behaviour is not only a feature of informative advertising; it also characterises persuasive advertising where it does not have the virtuous effect of lowering price. If such advertising is effective but can be neutralised by rival advertising, the end result may be to leave market shares unchanged but at a higher resource cost for firms. Such advertising is a feature of many consumer industries such as beer, tobacco, or cleaning agents, where price sensitivity falls as consumers become (temporarily) attached to particular brands and indeed the evidence is that such advertising

⁵ Other work on DTC advertisements found that they provided the consumer “...with confusing and incomplete information”, that nearly 90% of doctors thought that too much money was spent on DTC advertising, and that documentation was more informative than listening to sales reps (Parker and Pettijohn pp. 283, 289)

raises prices (Iwasaki et al 2008; see also references in Chen et al 2009). Of course there may also be a social gain from increased variety but this can turn negative as product proliferation rises (Scherer 1983, 162).

Persuasive advertising has traditionally been viewed more negatively than that conveying information. Interestingly, however, it is not possible to show unambiguously that it lowers welfare in the monopoly case i.e. abstracting from the effects of combative advertising. While it is true that higher pricing power implies a demand restriction, the welfare effects of persuasive advertising can be argued to contain a positive term, as long as the persuasion is not pure manipulation *i.e.* as long as the consumer values being persuaded. The situation is therefore balanced and depends on the weight of competing effects. When the consumer is persuaded to pay more for a product, a monopolist would restrict output growth, thus limiting the consumer surplus for new consumers; at the same time consumer surplus would rise for *existing* customers who value the product more as a result of advertising. As long as the latter dominates, there would be a social gain to *more* advertising beyond the profit maximising level. The result thus depends on the way that advertising changes the demand curve; where social prestige is the main reason for advertising it seems likely that existing consumers gain most, resulting in a view that advertising is deficient.⁶

Is this argument convincing? The general idea that social prestige should be valued is hard to argue against from a rational liberal perspective. This follows even if ads have no cognitive content; on occasion, people might value the stimulation of desire or exposure to manipulation – there is after all a demand for theatre and even magicians and arguably consumers can be complicit in their own deception. On the other hand we know from behavioural economics experiments that people deviate from cognitive rationality without recognising it. We also know from neurological studies

⁶ See the example in Belleflamme and Peitz (2010), section 6.2.2. A social planner is concerned with the average customer whereas the private firm considers the profit impact of the marginal customer.

that desires can be manipulated through subtle signals targeted at the limbic system.⁷ The distinction between wants and needs is also an important one in this context (Pratten 2001). Welfare analyses need also to consider system level effects; social prestige is by definition exclusionary and may simply amount to rearranging a fixed amount of meaning or power in society (Veblen 2015).⁸ Formal modelling has shown how advertising high status products may cause a decline in the utility of low-status goods relative to their pre-advertising evaluations (Bhatt 2012).

It is not easy therefore to resolve the issue of how to value increased social prestige (Ramello and de Silva 2006). Since the consumer does not always get a choice in consuming ads, it can be argued that a social, reflective view would be better suited to arriving at a welfare calculation e.g. some version of political choice or deliberative democracy: “welfare economics should be concerned with the conditions under which people’s preferences form and not simply with how best to satisfy them” (Hargreaves Heap 2013, 998). This remains so even if we do not fully understand how preferences are formed and how they might depend on institutions or habit. Social prestige thus seems a slender reed on which to base a defence of persuasive advertising as there are doubts as to whether the usual welfare framework is valid.

Persuasive advertising by large brands is of course not just confined to products that the consumer regards as central to their identity. In particular a whole range of food, drink and household goods are characterised by persuasion and “...it is less clear how the consumption of name-brands of hotdogs, liquid bleach, aspirin, or reconstituted lemon juice could affect one's self-image” (Hite 1991, 120). It seems important to understand the rationale for advertising intensity that characterises these products.

⁷ For an insight into how marketing professionals advertise their own professional skills, see the following discussion on advertising yoghurt : “...the demand driver is the biological motive “balance”, which is triggered by one of several implicit meanings, such as “country”, which is in turn evoked by non-verbal codes, such as an image of a friendly cow.” (Market Logic 2014).

⁸ Pratten (2001) cites Ronald Coase as recognising the systems effect of advertising: “we have to judge an activity such as advertising, which influences tastes, by deciding whether it tends to produce good people and a good society... judging by the emphasis in advertisements on convenience, cleanliness, and beauty, such effect as it has is presumably generally in the right direction’ (Coase, 1977, p. 10).

Signalling, Quality, Brands and Behaviour

The very act of advertising itself may be a cue to quality if consumers rationally believe that only high quality firms would find it profitable to advertise (Nelson 1974). Firms with high quality can potentially get repeat sales from a large number of customers and thus will want to advertise. Low quality producers would not wish to advertise because they would not get the repeat purchases were they to disappoint their customers. It is high quality producers therefore who have an incentive to advertise with the result that those goods that are advertised will tend to be of high quality. Consumers will internalise this pattern so that advertising becomes a predictive signal of high quality. One problem, noted by Bhatt (2012) is that the skill content of the advert should be irrelevant in signalling theory as only the expense is important and that is only rarely publicised.

The signalling theory of advertising suggests a link between quality and (costly) advertising even if there is no direct information offered in the ads. As summarised by a leading strategy economist: "Consumers are right to believe that branded products are of good quality, not because the manufacturer claims they are – mostly they do not – but because there is little point in branding products that are not." (Kay 1997). Drawing on Nelson's work, Kay (1995) explains that modern brand advertisements are not about information. Whereas old-fashioned advertising tried to convince customers of quality, that was a pointless effort because truthful messages will not be believed – they tend to get contaminated by others free-riding on trust. There is a game between consumers and advertisers that has an equilibrium in misleading information and sceptical consumers. Knowing this, advertisers no longer aim to "tell" the truth. The medium is the message in that most brand advertising is "conspicuously expensive and generally uninformative" (258).

This argument is not watertight however. Low quality (thus low cost) firms can mimic high quality, through high advertising spending (Schmalensee 1978; Tirole 1988). Subsequent second-generation work attempted to tighten the theory to see under what conditions and assumptions it would be possible for firms to use a combination of high price signals and heavy advertising signals so that

there was a clear dividing line (separating equilibrium) between the high and low quality firms. These signals, set at the right levels, would allow consumers to identify the class of firm (high or low quality) and thus make it worthwhile for only the high quality firm to signal quality. (Milgrom and Roberts 1986; Belleflamme and Peitze 2010). If the signal could be identified, the low quality firm would not find it worthwhile to mimic the high quality one. Once again, advertising could play a useful role in indicating quality even where advertising conveys no information other than money is being dissipated. These models, however, are highly restrictive and expect much of consumers in cognitive ability (Martin 1993), not to mention the capacity of firms to coordinate price and advertising in a complex manner.

The second generation signalling models are restrictive in another way too. Whereas the intuitive, first generation models had assumed their theory to apply to brands, the more formalised second generation theory is restricted to newly available experience goods where quality cannot be inferred before consumption, and once quality is ascertained, makes advertising unnecessary. Such theories are not relevant for brands which are continually advertised and where consumers are already informed (Horstmann and MacDonald 2003, 319; see also Martin 1993). It is possible to rescue the formal signalling model if consumers learn over time; but now the consumer has to display even more cognitive ability as the signal is product specific and would be different for products like catfood (slow learning) than for yoghurt. Furthermore the consumer has to be sure that firms are not trying to expand sales, in which case the signal would have a perverse meaning, "...a low-quality firm will optimally *over-advertise* to mimic quality [and]...the high quality firm should *decrease* its advertising spending." (Zhao 2000, 390, emphasis added).

Kay (1995) presciently deals with these questions by confining attention to long-term experience goods and by ruling out informative advertising so that the only message is : "that the advertiser has spent a great deal of money" (p.257). Even so he still has difficulty in explaining fully the link between advertising and objective product quality. The signal of money dissipation relates to quality

in so far as it confirms the company's plans to keep the brand active and thus confirms the characteristics of continuity and product consistency. Such assurance is quality of a sort – the yoghurt producers can be sued because they are still in business; the calorie count remains unaltered. But to put it in those terms is to accept that the objective quality level may *not* overall be related to the amount of advertising. Rather brands just represent a safe purchase with no surprises. If that is indeed what brands represent we could simultaneously hold the critical view that they deflect "... consumers from lower-price substitutes of equal or even higher quality" (Landes and Posner 1987, 274). Landes and Posner unfortunately brush aside the latter view with a reference to signalling models but, as we have seen above, these models have little to say about brands. At the end of the day the only robust position established in the signalling literature appears to be the careful text, but not the headlines, in Kay (1995). Brands that spend money advertising in specified markets such as experience goods that are not growing, may be able to credibly signal their longevity and consistency. That is however somewhat removed from the headline statement that "consumers are right to believe that branded products are of good quality" (Kay 1997).

Empirically, the literature results "do not offer strong support" for a positive relation between objective quality and advertising (Bagwell 2005, 54). To be fair the issue is difficult to test and in any case objective quality may not record the full consumer experience. It seems more sensible to rely on the consumers' own views since if the perception of the brand-quality link is missing, the theory falls. Survey evidence on brands shows a majority rejecting the statement that "on average brands that are advertised are better in quality than brands that are not advertised (21%;55%;24% for yes,neutral and no; Mehta 2000). A similar view is reported in Shavitt et al (1998) for general advertising - where only about half declare belief that ads are truthful in terms of quality and performance - and Schlosser et al (1999) for internet advertising. Such views are quite in keeping with the idea that brands are markers of consistency (but not level) of quality. Indeed brands may leverage their reputation for consistency to reduce quality below competitor offers (Hite et al 1991). The analysis here seems to anticipate later theoretical work on "greenwashing" where consumers

are faced with environmental claims by companies that are partly true but contain an optimal amount of lying. (Dewatripont and Tirole 2005; Bazillier and Vauday 2010).

Competition, Entry, and Advertising

Advertising has been argued to be anti-competitive; Historical US survey evidence shows that it is one of the major methods that firms use to deter competitive entry. For new products the percentage using advertising frequently as an entry barrier exceeds by a small margin that for R&D, being greater than 50% for both. For existing products, the entry-prevention use of advertising is also in excess of 50%, with pricing also important (Smiley 1988). Somewhat more muted results were obtained for the UK some years later with only about a third of respondents giving either a “very high” or “high” priority to advertising in entry prevention for new or existing products, a response far lower than for R&D (Singh et al 1991). Nevertheless this is not negligible and it may be increasing in importance if the same trends are noted for advertising as for other forms of intellectual property protection (Pagano and Rossi 2009).

Advertising has also been argued to be essential to entry, as when trademarks facilitate the establishment of new products or services that might not be provided at all without such protection. In judging whether advertising plays a constructive role in its effects on industry structure, it needs to be borne in mind that neither entry nor competition are unalloyed positives. With entry, each new firm incurs a set-up cost that is justified by taking sales from another firm – the so called business stealing effect (Mankiw and Whinston 1986). Entry is likely to be excessive (certainly in the case of homogenous goods) without some form of barrier. Similarly there is no correct amount of competition within a market since competition may affect the incentive to invest and innovate in positive and negative directions (Aghion et al 2005). It is therefore difficult to say whether or not advertising is welfare enhancing even where its effect on entry and competition is transparent.⁹

⁹ Furthermore there may be underinvestment or overinvestment in advertising from a welfare perspective depending on whether the set of alternative strategic variables includes price or R&D (Brekke and Straume 2008).

However some implications can be drawn under the theory of endogenous sunk costs that help to explain an industry's market structure (Kaldor 1950; Sutton 1991; Bresnahan 1992).

Sutton divides industries into those that are defended from new competition by natural barriers to entry such as scale e.g. aero engines and those where the barriers are created intentionally by firms themselves by engaging in expenditure such as marketing and R&D (endogenous sunk costs). This helps to explain why some industries with low natural barriers to entry such as bottled water are dominated by a few players who advertise heavily. Without that the industry would be chaotic with permanent waves of entry, failures and low profits. Expenses like advertising (and in some industries R&D) act as a device to form a concentrated market structure because potential entrants know that as the market expands in a way to permit market room for newcomers, so will advertising intensity. Unlike technical barriers to entry the endogenous sort do not weaken with market size.

In this framework, advertising plays the role, not of increasing the size of the market but of regulating entry. However, a simultaneous increase in advertising intensity by all firms other things being equal should increase the demand *per firm* on the assumption that faced with an additional advertising cost, profit will only be positive at higher concentration (Grossmann 2008). The effects of this on the economy depend on a number of assumptions and in particular technological ones. With R&D scale economies operating at the firm level, higher demand per firm feeds through into higher R&D which in a typical endogenous growth model would lead to a higher rate of growth. The positive effects of advertising in such a model therefore arise from the effect that it has on concentration and therefore on efficiency. This is entirely in the spirit of Kaldor (1950). It is far from clear however that this is an optimal way of ensuring a market structure beneficial to innovation. Given that the growth stimulus arises from higher R&D, an intervention that tilted the sunk expenditure from advertising to R&D would perform the same task at a lower resource cost to the

economy. This could be achieved by differential input taxation as long as income effects were dominated by relative input costs substitution effects.

ASSESSMENT

The previous section has shown that the case for advertising really is elusive. An evaluation of the rationale is presented in Table 1, setting out the channels of influence already discussed viz. information, “good persuasion”, signalling and competition. In each case a set of criticisms is also summarised from the earlier discussion. A reasonable interpretation is that there remains little in the way of robust argument once these criticisms are taken into account.¹⁰ It can be concluded that the level of advertising is excessive. That view is of course compatible with advertising also being necessary and valuable, since the effects of advertising are likely to show diminishing returns and it is not contested that banning all advertising would be welfare-reducing. However we cannot find in the literature any consistent evidence for the advertising industry’s own claims that “Increases in advertising spend boost competition, improving quality and pricing for consumers.”(Deloitte 2013, 8).

¹⁰ The conclusion would be strengthened were the discussion to be broadened to include social externalities such as the encroachment on the environment and on limited personal cognition space.

TABLE 1 Advertising: Channel, Rationale and Criticism

Channel of advertising benefit	Rationale	Criticism
Advertising as information	The market is expanded by knowledge of the existence and characteristics of products and services.	Ads contains few cues, apart from existence so that the role of information may be minor outside of novel products and services. Informative advertising is excessive when combative.
Advertising as "good" persuasion	Even apparently uninformative advertising enables consumers to identify with brands and to enhance self-image	The process of creating or enforcing desire is not transparent. If social meaning is limited there is a negative externality.
Advertising as a signal, not direct information	Ads signal quality: firms only advertise when quality is high and repeat sales are likely.	Brands are valued for consistency or image and not for objective quality.
Advertising as necessary for competition	Without advertising, either... (a) growth of large efficient firms would be inhibited or... (b) entry of superior quality firms would be discouraged.	Where sunk costs are endogenous, public policy can affect the mix of different types of sunk costs to support any given market structure and entry conditions.

There appears to be little peer-reviewed work that establishes that advertising expenditure increases GDP in the way that the advertising industry tends to claim. Macroeconomic studies have mostly looked at the relationship of advertising on consumer expenditure but while some studies have shown these series to be formally cointegrated, the causal pattern remains unresolved (Jung and Seldom 1995; Malinari and Turino 2009). This not unusual with studies of economic aggregates and it mirrors a long-running controversy over the causal patterns of investment and growth that began with deLong and Summers (1991). As noted in Jung and Seldom, even if advertising were to

work through increasing consumption, the long-term effect on growth would be ambiguous and would depend on the effect on other spending aggregates such as fixed investment.¹¹ The overall effect would require a consideration of whether the economy was demand constrained and whether endogenous growth could be propelled by greater product differentiation.

Yet another consideration is whether advertising affects the supply of labour by making consumption more attractive than leisure, something that has been argued to explain the long work-hours pattern in the US relative to European countries as advertising intensity is greater in the former. (Cowling et al 2011). In this case it has been argued that advertising could affect consumption "without crowding out investment" (Molinari and Turino 2009, p.7). In Cowling et al advertising intensity is defined as real expenditure per capita rather than a ratio of GDP. The distinction is important because the latter is mean-reverting and cannot determine a trend in behaviour whereas advertising per capita increases secularly with product differentiation and rising incomes. It is not immediately clear which is a better measure of buying pressure on consumers. Thus, although it is plausible that advertising patterns across countries will be reflected in differential time use, with greater advertising intensity resulting in lower non-marketed consumption and leisure it is not clear that the argument can support a proposition that increasing levels of advertising per capita propels higher measured growth.

A direct test of the effects of advertising on macro-economic growth is rare in the literature. Kopf et al (2011) regress the growth of GDP on advertising share for a large number of countries but do not report the results for the full panel. For a subsample of most of the countries in the sample, where advertising intensity is greater than 0.75% of GDP, the result is *insignificant*, a finding which the authors attribute to "...the possibility of competitive and unproductive advertising" (12).¹² The

¹¹ A similar point is made in Pitelis (1991) in respect to the observed positive impact of advertising on profits which is noted to have little implication for the effect on growth.

¹² For 27 countries with a lower advertising spend than the threshold, a quadratic effect is reported. While significantly positive at low advertising intensity, the joint effect is *negative* at the higher end between 0.7 and 0.75% of advertising to GDP ratios.

implication is that the informative role of advertising (the first row of Table 1) is overshadowed by less useful forms and that a marginal reduction in advertising is unlikely to do economic damage.

SHOULD ADVERTISING BE TAXED?

Excessive advertising raises the question of whether policy instruments exist to counter this. At present advertising policy is dealt with on an ad-hoc basis with interventions often framed as limitations or outright bans e.g. tobacco ads in the EU. The concern over excessive advertising implies a broader agenda of reducing the resource cost as a percentage of GDP to an acceptable level without doing any collateral economic damage. The taxation of advertising is an obvious instrument (Geller 1952; Corden 1961; Cowling 1975; Wengrover 2009). In the United States, advertising taxes have been much discussed but the only district of any size currently to have a sales tax is the city of Phoenix which has applied it since 1949; the rate is 0.5% of sales having been much higher in the 1980s when the State of Arizona also taxed advertising. Florida too introduced an advertising sales tax in 1987 but it was withdrawn after advertisers pulled business from the state. In 2013, lawmakers in Ohio and Minnesota proposed to introduce a 5% sales tax rate on advertising, with the aim of funding other personal and business tax cuts (Tax History Project 2014).

At federal level in the US, bipartisan support has grown for excluding advertising from the tax deductibility that characterise most business services. The proposal from the US House Ways and Means Committee is to capitalise a portion of advertising, so that only 50% can be claimed in the first year and the rest is spread over the subsequent 10 years.¹³ Apparently the revenue potential of such a step is significant; it has been estimated that a less severe reform with just 25% capitalised would produce tax revenues of \$20bn annually in the US (Goldwein et al 2013). Of course, the effects of such a tax depend in part on how client firms of advertisers and advertisers themselves

¹³ A justification for this move could be based either on the arguments advanced in this paper or on the view that advertising is an investment in intangible capital rather than an intermediate expense.

react to it. Unless the advertisers trim prices, the cost will fall on business; given the fixed cost nature of advertising expenses this will be difficult to shift to the consumer. According to the advertising industry, the result will be less advertising and lower consumption, resulting in lower economic growth. However, the latter effect requires evidence that advertising causally stimulates the economy and as we have shown above such evidence is lacking.

In the case of the last two of the channels of influence in Table 1, it can further be argued that a tax on advertising would be neutral or beneficial in its effects, while resulting in revenue that could be directed to other ends. First, for the pure signalling theory of advertising, this follows logically from the theory itself; here we put to one side our earlier doubts as to whether the theory has empirical support. Accepting, for the sake of argument that advertising implies better quality - an advertising tax would result in no economic harm since the signal depends on the amount of money dissipated, not on the physical effectiveness of the ad. Put differently, firms who respond to the tax by reducing advertising will still be able to transmit the fact that they are spending money since the tax will be public knowledge. They will, therefore, not be disadvantaged with respect to non-branded goods and it will still be worthwhile to build brands to signal consistency. To be sure there may some limit to this reasoning in that a grainy image produced on rough paper is unlikely to impress, but at the margin the argument is valid. As long as the tax can be levied on all firms competing in a market the end result should be neutral.

Turning to competition and concentration effects noted in the last row of Table 1, how would these be affected by an advertising tax? In Sutton's endogenous sunk cost theory, any effect of a tax would depend on how it changed the minimum sunk cost that is incurred for any given market size. It is tempting to conclude that since the sunk cost is endogenous - set by firms so as to prevent returns being negative due to excessive entry - the effect should again be neutral with respect to the tax. On that view, rather like with the signalling model, the role of advertising is just as effective when the expenditure accrues to the government rather than to the media companies. Such a view is

oversimplified, mainly because it neglects that there are a number of different types of entry barrier and different types of endogenous sunk costs that can deter entry. For example, changes in the relative cost of advertising and innovation expenditure may simply cause a substitution of one type of endogenous sunk cost over another leaving the firm unaffected but social welfare improved (Grossman 2008). Put simply, a tax on advertising would tilt expenditure from advertising to other sunk costs such as R&D (Dukes et al 2014). Of course in some cases, advertising and R&D may not be good (Hicksian) substitutes. At low levels of advertising, it may be very difficult to reduce it further; in surveys, firms report that that advertising is “indispensable to a product launch” (Singh et al 1990, 9). Nevertheless, fixed input coefficients are unlikely over the full range so it is likely that an advertising tax would increase innovation expenditure. Sutton’s theory largely relates to equilibrium outcomes for the level of concentration in markets. Others may worry about the dynamics of competition or the level of churn that allows new firms to replace others; here a tax on advertising may appear unattractive unless accompanied by some exemption level at low market shares. Alternative policies could include making the renewal of established trade-marks conditional on a reduction in advertising.

CONCLUSIONS

There is no convincing support for the advertising industry’s claims that there is a positive effect of advertising on the level or growth of GDP, driven by induced competition and choice. Not only is there a lack of empirical evidence for the basic proposition but the positive effects of each of the channels of influence is disputed in the literature. Most advertising contains little useful information, something that is agreed by pro-advertising economists who espouse signalling theory. Even where advertising is informative it is hard, theoretically, to establish its merits, except for a monopoly, because of the mutually destructive effect of competing firms’ messages. That point applies with even greater force to persuasive advertising where prices are being raised by

differentiation so that any defence has mainly to rest on the disputed logic of valuing prestige effects. The theory of signalling is valid insofar as brands indicate consistency but not necessarily quality. Furthermore, whichever view of signalling is taken, its effect depends only on the budget spent, not the physical amount of messages, something which points to a role for public policy (taxation) in driving a wedge between the resource cost and the amount companies have to pay for a unit of advertising. In regard to competition, while the Kaldor-Sutton view of advertising as shaping market structure may well have merit, other forms of sunk cost expenditure can achieve the same end and involve less dissipation of resources. Finally, advertising displays a number of "bads" not least that it displays a combative race to colonise public space in intrusive ways. As stated recently by the CEO of one of the world's largest media groups: "...there is now even more emphasis on making ads compelling and unskippable" (Blackett 2012).

A tax on advertising would reduce the number of messages, with little or no negative effects on the economy, and yield revenue that could be used for a variety of purposes. Supporters of a tax have variously suggested that it be earmarked for reducing general business taxation, retained to support media activity such as film or public information, or used to subsidise a substitution by firms from advertising to innovation. These proposals pose little risk to the economy. For believers of the signalling model, a tax on advertising should leave unchanged the economic impact but achieve it at lower cost. For those who agree with endogenous sunk cost theories, the role of advertising can be just as well played by innovation. It seems that there is little to fear from policy measures to limit advertising.

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