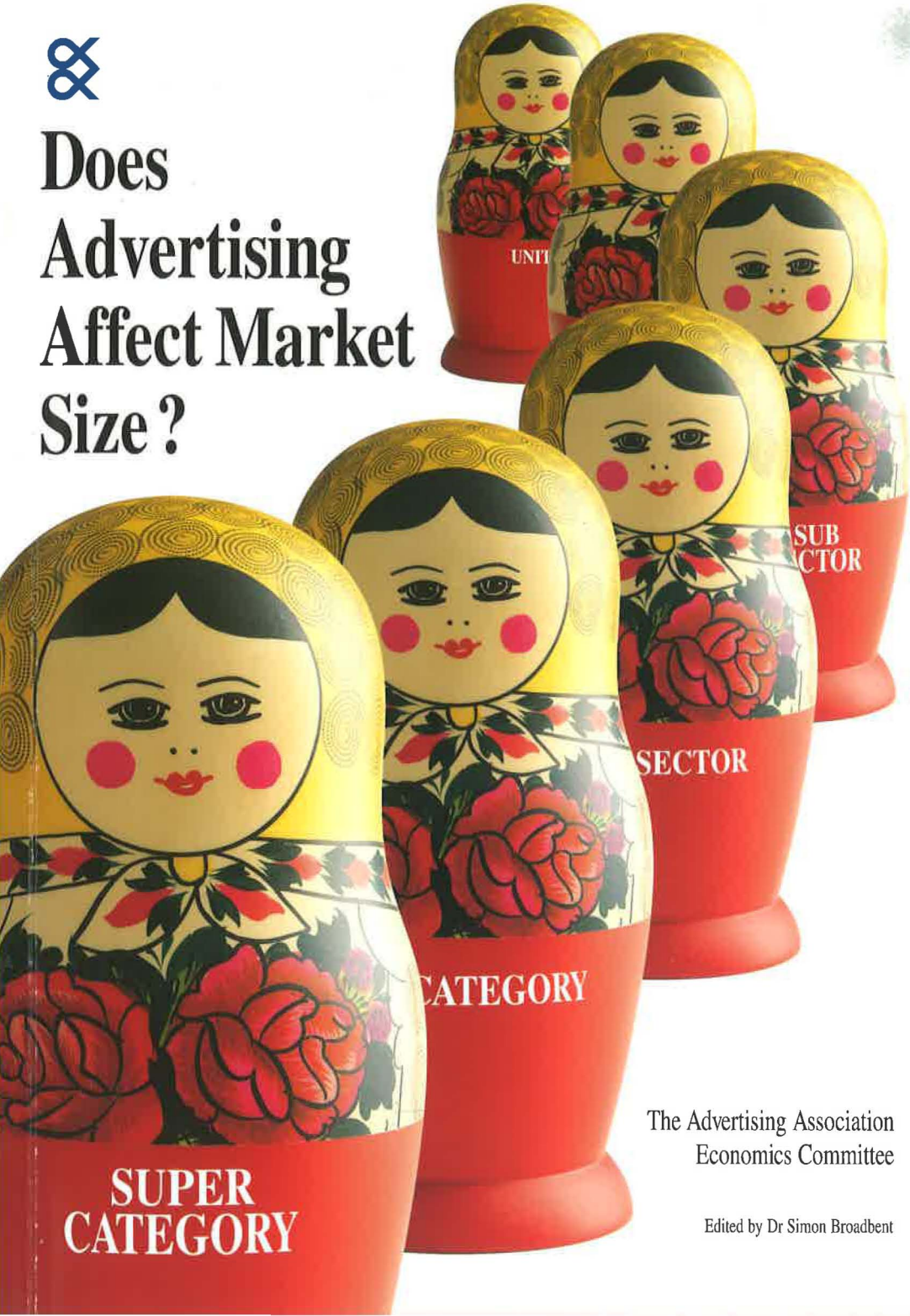
Does Advertising Affect Market Size?



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Edited by Dr Simon Broadbent

DOES ADVERTISING AFFECT MARKET SIZE?

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I was fortunate, in chairing the Economics Committee, to have such a strong team. The final text, and all errors, are mine.

Vivian Braun, under the direction of Tim Ambler, carried out our interviews, an analysis of the *Advertising Works* papers, and summarised other material; I have relied confidently on her reports. Colin McDonald also analysed *Advertising Works* for us.

The econometricians we interviewed are credited in their own section.

Simon Broadbent

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Summary and conclusions

Why ask the question?

Advertising for brands might be – as is usually intended – a weapon in the war between brands for market share, but no more than that. Or it might be a way in which all the advertisers in a market combine to increase its size.

These two statements seem contradictory. People have argued fiercely on either side; the debate has been particularly heated in the markets for alcohol and tobacco; it has implications on the freedom to advertise.

The purpose of this paper is to examine the two views, to discuss some of the evidence, and to see whether they can be reconciled by changing the terms of the debate.

It is not sensible to expect one view or the other to apply in all cases. If advertising expands one market, we cannot conclude it necessarily grows another – and vice versa. We should examine the facts about each market in question.

When we define a 'market' narrowly, as just a few brands, and under certain conditions, we expect advertising to accelerate the growth of the total sales of these brands. As we enlarge the definition, to include a large number of brands, the increase in the total may become negligible or zero.

A careful definition of 'market' has wider benefits than in this debate. The choice affects the way advertising is planned and evaluated by practitioners.

The conclusions reached in this paper are as follows.

Is there a general answer?

The question, 'Does advertising increase market size?' cannot be answered until a particular market is defined.

This can be done at different levels. There is always a hierarchy, of which 'sectors' making up a 'category' is just one example.

There *are* market size effects, in some markets, at some level, and as a result of some brand advertising.

This can be consistent with no effect at some higher level.

No *general* answer to the question is expected. There is always the *possibility* that advertising affects the size of a particular market, but its actual scale and significance are highly variable across individual cases.

Different answers for different sorts of market

Markets differ by type, and these differences affect the likelihood of advertising effects being found.

- *increase is less likely*

  Effects are not generally expected where the market is large and already satisfies some basic and temporarily unexpandable need.

  At very high levels of aggregation, advertising effects are small if detectable at all.

  Some advertising does not succeed in growing the brand, let alone the market it is in.

- *increase is more likely*

  Positive effects are most likely to occur in certain circumstances, which may overlap. They all require the advertising to be well targeted and motivating. Our hypotheses about the existence of market size effects are that they are more likely to occur:

- in small markets with very similar products,
- in new markets, or those with many new products,
- when a market includes an unusually high proportion of triallists,
- where a single brand dominates and growth must come from increased consumption in the market,
- where the market is already growing for other reasons (popular and successful product improvements or social change, for example),
- when a group of manufacturers combine openly to advertise for this purpose, with a generic campaign.

Other causes

Advertising effects, if they exist, are almost always smaller than from other causes of market size change.

Some of these causes have very complex connections, difficult if not impossible to disentangle: product innovations, demographic and social trends, other media influences, public opinion and so on.

Convincing evidence of an advertising effect cannot be offered unless other possible causative factors for market size change are included in the argument. Simple association is not enough.

There are statistical weaknesses in some reported studies of advertising effects on market size.

1. Introduction

The title is referred to in this paper as 'the question'. Later on, we replace it with a 'new question'. If we could answer the new question, we would also answer the first. The advantage of the new question is that it brings out the fact that any market is made up of smaller groups. Understanding the hierarchy of the market helps us to see what sort of effects from what sort of advertising we should look for.

The paper is an attempt by analysts and researchers to tackle the question in a fresh way. The answer which is given more precisely below is, 'Sometimes it does, sometimes it doesn't.' In our view, the defence of the freedom to advertise is better served by a study about the circumstances in which market size effects exist, than by a presumption that they either exist or they don't.

To deal with the question needs some careful definitions, and these are developed first. What we mean by 'market' is the most important of these. Markets are of different types, and this too is discussed. The way advertising can affect different sorts of market turns out to be critical. There are cases where the effect clearly exists, and examples are given; there are others where careful examination has failed to find effects and advertising, as many manufacturers usually suppose, affects only brand share.

We would dearly have liked to develop criteria which distinguish between these two extremes. We have been able to make some suggestions. We would also have liked to determine in detail the methods of segmentation by which categories and sectors should be decided, and the analysis methods which unerringly sort out what advertising does and what is due to other influences on market size. Both of these are commented on, but such problems are not resolved here. They are at least described, while many workers in the subject seem to us not to have considered them carefully enough. Some have rushed in with answers based on over-simplified ideas of what a market is, or on exaggerated ideas of the power of advertising, or without considering other causative factors, or with unconvincing analyses.

Another task we set ourselves has not been achieved. It was our original intention to take a major market, to design and commission a new study, to carry out the segmentation, to examine the influences and so to give an example in detail of the way we believe the job should be done. We progressed some way down this path, but the more we thought about it, the more we saw that the work was beyond our current resources.

We hope that more work will be done, of higher quality than most so far. We hope we have made some analysts aware that the question has no simple answer.

The 'commonsense' argument nevertheless looks strong and is often used. It leads to the answer, 'There must be market size effects.' The argument is stated and its supports are described. It is a qualitative and emotional case, and in the end unconvincing. Other explanations for the observations exist with an apparently equally strong case. It is not a matter of choosing one side or the other. It is a matter of finding out how much each factor contributes to the observed result. To anyone who says, 'Here is a market size effect,' the correct response is, 'How much, compared to the effects of other causes?' The ideal is not a courtroom with a guilty or not guilty verdict but a laboratory or seminar in which the causes for what is observed are disentangled and weighed.

The debates are unfortunately statistical. 'Unfortunate' not because the techniques are inappropriate or weak – the opposite is true – but because the proper use of statistical argument is not given to everyone. Thus its most important questions, 'Have we included all the relevant factors? Have we specified the model correctly?' have too seldom been asked.

We have collected some new pieces of evidence. These make no claim to be comprehensive, but they are very relevant. One is an analysis of the collection of case histories of effective advertising published for the Institute of Practitioners in Advertising in the series *Advertising Works*.

Of course this sample is small, compared with all campaigns; of course the sample is biased, as we are looking at particularly successful advertising.

Also they describe the effects of individual brands, not of all the brands in the market. In their search for every possible way in which their campaigns produced beneficial results, we might expect the authors to look for growth in markets as well as in brand share. This is sometimes the case, and we summarise those papers in which, with a generous judgement, it can be argued that these effects were shown. There is good evidence that market size effects can exist. There are many more papers where no such claim was made, though we must assume it was considered. So these effects are exceptional.

The second novelty is a report on interviews carried out with advertising analysts and econometricians. Again the sample of people is small, but their joint experience covers many case histories. There are problems of confidentiality, as their work is usually restricted to their clients' eyes. But this learning from professional modellers, used to thinking about markets and their segmentation, about the many and varied different effects of advertising, has real value. Again we heard about effects on market size, and again we now know on what kind of market the effects were seen.

These two sorts of practical experience, together with a look at the vast body of literature on the subject, have led us to a point of view. We hope it will help the industry as it continues to ask the question.

2. *Three definitions*

The words in the title are not as simple as they look. Three need straightforward definitions.

Advertising means here display advertising for brands. Mostly we think about TV and print advertising.

The objectives of these campaigns are to defend or increase brand share within the market. The primary purpose of the advertiser is not about the size of the market. The question in the title is whether, nevertheless, an effect is actually seen there.

Advertising which is primarily aimed at defending or increasing market size is a different matter. Generic campaigns for bread, eggs, milk, seafish, raisins, avocados and so on are only briefly discussed here. That some of them work is undeniable.

It is also possible to have mixed objectives: to grow both brand share and the size of the market. British Telecom's 'It's good to talk' is an example.

Size is measured by purchase and consumption – by the number of litres or tonnes or units actually bought. We are not thinking about any other effects of advertising, or about the measurements of attitudes and beliefs which may describe how the advertising worked.

We hardly discuss the *value* of markets (unit price information is needed). We only mention *penetration*, the number of shoppers who buy in the market in a fixed interval (frequency of purchase data is needed). We do not go into the average *quality* of the products in the market. All of these are likely to be associated with brand marketing activity and the other causes mentioned here.

Affect means here only one sort of result – whether the market size is increased or not *by the advertising*. Is it the case that a greater quantity in the market is bought than would have been purchased without the advertising?

In practice we mean 'a significantly greater quantity'. It matters little if half a dozen more units are sold. We look for meaningful growth.

The first difficulty is that some categories are in decline, and the effect looked for may not be to reverse this, but to slow it down. More of the market is bought because of the advertising but this does not show as an increase in the total. We interpret 'increase' as including here 'less of a drop'.

The second difficulty is in the phrase 'would have been bought without the advertising'. This reminds us that markets change in size for many different reasons – and we meet some later. There are reasons other than advertising which encourage some of us to start buying in the market, or to consume more. There are also reasons why some of us drop out of the market or buy less. In order to separate out what the advertising effect is, we have to say what the effects of the other causes are. It is not enough to carry out an analysis of two variables alone: advertising and size. Association does not prove causation.

It is dangerous to assume that market size would be steady without advertising, or what comes to the same thing, that the only reason for change in size is the advertising. Similarly, the fact that a market is growing – and that it is advertised – does not *prove* the advertising is the cause. There may be some other reason – a higher standard of living improving health care, for example.

Just as with other estimates of the size of advertising's effects, the most secure way is to build a model in which each of the causes of change is given its due weight. With all these factors, we are able to fit reality. The advertising term tells us how much is due to advertising. Modelling is an art, of which two important parts are the specification of what factors matter, and the form their contribution takes. Some other sources of evidence are qualitative, and valuable for explaining *why* the changes are happening. They add conviction to the case; they do not prove it on their own.

It is in practice important to determine in what way market size is changing, as this may be key in estimating how the advertising is working. The effect may be more to increase penetration – to recruit people who previously did not buy. Or it may be more to help create extra consumption – to improve the rate of purchase among buyers.

3. Market

In normal conversation we use the words 'market' and 'category' interchangeably: the long haul holidays category, the newspaper market, the canned soft drinks category, the cheese market, and so on. That is a statement about the UK; in the US 'market' is more often a geographical definition: 'the top 100 markets', meaning cities and regions.

In this paper we cannot afford to think loosely. The question is too important and too contentious; it requires us to be very clear in our definitions. So I now lay down the language used here.

> A **'sector'** is *a group of products each of which is an acceptable substitute for the others.* The shopper chooses between these products. Of course this only shifts the difficulty to the words *acceptable substitute.* We have decided to treat these products as direct competition to our brand: we believe they are often substitutable for ours.

'Sector' usually implies that there are several other sectors, making up a category: the malt whisky sector and the blends sector, for instance, or the regular canned soft drinks sector and the diet sector.

In a sector *each* shopper is not equally likely to choose *any* of the brands. In most categories there is some degree of brand loyalty: an individual shopper satisfies a high proportion of her market requirements with a small number of brands. The object of advertising is often to add value to a brand so that it is preferred in this way by a good number of shoppers. For most brands, many of the shoppers never buy them. So we cannot define 'acceptable substitute' in a simple way by behaviour; we have to be rather subjective in our definition. What we mean in practice is that we *think* they are roughly equivalent, or that they are recognisably of the same *type*.

> A **'category'** is a *group of sectors,* between which there is also substitution, but there is less between brands in one sector and another than within a sector.

These definitions are directional: I am not laying down a method for determining how they are operationalised in a particular case.

A brand belongs in a sub-sector (Philadelphia is a cream cheese) *and* in a sector (cheese) *and* in a category (milk products) *and* in super-category (food). But it would be plausible to call Philadelphia a spread, or a biscuit and bread additive, and to make another hierarchy based on products like fish paste, jam and ham.

Another difficulty in the category definition is in the questions, how much substitution is 'less' and when are categories really separable? The inevitable looseness in all these definitions causes us problems. The same brand can be thought of in one tightly-defined small sector or in another; it is similar for a category – or some other bigger group. It is impossible to say there is no leakage from one category to another, and anyway two analysts will not always agree on their definitions. Which of their classifications should we use?

One answer is given by actual consumer choice, or, as a second best, what people say they think or will do. In the long run, consumers make all the important decisions. However another answer may be given when the manufacturer sets his strategy. This should not depend only on what consumers do now. We must always remember Theodore Levitt's famous question, set in the days of the horse-drawn carriage. What market was the buggy-whip manufacturer in? If he said, 'Horse whips', he is likely to be out of business today. If he said, 'Transportation equipment,' he is still doing well in the age of plane and car travel.

So we are not given an answer solely by looking at data, though this helps us: there is no generally accepted algorithm to follow, no absolute standard. The marketer alone decides whom he treats as competition, and where he expects to get business from. Similarly, we know that there are several layers or levels of classification but not how many. The brand is in the reduced fat sub-sector of the margarine sector of the yellow fats category – or, the brand is a margarine in the spreads category. There is no standard on the number of levels to use, either.

There are of course solutions on offer. Paul Freeman (1996) recently gave this advice, based on his experience of the systems developed by the Hendry Corporation: 'Ignore the men in white coats and the way you've always bought the data. Listen to the consumer, and use behavioural data (i.e. purchasing panels) rather than attitudinal. Cast your net wider rather than narrower – think confectionery, not chocolate; think hot beverages, not coffee. Recognise that the market will probably be multi-layered – reflecting a variety of needs and segmentation. Recognise that some brands and segments have a maximum potential share of a market e.g. could decaffeinated ever take 100% of the coffee or tea markets?'

The practitioner is very aware that the decision to think about the brand he is dealing with as in a particular market is arbitrary and difficult. It is part of the work required in strategic planning. Are we in the snacks market? The slimming market? The convenience foods market? How we answer these questions helps us decide on the positioning for the brand we are advertising. Practitioners are really defining their source of business.

> A **'market'** may be a sector, may be a category: it is whatever grouping I wish to consider in a particular context. It is here *a general word for a 'group'* which covers any of the groupings I choose to apply it to.

Defining a market, and the hierarchy of classification, is work in taxonomy which reminds us of the systems used by biologists. They however have some accepted rules and definitions; for example, two animals belong to the same species if they can interbreed. Even helped by the rigours of science, their allocations are subject to continual change.

We are trying to do a similar job with worse tools: our constructs are much more arbitrary and subjective, more often based on tradition, manufacturing techniques, researchers' convenience and particular strategies than on consumer behaviour. In comparison with biology, our groupings are chaotic. Nevertheless, it is tempting to draw an analogy between the two

systems. Each of the groups below is contained in the group above; or, to put it another way, each group subdivides into the groups below.

phylum	super-category
class	category
order	sector
family	sub-sector
genus	brand
species	stock-keeping unit (by size, flavour etc)

A more familiar analogy is with the humble filing system – or with the root directory, directories and sub-directories which all PC users have to learn. How often have you lost something in the filing? This means that what seemed sensible at the time – 'It's a letter to A, we'll put it under A,' or, 'It's about B, we'll put it under B,' – is no longer obvious a week later.

Before giving more examples, consider this commercial case as it might be written by a UK Mitsubishi manager:

SUPER-CATEGORY	UK transportation
CATEGORY	Road vehicles
SECTOR	Private cars
SUB-SECTOR	4 wheel drive
BRAND	Mitsubishi
UNIT	Shogun

Obviously the number of levels might be increased: transportation might be split into road, rail and air. The Mitsubishi manager might well take the segmentation up to cars, and not consider total transportation at all (unless the company was considering selling private planes!). Or, he might call road vehicles the super-category and introduce a level for lorries, vans and

cars. He might start with 4 wheel drive private cars and finish with the different Shogun models. The permutations are endless.

The object might be to measure how sales of one Shogun specification affects the others, and the total Shogun model; or how the Mitsubishi range is doing against all vehicles registered in the UK. The point is, and it cannot be repeated too often, that the hierarchy is artificial and imposed by the user. The purpose of the analysis will dictate what a market is considered to be.

Now we can re-visit the earlier definition of 'brand' advertising. We mean advertising that supports the brand in general, or also the unit, for example the launch of a new formulation, or announcing a new airline destination. 'Mixed' advertising may be intended to affect also some higher level. 'Generic' should affect only some higher grouping than the brand. Note that the most disputed applications of our question apply at only a very high level: *all* tobacco, *all* alcohol.

In the Philadelphia example, it is reasonable to expect the brand's advertising to affect the size of the sub-sector in which it is a major player (cream cheese), but to do little to the sector (cheese) and to be negligible on the category which contains such very different products as cream and yogurt – let alone on all food.

Thus we might answer 'yes' to the question, 'Does the brand's advertising affect market size?' when market means the sub-sector, 'possibly' when it means the sector, and 'insignificantly' when it means the category.

Advertising a low-tar cigarette might cause the low-tar sub-sector to grow, but entirely at the expense of high-tar, so that the cigarette sector is stable, and the category of tobacco is also not affected. Here we give a definite 'yes' to the question, 'Does the brand's advertising affect market size?' when market means the sub-sector, but 'no' when market means the sector or the category.

There is nothing inconsistent in these answers, and nothing evasive in saying, 'It depends,' when asked, 'Does advertising affect market size?' The question cannot be answered until we have agreed what 'market' means in this context.

Is a chocolate bar competing with a chocolate assortment? Also with a snack? With a packet of crisps? With a soft drink? Even with a magazine? Conventions exist, of course: it is normal to say that this bar is in the 'bar sub-sector'. But a shopper going into a corner store with nothing more concrete in mind than some sort of refreshment, or way of passing the time, might walk out with any of the above.

How many families debate whether to take a holiday abroad and postpone replacing the car? Does anyone shopping for a special meal wonder whether to add a bottle of wine or buy the expensive steak? Is a 'designer lager' competing only with other premium lagers? With all lagers? With all beers? With every drink in the on-license? Do people giving up smoking (reducing the size of that market) then eat more (increasing another)? Do they smoke at Alcoholics Anonymous meetings?

As I write, newspapers tell us that the consumption of fresh vegetables is in decline. Christmas lunch is reported as 'the only meal in the year at which children receive an adequate intake of fresh-cooked vegetables'. But elsewhere we read that salads, fresh fruit and frozen vegetables more than make up the deficiency.

At the very highest level, everything competes with everything else in the household budget. Disposable income is limited. Total consumer consumption in the UK is, subject to broad economic factors, trending quite gently. The definition, or level at which we approach the question in the title, influences our answer.

4. Types of market

4.1 It is usual to distinguish between *new* and *old* markets. The difference is not a sharp one, since the first turns with time into the second. At one time bottled and canned colas, safety razors and fabric conditioners were all new. The same is true for toothpastes and deodorants – and we cannot argue that these types of product met needs which were always recognised, but dealt with in some other way. Rather, they were met, but by neglect.

We may call the new markets 'in the launch phase' and old markets 'post-launch' or 'mature'. We may not call them 'growing' and 'stable' since this begs the question. 'Mature' has been degraded as a description and here includes categories in decline.

There are two distinctions here which do not depend on changes in size. A *new* market is one where advertising is about products not known, or little known, to shoppers because the type of product is new; an *old* one is where most of the products are already broadly familiar to them (which is not to say that brand advertising has no work to do!). A *new* market is where a substantial proportion of sales are to first-time buyers: they are testing out the market; an *old* one is where very few sales are made to triallists. There will always be some first-time buyers even in very mature categories, the point is settled by the proportion of sales made to them.

It must not be forgotten that 'mature' markets, in the sense that they have been around for a long time, are not necessarily stable. A mature market is capable of innovation and growth. Mayonnaise and mouthwash are examples from the IPA case histories, frozen vegetables and ready to eat cereals can be quoted. Trends in going to the cinema have been reversed by product change – the multiplex, a bar in the foyer and so on. Others decline – recently for example bread, butter, meat, eggs, sugar, tea, instant coffee, cooking fats and whisky.

Under this heading we should note that all the controversy and nearly all the analyses are on markets which could be considered 'traditional' in that they have been around for centuries and if there is a ceiling they have

reached it, at least in the past. In contrast there are markets which are only a few years or decades old and which have hardly been studied in this way. These are the electronic, knowledge and entertainment businesses which have mushroomed recently. They offer new benefits which require explanation, a job done mainly by retailers, peer groups and the media but often crystallised by advertising. We have no evidence, but speculate that advertising is speeding up their growth.

4.2 Another distinction is between brand growth and brand creation or (re)launch. So far, it is existing brands we have discussed. But new brands arrive, or changes are made to brands which are so fundamental that they behave like new brands. Lucozade, for example, was moved from the sickroom to the sports field.

We then have a choice in classification. We can place the new brand in a new sector, which grows with the brand if it is a success and as competitors follow it into the beachhead. Or we can say that the existing sector grows. In either case, it is likely that a market grows at least partly because of the advertising. Novelties and breakthroughs in product development, accompanied by advertising, are not what is usually meant by the question addressed in this paper.

4.3 The skill of the manufacturers who make the products in the market has an influence on what answer we expect. It is notorious among analysts that, the better the marketing, the harder it is to disentangle the effects of the different activities. The point is that a first-class manufacturer tends to do everything well. If he is in or enters a market, then it is likely that his brands are better quality products at a more attractive price, well distributed and with excellent communications. He will look for opportunities to grow the market: to raise standards, to innovate, to produce more varieties, to reduce prices, to expand distribution, to improve advertising and other communications. If he is successful we will see an association between more advertising and more consumption but there is much more going on than this. Innovation and quality improvement (in the consumer's interest) are plausibly the more important factors. The innovator tends to brand

more strongly, to communicate more, so this association is revealed in cross-section analyses of markets as well as in the time series for the sector.

4.4 Markets differ in the number and relative sizes of manufacturers or retailers who make the products in them. Brand advertising can be expected to have different effects as a result. In an analysis of grocery categories the distinction has been made between:

Variety categories, with stores' own labels and the top three brands taking less than 80% of the volume sold, the consumer gets a very wide choice and a single manufacturer's communications are unlikely to affect its size.

In *Top Three* categories the major brands are dominant with over 75% of volume. Sometimes a single brand leader holds over half the volume and here his advertising may well affect the size of the market.

When *Own Label* is over 40% (it actually held 61% of volume in the study reported); these categories tend to be staple products with little branding by manufacturers, little advertising, and sometimes in decline as a result of price competition having made innovation uneconomic.

Head-to-head is the remainder, where neither own label nor manufacturers' brands dominate.

4.5 There is a close analogy between a brand and a market. The way we think about the brand, with all its stock-keeping units, is very like the way we think about a sector, with all its brands. The varieties compete with each other, the brand struggles with other brands, the sector is in a battle with other sectors. Where the analogy breaks down is that the brand always has a team guiding its progress and dependent on its success. The sector rarely has anyone overlooking its communications and its size. No one feels responsible for it in the same way. The only two exceptions are for generic campaigns, when the manufacturers have combined precisely for this purpose, and when a brand leader – or potential brand leader – deliberately tries to grow the sector because this looks to him more profitable than

going for share. These occasions are quite easily recognisable by the use of advertising claims which are more generic than competitive.

4.6 We should also distinguish between sectors or sub-sectors at the bottom of the hierarchy and those super-categories at the top. Low down, the markets are small, the brands are more similar and substitution is easier. Vermouths and wine gums are both markets, so are alcohol and confectionery. Switches between vermouth and sherry, or between wine gums and boiled sweets, are more likely than between an aperitif and a cider, or a boxed assortment and a bag of sweets. This is inherent in the categorisation: substitution gets more unlikely, though never impossible, as we ascend the tree.

There is another difference. The smaller groups can more easily rise and fall. Changes are very much larger when there are many alternatives; fashion and innovation are more powerful. But the larger the group, the more likely it is nudging against some natural barrier, some more fundamental need which can be satisfied. These needs may trend, but they are temporarily almost fixed. This happens even in relatively small markets. The number of central heating installations cannot exceed the number of houses; we are unlikely to sell more car insurances than there are cars. These limits hardly apply to most brands. Families may well chose car models in such a way that a particular make doubles its sales in a year. It is unlikely that two-car families will all in a year become four-car families.

4.7 Markets may also differ by the sorts of consumers in them. In groceries, for example, different buyers have different strategies for satisfying their needs in the market. Some are brand loyal; this does not mean they necessarily always buy this brand, but it satisfies a large proportion of their needs. This is particularly likely for the brand leader and for stores' own brands. Others have a repertoire of acceptable brands, and circulate among them; this may be because they like variety, or because they are shopping for different consumers and occasions. Another group of consumers tend to buy whatever is on offer, at a special price.

These differences affect the way advertising works. If the manufacturer advertises a promotion, a lot of promotion buyers will stock up and sales rise. Normal brand advertising may cause a blip in repertoire buying but has apparently less effect on its loyalists – defence and reassurance are more likely to matter there. If we were to segment types of market, this sort of behavioural analysis could be important.

It goes without saying that not only the type but the effectiveness of advertising varies. We should not assume that the same amount spent on one campaign produces the same behavioural effects as another campaign – allowance for very effective and for ineffective advertising is necessary.

5. *A new question*

This paper continues by replacing the question, 'Does advertising affect market size?' by one more specific, *'How far, if at all, does the advertising effect on size move up the hierarchy?'*

This changes the nature of our investigation. We do not look only at a stated market at a particular level – all foods with high sugar content, for instance. Incidentally we will certainly not start by looking at just two variables, the size of the total market and advertising of the brands in it.

Instead we start at the other end, with the brands or even with their units. We construct a hierarchy of the sort discussed above. We then look for advertising effects – among those due to other causes – at the lower levels. The list of possible other reasons for market size change should of course be specific to the sort of products we are examining. The potential list is a long one. It usually starts with product innovation and changes in quality, price (including taxation factors if relevant), value for money, disposable income, distribution and the types of manufacturer and retailer entering or leaving the market, demographic and social changes, patterns of consumption (in or out of home for example), general and specific economic factors.

If we do not find advertising effects at a low level, having made proper allowance for such factors, they are unlikely to be detectable higher up. If we do find them, we continue the search at the next level. Thus we have a technique to answer the original question, and one which also shows us how the market 'works', in a way which is of interest to the manufacturers concerned.

We should be ready to see a wide variety of results. A few hypotheses follow.

- No advertising effect, even on the unit or brand advertised.
- Advertising for one unit (a light variety, a new flavour) affects its volume, but even at the brand level there is no effect. The innovation has only cannibalised other units. Manufacturers will recognise this distressing result.
- Advertising for each brand more or less cancels out. If a major brand were to stop advertising, its sales would start to decline, but the fight for brand share has reached stalemate. After a few months of trench warfare, the conclusion is not to pull back, simply because you are not advancing.
- Advertising grows the major brand at the expense of smaller brands, but the sector is stationary.
- Brand advertising increases the sector size, but not the category.

Such a list could be continued. Examples are given in the Appendix, where the papers in *Advertising Works* are analysed and other material is summarised.

6. Who asks the question?

The interests of the people who ask the question are not all the same.

The *manufacturer* of a product is likely to define 'market' by those brands he perceives as close competition, usually rather narrowly. He may well wonder whether his advertising is not only growing his slice of sales, but also the size of the cake. He usually defines 'cake' as some market well down the hierarchy. If he causes the cake to grow, there are two separate justifications for his advertising budget. He may choose to make this double case for investment – and there are also implications for his copy.

One well-known way of describing a brand position in advertising is that it 'offers a market benefit', that is, its claim is not unique. It would not be surprising if this advertising also sold other brands. On the other hand, some advertising is poorly 'branded'; that is, shoppers cannot recall which brand was advertised and may be influenced to buy another.

Lobbyists may want a particular market to decline in sales. Their concerns usually operate very high in the hierarchy, at super-category level. If advertising helps to maintain market size, and they are able to stop or reduce this advertising, then they move closer to their objective. These people want to believe that advertising affects market size, since this offers them a way to reach their target. The market they are talking about is often hardly considered by the manufacturers supplying it: few drinks marketers think about 'all alcoholic drinks' except as a general indicator of trend, and certainly no brand advertiser thinks of this as his market. He thinks of white spirits, draught ale, premium lager and so on.

The manufacturer has to respond to this threat from his critics. It is then in his interest to show advertising does not affect this market size.

It can therefore look as though *some* manufacturers want to give one answer to the question, 'Yes, I have succeeded in growing the market', while *others* say the opposite, 'No, I do not affect market size'. There is no conflict here when they are operating in different markets. Even within the same broad types of product it may be perfectly logical to say, 'I have

increased the real ale market, but total beer is stationary'. It is not a contradiction to say, 'Sometimes it does, sometimes it doesn't' – each case must be looked at individually.

Market researchers tend to follow categories defined in standard industry reports: Nielsen, Superpanel, IRI, Register-MEAL and so on. These major sources consult with manufacturers, of course, about the typology, but in the end have to make a practical decision. They cannot multiply categories indefinitely. Other researchers follow their lead simply for convenience: the data is available, trends can be calculated and so on. Some groups contain products which are not clearly substitutable, or less so than with products outside the group. 'Stock cubes and vegetable extracts' includes both Knorr cubes and Marmite in pots. 'Frozen vegetables' includes both frozen peas and potato chips, while peas might be exchanged for some fresh vegetable, and frozen chips for some other form of potato (mashed, baked, roast) or some other accompaniment (rice, pasta).

Retailers think of the arrangement of the store, while items which the consumer thinks of as alternatives or complements may not be on a shelf together (my local Sainsbury's separates oil and vinegar).

Finally, and this of course is in the wrong place, what of the views of the *consumer*? These will change not only between people, but for the same shopper with different family members to cater for, and for the same person on different occasions. Market structure modelling and panel data show that categories are indeed rarely watertight, as we tried to demonstrate with examples in Section 3.

7. *The commonsense answer*

To some people, the answer to the question is easily given by common sense, and it is 'Yes'. They reach this view on several grounds.

They see heavy weights of advertising for products whose sales are growing, and they assume, not unreasonably, that the two are connected. They may see this as the purpose of the manufacturers' advertising, even when this is not the case. They may also see advertising itself as a powerful force dictating patterns of consumer behaviour, holding up targets at which the consumer unthinkingly aims. If advertising is expected to persuade someone to buy a particular brand, why should it not also effect her decision about what type of product she spends her money on?

If the answer to the question in the title were 'No', this seems to make nonsense of generic campaigns, aimed for example at increasing the consumption of fish or meat. Why should not brand advertising have similar effects on markets?

Public service campaigns which seek to influence rather more profound aspects of behaviour such as buying fire alarms, or not drinking and driving, are not generic in the same sense, but few doubt they can be effective.

All the statements above are more hypotheses than arguments. They need to be set against other statements or alternative hypotheses. Some categories which are heavily advertised are *not* growing. Manufacturers use advertising primarily for defence and attack against competing brands, and only exceptionally cooperate to increase category size by communications. Advertising is, to the chagrin of many advertisers, rather a weak force whose effects are often hard to see and nearly always a minor cause of even brand sales changes. The consumer is not a sheep driven willy-nilly to the abattoir, but fortunately cussed and independent; shopping is democratic, not mass gymnastics. Choosing between products as you stand before a single shelf in a supermarket is a different process from deciding which aisle to go down. The intended effect of generic advertising, when it exists, tells us nothing about the unintended effects of brand advertising.

The same critics also see that advertising for brands in market X represent X itself as desirable and acceptable. It creates pre-dispositions about X. It could be an influential symbol of society's approval or at least tolerance of X. If they believe X should be reduced, then it follows that this advocacy must be stopped: if not the main cause of X, it must make a major contribution to its continued existence.

The weakness in this case is that it does not compare advertising with other reasons for the existence of X. Is 'desirable, acceptable and approved' any higher than it would be without advertising? The argument does not bring in specific evidence for the effect of advertising.

Other reasons why X exists include the following. Characteristics of the product itself must come first – these are always the main reason people buy it. The idea that advertising forces people to buy things they do not want has been exploded long ago. Advertising rarely gives new information about old markets, since shoppers have their own experience to go on. New entrants to the market get their views from many other sources. Parents, peer groups, the media, distribution and display of the products – these have far more influence than advertising, about which today's consumers are rather cynical. They can recognise self interest and the salesman at 100 paces.

Of course the argument from commonsense is appealing. There must be some effects, in some markets, at some level. But plausibility is not enough; stronger arguments exist about other factors. For example, Aitken (1989) suggests that increasing age and peer group behaviour are stronger influences than drink advertising on under-age drinking. His (qualitative research) paper is a shining exception in discussing other causes. This argument is almost never raised, let alone quantified (his is not), or tested against other hypotheses. That can be done only by some form of econometrics, where actual data about market size and about advertising *and other factors* are analysed. The subject is continued later.

8. *What sort of answer do we expect?*

In a draft for this paper, Paul Feldwick described a courtroom scene:

Witness:	Market size effects exist, but they are . . .
Counsel (interrupting):	So you admit market size effects exist?
Witness:	Yes, but the point is . . .
Counsel:	Do they exist or don't they?
Witness:	Well, yes, but . . .
Counsel (triumphantly):	I don't think we need detain you any further. We have a clear admission that advertising affects market size.

Many people look for a black or white answer. If advertising does affect market size sometimes, then it does so always. Or, it never does. Much that has been written takes up one or the other of these extreme views.

This is largely because the contentious markets – alcohol and tobacco especially – are subjects of debate in which the political and adversarial mode dominates, rather than scientific enquiry. Issues of public policy are involved: fiscal, legal and social concerns. This implies advocacy and simplified positions.

The overwhelming majority of published work – and some unpublished – is on three or four markets only of this type. They are very large and in several ways untypical. One is that they have become politicised. The view that market size effects are minimal on such markets is supported by a considerable body of work. This paper does not concentrate on these markets, but attempts to consider the question more generally and without any previously prepared position. The fact that many believe such markets are not affected, while others believe that they are, goes mostly to show that we are in sore need of agreed definitions, common analysis techniques

and sober, reasoned discussion. The disputations have not helped us with any general answers to the old question, let alone encouraged us to ask the new question. Perhaps light will be thrown on such controversies by the dispassionate approach we try to take.

Given the variety of consumer options, the differing competitiveness of markets and the difficulty of defining 'market', we do not expect a general finding. This paper does not conclude, 'Yes, advertising always affects market size.' Nor does it say, 'Advertising never affects market size.'

That raises deeper questions: What does the answer depend on? Are there conditions under which advertising does grow a market? Under what other conditions is change in market size independent of brand advertising? Above all, in a particular case, how far up the hierarchy does the effect go? These questions are raised here and some hypotheses are suggested; no definitive answers are attempted and anything over-simple is avoided.

Another sort of answer is to help the analyst who has the job of investigating a particular market. What is best practice in doing this job? What are the traps to avoid, the recommended ways to answer the question?

9. *Statistics*

Inevitably, the question is in the 'lies, damned lies . . .' battlefield. We are using a set of explainers, advertising being one, to give us understanding about a time series (the size of the market in successive periods) or contingency table (averages for different markets and different amounts of advertising). We cannot measure 'increase' or the lack of it, or evaluate proposed and simultaneous causes, in any other way. This branch of statistics requires regression or correlation analyses. We should be inferring an effect from the difference between what happened, and what we calculate would have happened if we had not advertised. Probably more incomplete and misleading arguments are put forward in the social sciences as a result of association than in any other.

Take the simplest case. A market increased in size from one year to the next by Y%. The amount of advertising at this time was X (or, we might look at the change in X). The claim is made that X caused Y.

This could well be true, but there are at least two alternatives. First, some of the manufacturers in this market forecast growth because of their product improvements. They chose to spend X in order to announce these improvements – but suppose the creative work was actually ineffective and growth came about due solely to the improvements. The fact is that Y caused X. Chickens produce eggs, but eggs also produce chickens.

The second possibility is again that the advertising was ineffective and that growth was due to an increasing standard of living (here is one of the 'other causes' mentioned above). The manufacturers spent X simply because that was what they spent before (quite a common way of setting the budget). The growth of Y was nothing to do with the advertising.

Another example brings in the point made earlier about sector definition. Suppose two sectors, A and B, continue to spend the same amounts. The first is doing so because it expects growth – justifiably so and at the expense of B. The second is advertising in defence, trying to reduce its losses to A, and having some success, but not stopping all its decline. In

both cases, taking the individual sectors, we could conclude that advertising *is* affecting change in size. Now consider the total, A+B. This is static, and we could conclude advertising has no effect on the category.

These examples are enough to demonstrate that we will have to show in some other way that it is more likely than not that X caused Y, or that an increase in X caused Y – the fact that they happened together is not enough.

If the point is not clear, take a more familiar example of the same fallacy. Suppose we have, for a single brand, its volume sales over successive weeks and its advertising weight each week. Did advertising affect sales? The naive way to answer the question would be to compare sales in weeks when we advertised against weeks when we did not. There could be circumstances in which this was reasonable (direct response, or if everything else were equal and response was short term only), but this is not the normal case. Perhaps we chose to advertise at seasonal peaks for the market (this is very common) and we created simultaneity ourselves. At the other extreme, we might be trying to even out demand, and advertised off-peak, so the association turns out to be negative. These considerations are before we have begun to think about effects of price, competition and other factors. Analysts of brand dynamics automatically think in this way, but the ideas have sometimes not been transferred to the market size problem.

Changes in market size are often long term trends, especially for markets at the top of the hierarchy. They are due to a combination of factors, each of which influences the others. Editorial comment in media can affect word of mouth which affects behaviour which is picked up in the media and so on. Once a trend develops, band wagon effects can be larger than the original causes. To decide which was the butterfly's wing that caused the climate change is near-impossible. When all the factors are highly correlated, we do not disentangle easily in what order causation took place.

Because these causes are so varied and so market-specific, cross-section analyses have similar problems. In the Appendix there are comments on this difficulty for specific markets.

The problems get worse as we ascend the hierarchy, and for the same reason as met in the analysis of brand share. It is relatively easy to explain most of the short term variation in a brand's share when it is sensitive to price, promotions, distribution, advertising and competitors' activities – and all of these have varied significantly. The work is hard when the brand is stable, variations are small and tend to cancel each other out and the major effects are long term. Hence the notorious 'longer and broader effects' problem which is bedevilling brand analysts.

Large markets are like the stable brands which show little variation. The major movements are very rarely sharp peaks and troughs, they are usually gentle trends for which there exist a variety of explanations. Meanwhile, lower down the segmentation, there is more movement and more chance of explaining satisfactorily what is going on.

For a discussion of some statistical and other problems, see Ambler (1996), Calfee & Scheraga (1994), Hagan (1993) and Smart (1988).

APPENDICES

I – Learning from *Advertising Works* papers

II – Learning from econometrician interviews

III – Learning from other publications

I – LEARNING FROM *ADVERTISING WORKS* PAPERS

The preliminary work for this section was carried out by two people, who separately analysed the 156 papers in Volumes 1 to 8 (1981 to 1994) of *Advertising Works*. We are grateful to Colin McDonald and Vivian Braun.

An advantage of this section is that the evidence is open to all, since the papers give quite full explanations and corroboration of the claims made about advertising effectiveness.

These papers mostly reported the effects of brand advertising – one count suggests that 133 of them were brand oriented and that the results were judged solely on volume or on market share. We cannot use for our present purpose those about generic advertising (bread, Volume 2, paper 18; smoke alarms, 8/5 and milk, 8/19). The rest are about recruitment, charities, health education and so on, which are not relevant to this enquiry (we recognise that a recruitment advertisement is a communication about the employer, and so is branding in that sense, but ideas of share and of hierarchy level are inappropriate).

This sample of case histories cannot be regarded as typical – they are particularly successful examples of advertising. In defining 'success' the authors were free to choose whether or not to include market size effects. In addition, this is not an examination of the effects of all the brand campaigns in a market, only of individual ones. The first point means we are usually more likely see market effects, the second that we are less likely.

The method used here is to see whether any effects on a market at any level were looked for and reported (or strongly implied). Ideally, if an effect was reported at the lowest level, we would like to know whether one was found at the level above, and so on. Not everyone would make the same judgement – our two experts did not produce identical lists, though they did agree in the majority of cases. This report deliberately errs on the generous

side, and includes all cases where any indication of a market size effect is included.

The relative sizes of the totals of the two sorts of case history are revealing:

> In 110 of 133 cases where brand advertising was outstandingly successful, possible market size effects were not worth mentioning, though they would very likely have been recorded if noted.
>
> There remain 23 cases where market size effects were noted or implied; the question is then whether these were at a low level, for example in a sub-sector, or whether they extended higher up the hierarchy.

Thus less than 20% of these cases indicate any kind of market size effect. Since these are unusually successful case histories, we can conclude that affecting market size will generally be significant in only a minority of cases.

The next analysis difficulty here is in defining in a consistent way the levels at which an effect may have taken place, since the definitions, as often pointed out, are subjective. Some examples from the papers, of the sorts of hierarchy which might be used, illustrate this point. Four of these have only three levels, four have six.

CATEGORY	*Yellow Fats*	*Lights*	*Spirits*	*Canned food*
SECTOR	Margarine	Matches	Ready mixed cocktails	Canned meatballs
BRAND	Krona	Swan Vestas	Shakers cocktails	Campbell's

SUPER-CATEGORY	Domestic garden tools	Fish	Wall Coverings	Medicines
CATEGORY	Domestic lawnmowers	Processed fish	Paint	Health products
SECTOR	Light mains electric	Frozen fish in batter	Emulsions	Vitamins
SUB-SECTOR	Cylinder	Oven Crispy Cod Steaks	Natural white emulsions	Multivitamins
BRAND	Qualcast	Birds Eye	Dulux	Sanatogen
UNIT	Concorde	Oven Crispy Cod Steaks	Natural Whites	Multivitamins

We clearly cannot allot names or level numbers which mean the same thing every time. Taxonomy is particularly difficult when the claim is that the brand 'created a segment' so the number of levels is increased. All we can do is record or suggest the names to be used for the levels in each case.

We are interested in the position of the relevant brand in its market, and in the sort of market, as well as in the level at which a market size effect might be seen. To investigate these we need to go into some detail. The very small sample, and the way it has been selected, mean that no more than a working hypothesis is expected as a result.

In the following summaries, the reference is first to the volume number of *Advertising Works*, second to the number of the paper in that volume. The order is by volume, then paper.

Krona margarine 1/1

A launch to exploit the gap in price between margarine and butter, to attract butter users into trading down.

Share in the margarine sector was grown, and butter declined, so the yellow fats category was not affected.

Swan Vesta Matches 1/9

The brand already had about a half share of the matches sector; which is in the lights category. The category includes lighters. The objectives were both to gain share in the sector and to grow it.

Share was grown and the lights category was stable.

Sanatogen Multivitamins 1/12

These might be classified as in the multivitamins sector of the vitamins category, but the market was defined as all vitamins. There is presumably a super-category of health products, of which vitamins are part, but this is not discussed in the paper and is unlikely to be much affected if at all. It was a campaign objective to grow this category, in which Sanatogen was market leader.

The total category was increased, by implication because the multivitamins sector grew without taking from other sectors.

Qualcast Concorde lawnmower 2/3

The category is lawnmowers, of which a sector is light mains electric domestic mowers (between these, more levels could easily be introduced). Rotary and cylinder types form the sub-sectors. The cylinder segment was decreasing in size; within this the Qualcast brand share was increasing.

Over the two years reported the category grew 21% and 12% – with advertising increases from other brands. The sector grew in the first year 21% and the cylinder sub-sector 45%.

Hence there was certainly growth in the sub-sector, sector and category, but it is not easy to attribute all of this to Qualcast advertising. The early replacement of old mowers (since this must be the mechanics of most of the growth) had other causes, including competitors' marketing activities, but it is arguable that some of these were stimulated by the brand's initiative.

Birds Eye Oven Crispy Cod Steaks 2/7

The name itself tells the story. The brand is part of the crispy cod steaks sub-sector, in the frozen fish in batter sector, part of the processed fish category. 'Oven preparation' was at the time a new market, as an alternative to frying. The levels above this are not hypothesised, but clearly there could be several before we get to 'all food'.

The total crispy cod steaks market grew 30% and there was a spillover effect on the frying product. The sector grew also, and there is probably an effect on the category.

Frish lavatory cleaner 2/10

The brand is in the lavatory cleaners sector of the liquid household cleaning products category, which is in the household cleaning products super-category.

The sector was increased 40% due to advertising overcoming previously negative attitudes. It is claimed that the category and super-category were both increased.

Kellogg's Corn Flakes 2/14

At this time the brand had a 20% share of the ready-to-eat cereals super-category. There are competitive Corn Flakes making up a sector. There is a category of cereals eaten with cold, as opposed to hot, milk. Above the super-category we could hypothesise combinations of other breakfast foods, or of snacks eaten in the home.

Initial analysis showed that the campaign (on milk bottles) increased brand sales and also raised all ready-to-eat cereals consumption, but almost entirely because of its own growth, not by stimulating sales of other cereals. So there was a market effect, but hardly by growing sales of other brands. Later, an effect on the sector was measured; that is, Own Label Corn Flakes also benefited.

Dulux Natural Whites 3/1

The sector is natural white emulsions. There are obvious levels between this and the category of all emulsions.

As well as share of the sector, sector size was grown. Category size was not affected.

Viennetta ice cream dessert 3/2

This launch can be thought of as into the ½ litre family pack size sub-sector, and also of the premium adult ice cream sector. Both are in a dairy products super-category, but could also be thought of as in a desserts category.

Advertising had a strong effect on the sub-sector and sector size. Dairy product sales were also increased, but not total desserts.

Shakers Cocktails 3/3

The brand was part of a new sector of ready-mixed cocktails, in the spirits category. Again, other levels between these might be introduced.

The brand grew and so did the sector. Category size was not affected.

Hellman's Mayonnaise 3/6

The complication here is that at the time UK shoppers thought of mayonnaise exclusively as a dressing for salads, or a salad cream. It was therefore in a sub-sector, salad cream, in a sector called salad dressings. Using mayonnaise as a condiment in snacks and sandwiches, or as an ingredient, was little known. This was a potential new sector,

and Hellman's was expected to sell in both. Or, we might say that a definition of a sector for salad plus other uses was created.

In the event, the new sector grew strongly. So did Hellman's volume and its share in it. That market size was certainly affected.

Golden Wonder Pots 4/6

The sector is defined as instant hot snacks (where the brand had 65% share) in the hot snacks category. Levels above this can easily be imagined.

The advertising significantly grew this sector. The category was not affected.

Alphabites potato products 4/16

The brand is in the frozen potato products sector, part of the frozen vegetables and potatoes category.

Advertising increased brand sales and also brought new users to the sector. No impact on the category was identified, though it is thought likely.

Country Manor Perry 4/17

The existence of high quality perry as an alternative to wine was virtually nil before this introduction. It can be thought of a sector in the wine category, which itself can easily be sub-divided. Should we think of British wine, for instance?

Both the brand and the perry sector grew, but it is unlikely that the category was affected.

Cymalon 4/19

This was the first structured treatment for cystitis which could be self-selected, rather than under the supervision of a pharmacist.

As such, it could be said to have created a sub-sector.

Quaker Harvest Chewy Bars 5/4

The chewy bar sub-sector contained five brands, and was in the chocolate sector of the confectionery category.

The advertising increased the sub-sector, not the sector.

Listerine Mouthwash 5/7

The brand is in the mouthwash sector of the mouthcare category, including for example toothpaste.

Brand volume grew and so did the sector, without change to the category.

Campbell's canned Meatballs 5/8

The sector of canned meatballs might be seen in the canned food category or as a processed meat product.

The sector was strongly affected but neither category was.

501 Levi jeans 5/10

The brand is in the jeans sector, which may be seen in the trousers category.

A downturn in the sector was turned round, without effect on the category.

Optrex eyecare products 7/8

This was almost a generic campaign, given that Optrex share of the eyecare category was previously very high at 84%. Again, there is presumably a super-category of health products.

Share grew to 91% of an enlarged category.

Limelite limescale remover 7/17

This can be thought of as in the hard surface limescale remover segment of the limescale remover sector, which includes scrubbing materials. It can also be called a liquid household cleaning product, part of the household cleaning product super-category.

In the sector, share grew from 4 to 37%, while the sector grew 144%. It is claimed that the super-category was affected.

Roses 8/4

The brand was a poor second in the economy sector of the chocolate assortments category; the sector is dominated by a sub-sector called twistwraps.

The results of repositioning – between the formal, special gift and family usage, as an informal 'thank-you' – was to grow the sub-sector, from the mid 30s to over 60% of the assortments category, as well as gaining brand leadership from Quality Street in the sub-sector

Peperami meat snacks 8/11

This is defined as in the meat snack sector. The sector could be seen as in the snack category, or as a processed meat.

There was a large effect on the brand share and also on the sector. Neither of the possible categories was affected.

We have already suggested that affecting market size is exceptional. Now we ask what this sample tells us about the other possible conclusions.

The only way we can describe the highest level at which a market was affected, in the sense that other brands also grew, is by the actual description we have chosen. The cases are now listed again, arranged in a purely subjective order. This is, the higher up this list, the higher up the hierarchy the advertising effect was felt. In this list, either a next level above, which was not affected, is named, or we suggest an existing market to which the new one is added.

lawn mowers, not garden tools long term (Qualcast)

lavatory cleaners added to household cleaning products (Frish lavatory cleaner)

twist wraps, not all chocolate assortments (Roses)

jeans, not trousers (Levi's)

eyecare products added to health products (Optrex)

non-pharmacist treatment for cystitis added to the pharmacy sector (Cymalon)

mouthwash added to mouthcare (Listerine)

vitamins, not health products (Sanatogen)

margarines, not yellow fats (Krona)

natural white emulsions, not all emulsions (Dulux Natural Whites)

meat snacks not snacks (Peperami)

matches, not lights (Swan Vestas)

chewy bars, not chocolate confectionery (Quaker Harvest)

other uses for mayonnaise added to condiments (Hellman's Mayonnaise)

limescale remover added to household cleaning products (Limelite)

frozen potato products added to frozen vegetables (Alphabites)

processed fish, not fish (Birds Eye Oven Crispy Cod Steaks)

premium adult ice cream, not desserts (Viennetta ice cream dessert)

instant hot snacks, not hot snacks (Golden Wonder)

canned meatballs, not canned food (Campbell's)

ready-mixed cocktails, not spirits (Shakers cocktails)

corn flakes, not ready to eat cereals with cold milk (Kelloggs Corn Flakes)

perry added to British wine (Country Manor Perry)

The majority of these are packaged goods, with a sprinkling of other categories. There is a bias in the sample (large advertising expenditures, especially for the 1980s) so that too much should not be made of this.

At the highest level, the markets grown were margarines, vitamins, mouthwash, eyecare, jeans, lavatory cleaners, the twistwraps sector of the chocolate assortments category and lawnmowers. In all these cases a large

brand or market leader has created the increase (of course these are the brands we are likely to find here). Often the brand benefited from a product innovation or explanation of the category benefit or both – and has taken the market with it.

The two significant points are:

> In hardly any case are we very high up the hierarchy. There is no question of total foods, health care, clothes, household cleaners or confectionery totals being affected.
>
> In many cases it is product improvement and sector creation which is likely to be the main cause of growth, with advertising accelerating the effect, rather than advertising on its own growing the market.

II – LEARNING FROM ECONOMETRICIAN INTERVIEWS

Introduction

This section reports interviews carried out by Vivian Braun in the summer of 1996. The respondents were seven econometricians or analysts currently working in the advertising business, with advertising agencies or at consultancies. Six of them concentrated on the effects of brand advertising – Paul Baker (OHAL), Neil Barnard (South Bank University), Keith Blakemore (The Henley Centre), Simon Broadbent (The Brand Consultancy), Louise Cook (then at BBD DDB Needham) and Paul Dyson (Millward Brown).

All the interviews were carried out on the understanding that individual respondents, clients and brands would not be identified. The report written by Vivian Braun has therefore been edited to respect this confidence, though the result is a stark contrast between the clear stories of the previous section and the muffled versions here.

With such a small sample of people – though at least 50 examples were mentioned – and under these conditions, this summary can give only an impression of analysts' views generally. It certainly cannot say under exactly what conditions the new question, for a particular level in the hierarchy, will be answered yes or no.

Roy Cromb of MMD was also interviewed; since this company specialises in estimating the effects of generic advertising, the conclusions are kept separate here, but are again mostly not identified with particular markets.

We are grateful to these experts for giving their time, and sharing with us their experience. The references section has also benefited from their suggestions.

Brand advertising

Analyses are done for clients who give priority in their briefs to market share as the dependent variable. Most advertisers, in most cases, do not take into account in their planning the possible effects of their communications on the size of the market so it is seldom studied. Hence most reports – and for some analysts all of them – are only about advertising effects on market share.

Another reason why effects on market size are exceptions is that the analysts recognise the time-consuming and difficult nature of this work. The data required is different from the data they usually handle. It includes economic and social variables whose correlations give rise to problems in interpretation. Cause and effect are particularly hard to disentangle.

In a small proportion of analyses, the effect of advertising on market size is specifically studied. Clear effects have been seen in some cases but the results are very varied. They seem to depend on the definition of 'market', its age and other characteristics, on the relative size of the advertiser and on the nature of the copy.

Examples of the factors affecting market size include economic trends – the relevant population size, expendable income in real terms and price changes. Changes in the climate of opinion and consumer interests were frequently mentioned. These may be affected by brand advertising, but the primary causes were thought to be the presence of the products concerned, the media and also word of mouth, the example of parents, colleagues and so on. To extract advertising effects from these much larger factors is thought to be especially hard. To include all the relevant factors about markets, and to identify the relative importance of each of them is thought to be a difficult job.

The analysts recognise the task of explaining the effect of generic advertising on market size, and generally think of it as simply a different definition of 'brand' and 'competitors', but with additional explainers.

Examples quoted included beef (in the US, compared with other meats) and eggs (compared with other convenience foods).

When markets *were* studied, it was said that total advertising was often not included at all in the factors used to explain changes in size – these were thought to be the result of much deeper movements.

When market size was affected by brand advertising, this was usually not an economic outcome, or even planned, but just a beneficial side effect.

The problems already mentioned arise in work on market share too, but to a smaller extent. Usually the majority of variation in brand market share can be explained by the obvious causative factors – product changes, price relative to competitors, seasonality affecting market share as well as market size, marketing activity and promotions of the brand and competitors – and the brand's and competitors' advertising.

The analysts commented on a regularity observed in the growth of a new market, that it was due partly to the advertising of the brand or brands in at the beginning. As more manufacturers entered the market and the first entrants' shares declined, the role of advertising shifted more to defence than to explanation of the function of products in the new market. The influence of advertising is easier to model in a stable market, when share is the objective, than when increasing distribution is a major factor and trial sales are the majority.

The importance of the definition of 'market' was frequently mentioned. Advertising may affect positively one sector of a category, which takes from another sector. Thus it causes change in one market, not in the other.

Generalising about such cases is only just possible and is now attempted with diffidence.

> Advertising by a brand with a large share of the market, or the market leader, seems more likely to affect a market. If the same brand share is spread over several different advertised brands it is less likely that advertising for any one of them affects total size.

If the products in the market are homogenous, it is less likely total size is affected, but if the products in the market are very different (appealing to a wide range of consumers), and there are few direct competitors, total size may grow.

If there is particularly intense competition between the brands, it is less likely total size is affected.

If the market has some natural restriction, it is less likely total size is affected.

If advertisers reduce total spend in a declining market, this decline may be faster.

If the copy of the advertising concentrates on the brand's product differences from competitors, it is less likely total size is affected.

If the advertising supports a promotion it is less likely to affect market size.

If a market is sensitive to advertising it is likely it is also sensitive to other factors.

Markets mentioned by the analysts as included in their work include alcoholic drinks, baked beans, capital goods, confectionery, credit cards, hair colourants, ketchup, margarine, milk, newspapers, paint, savings options and other financial services, seafish and soft drinks.

Generic advertising

Work has been published for the markets mentioned below, but for others the results are confidential. In general, the advertising effects found were small; they were still clear and of course could still be economic.

In the 1980s the Hotel and Catering Industry Training Board bought studies on tourist accommodation, eating out, beer, spirits, wine and cider. For all of these except beer generic advertising effects on market size were found. In other work, effects on beer have been found.

The National Dairy Council and other food clients have commissioned work on basic products like milk, cheese, fish and meat. For meat, the effects were different at the species or sector level (lamb, pork and beef) from at the category level (all red meat).

Positive effects have also been found in other markets such as carpets and financial services.

It is essential in this work to include other factors as explainers, choosing the right variables among the economic indicators, price and other specific data. Awareness and attitude data help to establish that the advertising effects suggested by the data are in fact real. Public attitudes (about health, for example) are also important explainers of changes in size.

Effects are higher for new products and when the advertising is linked with other marketing activities – promotions, PR and so on.

III – LEARNING FROM OTHER PUBLICATIONS

The literature on this subject is vast. It has attracted many academics as well as some practitioners. No attempt is made here to review it all. Instead, three sorts of summary plus comment are attempted. The first is about a recent book which deals mainly with alcohol and tobacco. The second part is about two papers which analyse some UK markets, mainly groceries. The third recommends some further papers and gives references for work mentioned earlier.

The classic controversies

Advertising and Markets, edited by J.C.Luik and M.J.Waterson, NTC Publications Ltd., 1996, offers an easy way into the subject. It reprints 18 papers, which appeared first between 1982 and 1996, from the *International Journal of Advertising*, a refereed journal edited by Professor Ken Simmonds at the London Business School.

Twelve of the papers come from university authors, four from consultants or other institutes and two have mixed parentage. There are also introductions by each of the editors, who claim reasonably that the book contains the seminal papers on the subject. In addition, the bibliographies to the papers contain a formidable reading list of well over 400 references (including repetitions). In comparison with this Niagara of debate, the book's 337 pages look small.

The book is dominated by the tobacco and alcohol controversies. This makes it a one-sided source on the more general questions raised in this paper. I summarise it here, without mentioning the issues of public policy raised, by quoting from the editors' own conclusions:

> ". . . there is no objective and substantial evidence that tobacco advertising leads to juvenile smoking initiation."

> ". . . it would be incoherent to claim that an advertising ban would either stop juvenile smoking or reduce overall consumption – something that the empirical evidence of the failure of such bans makes abundantly clear."

– Luik

> ". . . the considerable amount of empirical evidence now available . . . suggests that brand advertising expenditures, in aggregate, are most unlikely to have any impact on the size of mature consumer markets . . ."

> ". . . policies which aim to reduce smoking or drinking prevalence by instituting advertising bans are therefore unlikely to have any impact."

– Waterson

Two comments have to be made on this collection, viewed as examples of the analyses of the effect of advertising on market size: (a) the difficulty of definition of the terms, and (b) the absence of 'other factors', or their perfunctory appearance.

How should 'advertising' and 'consumption' be measured? This question threatens to get into technical questions beyond the scope of this paper, and the discussion will be kept as elementary as possible.

At its simplest, advertising can appear as expenditure per period, which means that no allowance is made for any decay in its effects. In other cases, some lag is allowed for. The share of relevant advertising to all advertising, or the ratio of advertising to the market turnover, may be used. The source of the data itself is sometimes questionable, for example IRS data in the US, or expenditure rather than the amount of exposure bought. Consumption is sometimes used as a simple number; in some a trend is removed (without allowing for the possible effect of advertising on this trend), in others it is the change in consumption which is analysed.

Sometimes only these two variables are considered. Sometimes price, or 'real' price is added, and disposable income is allowed for. The changing

age profile of the population may be taken into account. Seasonality may matter when monthly or quarterly data is used. Sometimes other communications are allowed for – the Surgeon General's warning in the US, or warnings on packs of cigarettes – or restrictions on the media used.

Enough has probably been said for the reader to see that the caution suggested above about 'statistics' was not exaggerated.

Another recommended review of the subject, with a wider viewpoint, is *Market response models: econometric and time series analysis* (1989), by Dominique M. Hanssens, Leonard J. Parsons and Randall L. Schultz, Kluwer Academic Publishers, Netherlands.

Finally, there is a relevant comment about *generic* advertising for tobacco products in the UK. This was made by Martyn Duffy, *An Econometric Study of Advertising and Cigarette Demand in the UK* (International Journal of Advertising, Volume 15, 1996). He concludes that 'the general effect, if one exists, of brand advertisements which carry prominent health warnings may have been to *restrain* aggregate demand for cigarettes. In other words, cigarette advertisements may paradoxically *reinforce* and disseminate the health education message through their warnings content . . .' I would prefer to say that this may be an example of a generic campaign doing exactly what it was intended to do (reduce the total volume), while brand advertising also does its own job – affect shares.

Henry and Yasin

This section comments on two papers which have much in common. The first is by a much respected commentator, Harry Henry: *Does advertising affect total market size?* (Admap, January 1996). This updates and expands an earlier paper with the same title in the same journal in November, 1984. Harry Henry kindly shared with us his original data, which we would have liked to have done more with than we were able to. We echo Henry's own comment: 'It would have been tempting, having regard to the fascinating shapes of some of the curves, to treat each product category as a case history in its own right and to explore it in detail. But this was hardly feasible . . .'

As just one example, consider the data for frozen vegetables. Here 'volume' is by weight, 'value' and adspend are at 1990 consumer prices, 'price' is in pence per Kg., adspend is in £m.

Year	*Volume*	*Value*	*Price*	*Adspend*
1985	485	644	133	4,463
1986	511	629	123	3,339
1987	549	631	115	4,502
1988	534	594	111	5,960
1989	550	599	109	6,232
1990	509	592	116	5,847
1991	582	632	109	8,919
1992	582	611	105	9,435
1993	596	616	103	12,690
1994	607	613	101	10,302

This is an advertised market which grew over the decade, by 25%. In value the market fell slightly, but changes in value might be argued to be associated with advertising. Are these associations enough to answer 'Yes' to the question? Are we certain that the association can be read only one way, or was advertising a response by manufacturers to increased competition for a growing market?

Price fell faster than most consumer prices (a benefit of a competitive market?), and by a little more than 25%, so the value of the market dropped in real terms. Did the price drop affect the volume increase? In fact we can regress volume on both price and adspend and explain 90% of the variation in sales, with the price effect being much clearer. Probably the price change did help, so did advertising – so did improvements in variety, distribution and the use of other marketing tools.

The more we look into the detail of any one case, the more questions it raises.

The second paper is by a practitioner, Jo Yasin, *The effects of advertising on fast-moving consumer goods* (International Journal of Advertising, 1995, and reprinted in Advertising and Markets).

Henry reports on ten food categories, nine of which were also looked at in the 1984 paper which covered 16 foods in total. The method is essentially an inspection of two time series: sales by volume (value was also looked at, as we saw above) and of advertising expenditure at constant prices. Yasin took 42 fast-moving consumer goods UK markets (much wider than foods) and, among other variables, compared their average growth rates for 1987 to 1993 with their ratios of advertising spend to sales (averaged over 1988 to 1993). He looked at this cross-section for an association between the sales growth and advertising-to-sales ratio.

Both papers cover frequently-bought consumer goods in the UK, both cover a good number of years, and both reach the same conclusion. Henry confirms his 1984 summary, 'However useful advertising may be as a tool of competition between brands, in mature markets such as (these) it did not over the years affect market size in any general way or to any material

extent.' Yasin: 'Market growth was not found to be significantly correlated with weights of advertising.'

There is no reason to doubt these summaries – on two conditions. First, they are generalisations to which there may be exceptions. Second, they say there is no effect if it is not strong enough to be evident in these bi-variate analyses. Our view differs on both counts.

We have an interest in individual markets and not in the average. Henry's main conclusion is drawn after aggregating all ten categories; Yasin's is about the correlation across all his data. Also, our new question is about levels of aggregation which could be below – or above – the levels which are chosen here (such as *all* instant coffee, not decaffeinated and regular; *all* cheese, not cream cheese, hard cheese and so on – or frozen vegetables, not *all* vegetables).

Second, our definition of 'affect' is subtler and less demanding. As pointed out above, advertising may slow down a decline but not reverse it, it may accelerate growth but not be the overwhelming cause. It is better to analyse a multivariate situation, in which advertising is only one of the explainers. If we allowed for changes in product price across all the cases, not only for the frozen vegetables example, is it possible that the relation of size to adspend would look different?

The papers also raise other questions of definition. Henry points out the effect of total economic health on media cost: in 1988 media expenditure was 50% higher (at constant prices) than in 1985, but media delivery rose only 15%. Such differences may be larger than the effect we are looking for. We might ask why Yasin uses an advertising to sales ratio rather than actual advertising, why a time series was not looked at as well as a cross-section and so on. But the examples both serve the very useful purpose of encouraging us to speculate on other factors besides advertising and price which might be important.

For example, Yasin shows that margarines and butter are in decline 'despite their advertising' – but we might expect this, given the drop in bread (as a 'platform') and the rise in other snacks. We might expect butter to decline

faster, given trends in views about cholesterol and the competition symbolised by margarine advertising – but in fact competitive advertising does not figure in the analysis at all. Meanwhile chilled desserts rise fastest, and frozen ready meals had good growth – but what was the effect of increased distribution and the variety of offerings in supermarkets? Yogurts also rose: health and distribution again? Growth in snacks mirrors the decline in yellow fats. Shampoos rise and conditioners fall without allowance for the appearance of shampoos-with-conditioner. Foreign holidays and cancer scares do not figure in the growth of suncare preparations. More clothes washing products are sold but no regard is paid to any improvement in the desire to look and feel fresh and clean (maybe, but surely not only, encouraged by laundry product advertising).

Hence the papers are useful in forcing us to think of some other reasons for market size change than advertising in the market: price changes, advertising in other markets, social changes (between bread and jam or sandwiches and prepared snacks, views on health and appearance), availability and product innovation.

Other useful references

Colin McDonald, in a review of current thinking, *How Advertising Works* (Advertising Association with NTC Publications, 1992), summarises thus: 'Such evidence as there is seems to suggest that at the macro level of a market, as opposed to the individual brand, advertising does not affect overall growth or decline in demand.' His 'macro level' must correspond to some 'super-category' as we have suggested above.

John Philip Jones, in *How much is enough?* (Lexington Books, 1992) says much the same: '. . . the advertising and promotional efforts of individual brands cancel out to some extent, and this cancelling out inhibits the effect of the campaigns for individual brands of the total size of any category. The relatively small amount of research in this field tends to support this view. There are at least no strong data to support the notion that advertising has a significant macro effect on competitive markets.'

Both these authors quote other authorities and case histories to back up their conclusions.

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