

ADVERTISING **PAYS**

HOW ADVERTISING FUELS
THE UK ECONOMY

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Report by Deloitte LLP commissioned by the Advertising Association

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FOREWORD



by Gavin Patterson, CEO BT Retail and President, Advertising Association

Instinctively, when you work in advertising you understand its effects. Advertisers see at first hand how it promotes competition, spurs innovation and – most importantly of all, in the current climate – connects businesses with their customers.

But until now, those instincts have not been backed up with facts and consequently, I believe, advertising's potential to support growth is often overlooked. This report was commissioned to fill that void with an authority that goes way beyond the instincts of ad-land – it is founded on independent analysis from one of the world's leading consultancy firms.

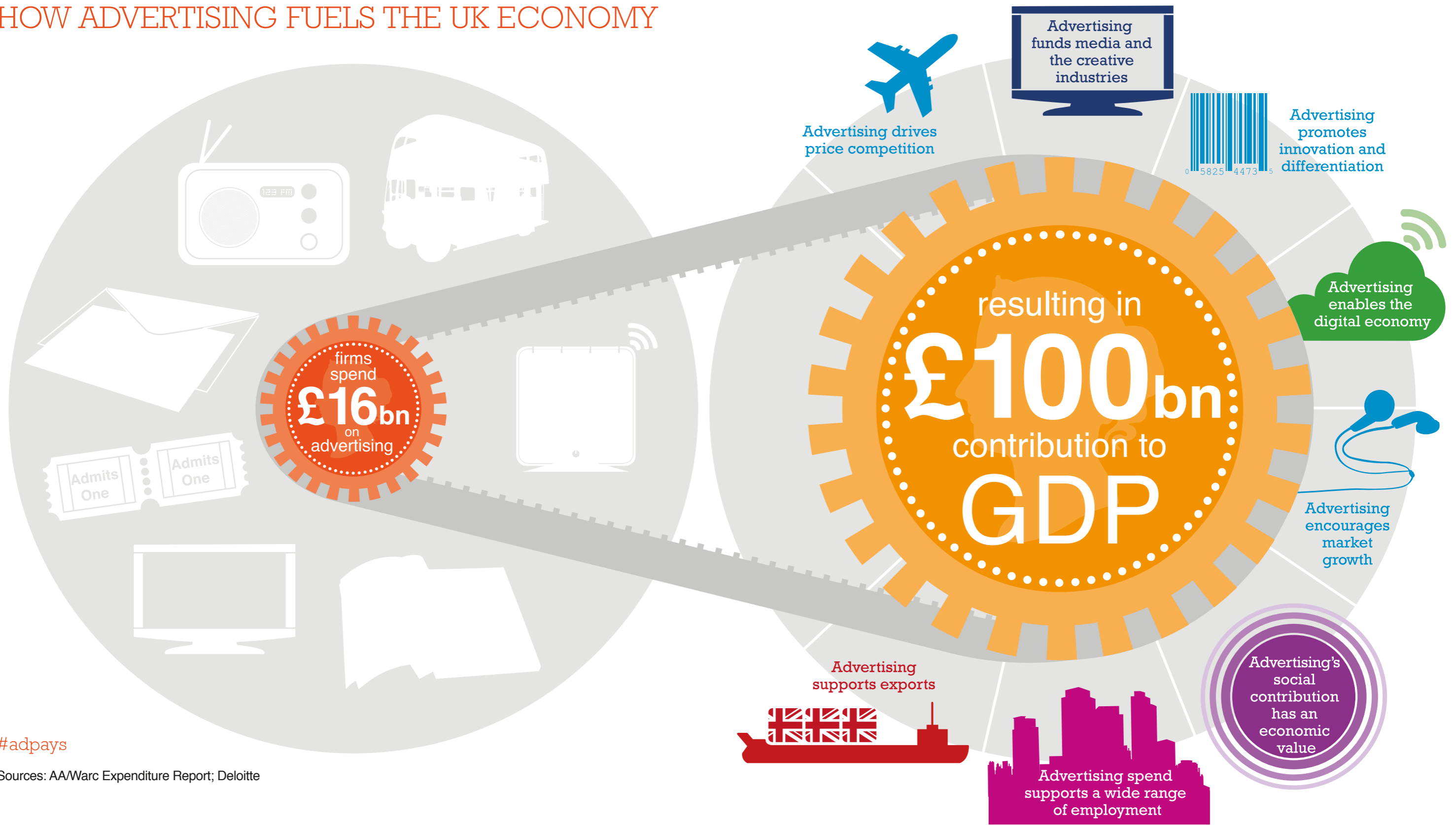
Deloitte's conclusions are startling. Advertising – to quote the report's title – is economic fuel. We might think of it as oxygen in the economy – not just a successful industry in its own right but a vital element in flourishing UK markets and our successful media and creative sectors.

The report's scope is impressive and could not have been embarked upon without the backing of industry. I'd like to thank the AA's membership for its support and, in particular, the Front Foot group, without whom this report would not have been possible.

The implications for policy-makers are powerful and compelling. If the task of government is to seek out policies that can encourage and sustain growth, then the time has come to look more closely at advertising.

ADVERTISING PAYS

HOW ADVERTISING FUELS THE UK ECONOMY



#adpays

Sources: AA/Warc Expenditure Report; Deloitte

EXECUTIVE SUMMARY

On average, £1 of advertising spend generates £6 for the economy. That means the £16 billion spent on UK advertising in 2011 generated £100 billion in the UK economy.

Key findings

Annual advertising expenditures of £16 billion support the advertising and creative industries and associated employment. However, the effect of advertising on the economy is much greater than that. We estimate that advertising adds at least £100 billion to UK GDP by increasing the level of economic activity and increasing the productivity of the economy.

The UK advertising industry has a strong international reputation and since 2002 has won more awards for its creativity than that of any other country, with the exception of the US.¹ Thanks to its international reputation, UK advertising helps to export over £2 billion in advertising services each year. In addition, successful advertising enables UK brands to enjoy strong international recognition, enabling the UK to export a much wider range of goods and services.

The advertising industry is central to the creative industries.² It provides a third of all TV revenues and two-thirds of newspaper revenues; it supports sectors from photography to film production. We estimate that over 550,000 people work in jobs that are funded by advertising revenues, or involved in the

commissioning, creation and production of advertising across the relevant supply chains.

However, the overall impact of advertising is much broader. It has a critical role in making the economy function. Advertising is at the centre of a virtuous circle of competition, innovation and market expansion, to the benefit of consumers and businesses.

Analysis of academic literature on advertising reveals a pattern: increases in advertising spend boost competition, improving quality and pricing for consumers.

Advertising enables businesses to deliver more innovative and higher quality products and services. It helps to match buyers and sellers more efficiently, allowing firms with new ideas to succeed more quickly and differentiate themselves through the quality of their offer to consumers.

Advertising can play a key role in accelerating the growth of new businesses and ideas. The internet provides a powerful example, as many of the UK's most popular websites are free at the point of use.

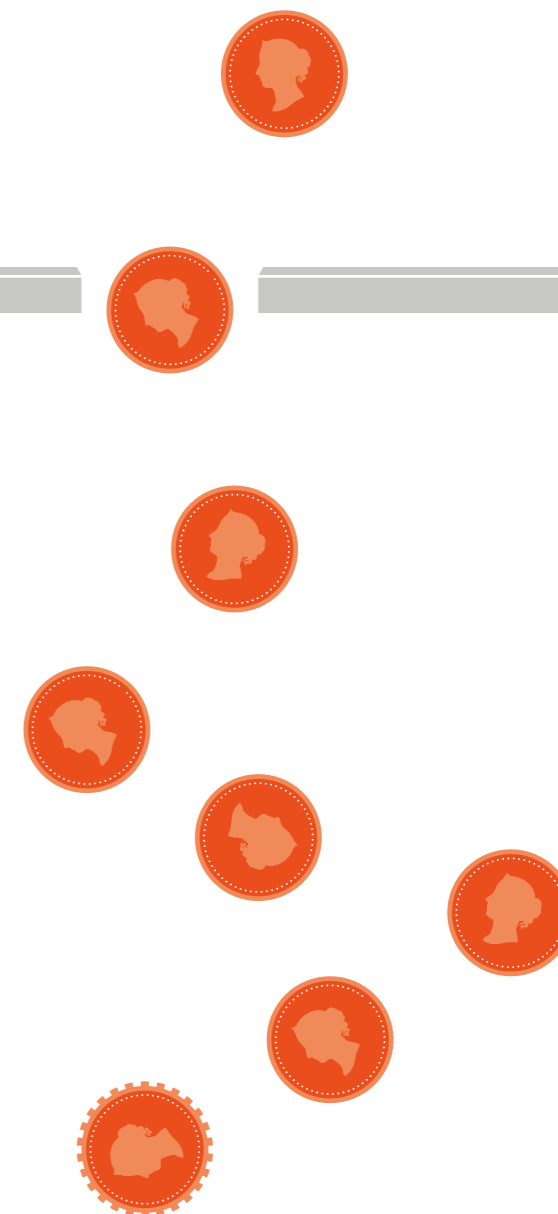
Funded by revenue they raise through advertising, they provide valuable services to consumers, including search, news, entertainment and travel information. Such sites make a tangible contribution to the economy, supporting both online and high-street sales and contributing over £7 billion to the UK economy.

This report analyses each of the above impacts, providing a perspective on the different ways in which advertising supports the UK economy.

It also calculates the overall impact of advertising on the economy based on a cross-country statistical analysis covering 17 markets over 14 years.

This analysis shows how higher levels of advertising spend increase GDP. Based on current expenditure, advertising adds at least £100 billion to UK GDP by raising the level of economic activity and boosting productivity.

On average, £1 of advertising spend generates £6 for the economy. That means the £16 billion spent on UK advertising in 2011 generated £100 billion in the UK economy.



¹ The UK would exceed the US if these figures were GDP weighted. Source: Advertising Association analysis of Gunn Report data.

² 'Creative industries' is used in this study as defined by DCMS in the Creative Industries Mapping Document 2001.

1

SCOPE OF THIS REPORT



Advertising informs, entertains, persuades, dissuades and helps to enhance the perception of value.

Advertising informs, entertains, persuades, dissuades and helps to enhance the perception of value. Its effects stretch across the economy, with roles ranging from an enabler of efficient markets to a supporter of the creative industries.

Advertising's contribution to the UK economy is often lost among narrower debates about the industry. To help address this imbalance, the Advertising Association commissioned Deloitte to examine the economic impact of advertising in the UK.

In order to assess the economic contribution of advertising activity, it is first necessary to define advertising. This study adopts a historical definition of advertising by Jeremy Bullmore which states that:

Advertising is any paid-for communication intended to inform and/or influence one or more people.³

While this report takes a broad approach to considering the effects of advertising, it is an economic impact report which focuses on the economic consequences of factors that are measurable, such as expenditure on paid-for advertising recorded by AA/Warc expenditure data.⁴

Limitations on the availability of data mean that effects of related activity such as sponsorship and market research are beyond the scope of this report. The overall approach of the report is to look at the impact of advertising through:

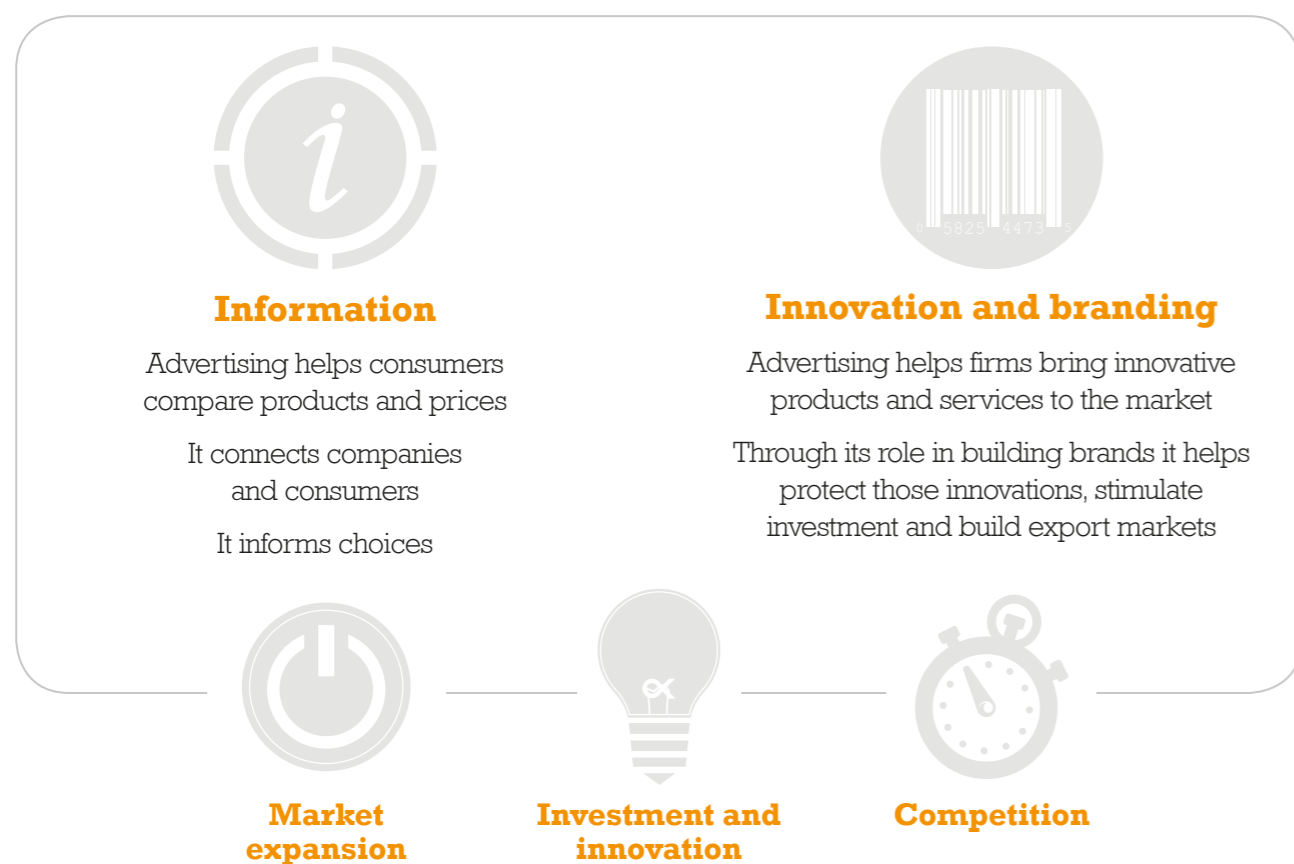
- an overall econometric analysis of the role of advertising expenditure in explaining GDP
- a series of case studies of the impact of advertising on individual aspects of the economy including its role as a stimulus to competition, a supporter of exports and a driver of innovation
- an analysis of the employment provided by expenditure on advertising. This covers roles related to the commissioning, creation and production of advertising content and roles that are indirectly funded by the revenue from advertising.

³ J.J.D. Bullmore in Bullmore, J.J.D. and Waterson, M.J. (eds) (1983), *Advertising Association Handbook*

⁴ <http://expenditurereport.warc.com/>

2

ADVERTISING TRANSFORMS OUR ECONOMY



Advertising fuels the economy

Advertising plays a central role in a market economy. It provides vital information to consumers on products and prices and makes it easier to bring new innovations to market.

Unless a brand quickly achieves adequate market share – and this is only possible through rigorous promotion – there is no way the programme of innovation could be afforded or financed. And, in consequence, no way in which the consumer could reap the benefits of that innovation.

Sir Michael Perry
Former chairman of Unilever.⁵

Without advertising, markets as we know them would cease to function. There would be less innovation. Products and services we take for granted would become more difficult to find and more expensive to consume.

Advertising is so fundamental to every part of our economy that it is very challenging to measure its impact. One way to approach this question is to look at how differences in the level of advertising across countries contribute to different levels of GDP.

In order to study this, Deloitte constructed a model of 17 countries covering 14 years, ranging from the G7⁶ through to developing economies. The model is designed to identify the main drivers of GDP differences between countries and isolate the role of advertising.

The £100 billion impact

⁵ Quoted in Boyfield, K. (2002), *The Effects of Advertising on Innovation, Quality and Consumer Choice*, The Advertising Association.

⁶ G7 countries are Canada, France, Germany, Italy, Japan, the United Kingdom and the United States.

Without advertising, markets as we know them would cease to function.

Appendix A⁷ describes the statistical methodology followed to address an important issue around the direction of causality. That is, even if we find a correlation between advertising and GDP, is this because higher levels of advertising drive higher economic growth, or do faster-growing economies generate higher levels of advertising?

The key findings from the model are as follows:

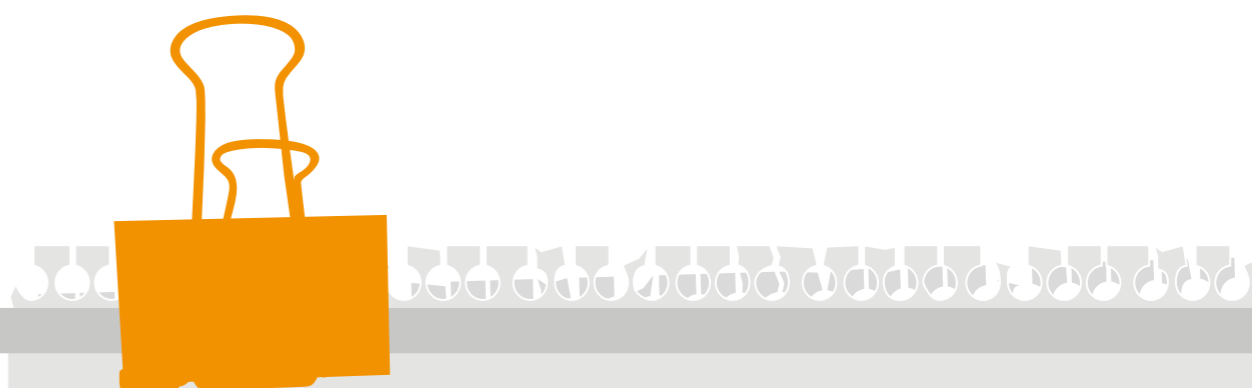
- Increases in advertising expenditures lead to a beneficial impact on GDP that begins to be felt almost immediately, with the effect rising over time as the impacts feed through the economy.

- We estimate that £1 spent on advertising generates on average £6 across the economy.⁸ To put this number into context, for most industries the economic impact of £1 is likely to be in the range of £2 to £4.⁹ The higher return estimated here arises from the ability of advertising to increase the flow of money around the economy and to improve productivity by driving up competition and innovation.
- On this basis, we estimate the total contribution of advertising to be at least 7% of total UK GDP, or £100 billion in 2011.

⁷ Please see Appendix A enclosed with this report, or visit www.credos.org.uk/appendices

⁸ This may be derived from the econometric results that show that an average 1% increase in advertising expenditure generates 0.07% higher GDP per capital within one year, rising to 0.6% within 10 years.

⁹ This can be observed from ONS I-O tables and other similar sources. The comparison is for illustrative purposes, as economic multipliers are not directly comparable with the 1:6 ratio derived from the econometric analysis. The economic multipliers referred to tend to reflect the impact of spend on output.



ACADEMIC RESEARCH ON THE EFFECTS OF ADVERTISING

The impact of advertising has been extensively debated in the academic literature. The sometimes controversial debate often rests on the extent to which advertising acts as a medium to inform consumers, leading to better decisions, or whether it persuades them to do something they would not otherwise have wished to do.¹⁰

Advertising restrictions have the potential to increase consumer prices

The impact of advertising on consumer prices is also a topic that has been much debated, partly because of the different effects that are observed across markets. A recent study on Austrian advertising taxation found that the tax increased overall consumer prices but with very different effects across markets – the reduction in advertising expenditure as a result of the tax led to increased prices for food products but falls for others.¹¹

The literature suggests these differences arise because the overall effect of advertising on prices will depend on the net effect on *economies of scale*, the firm's *unit costs* and *consumers' sensitivity to price*.¹²

Increased advertising tends to lower prices

Advertising has been shown to increase consumer price sensitivity,¹³ which – other things being equal – should reduce prices. Similarly prices can be expected to fall to the extent that advertising helps firms generate economies of scale.

On the other hand, advertising, like product research and development, adds to selling costs, which increases the firm's unit costs. When advertising increases the price sensitivity of demand, as it might when it contains price information, it works to reduce prices. In contrast, advertising creates higher intrinsic value for brands because it helps promote differentiation and innovation, which in turn drives customer demand.¹⁴

¹⁰ Bagwell, K. (2007), 'The economic analysis of advertising', *Handbook of Industrial Organization*, Volume 3.

¹¹ Rauch, F. (2011), 'Advertising expenditure and consumer prices', CEP discussion paper 1073.

¹² Chamberlin, E (1933), *The Theory of Monopolistic Competition*, Cambridge, MA: Harvard University Press (referred to in Bagwell, 2007).

¹³ Erdem, T. et al. (2008), 'The impact of advertising on consumer price sensitivity in experience goods markets', *Journal of Quantitative Marketing and Economics*, 6.

¹⁴ See Chamberlin (1933).

3

ADVERTISING MAKES MARKETS WORK

Advertising creates and sustains relationships between consumers and companies.¹⁵ It informs consumers about existing products and innovations, helping the best ideas, products and brands to succeed.

Advertising helps companies communicate their prices and products, allowing people to make informed choices about who they buy from and at what price. Advertising is at the centre of a virtuous circle of innovation, competition and market expansion.

Advertising speeds up the communication of product designs and innovations, enabling faster return on investment. It helps companies with the best ideas succeed and funds research and development. It also offers firms the opportunity to differentiate their products to consumers, increasing the range of choice available and establishing brands through which manufacturers are made accountable and which people can therefore trust.

Advertising is at the centre of a virtuous circle of innovation, competition and market expansion.



¹⁵ 'Consumers' can be individuals or businesses, depending on the form of advertising.

3.1

PROMOTES INNOVATION AND DIFFERENTIATION

Higher returns create incentives for firms to invest in innovation. A 2009 study, for example, found that firms which were able to differentiate their products increased the return on their innovations, particularly where those innovations were pioneering.¹⁶

As the following examples illustrate, these issues affect all markets from the most high-tech to the most cost-conscious. Advertising can support innovation to:

- **Back new product launches:** As described on the following page, the markets for films and video games exemplify the role that advertising can play in supporting investment in new products.
- **Support differentiation through brand:** Activia, for example, differentiates its product in terms of its digestive benefits. Its advertising campaign has won awards for its success in broadening Activia's appeal from a niche product into a major mainstream brand.¹⁷

Firms also use advertising to build differentiation through their brand's pricing model. The hotel chain Travelodge, for example, has used its marketing material to promote its ability to offer highly competitive prices by removing unnecessary products, services and costs from its core offering. The company's website reports that it offers 'everything you need and nothing you don't'.¹⁸



CASE STUDY

CINEMA BOX OFFICE REVENUES WOULD BE REDUCED BY £300 MILLION WITHOUT ADVERTISING

Film studios create awareness of new movies through advertising on television and other promotion, such as trailers, posters, film-specific websites and social media. Advertising provides timely information to consumers about the release of new films, prompting consumers to decide what to see. It also helps generate the level of interest required to secure space for screenings from exhibitors.

By publicising the planned release of a new film, advertising helps to reach the specific audience and generate cinema attendances quickly. Movie production requires a large capital outlay long before revenue is realised. Advertising helps to reduce the risk of this investment by increasing awareness of, and demand for, the film ahead of its release. The theatrical release typically only lasts

four to six weeks but generates one quarter of a film's revenues. Advertising will continue to be used to drive awareness of the film during the home entertainment window.

Without advertising, it is likely that this market would look very different. It would be harder for producers to innovate with formats, technologies or new actors. The result would be a lower level of production with less risk-taking.

We estimate that box office revenues would have been 27% lower in 2010 without advertising in that year,¹⁹ equivalent to almost £300 million in revenues.²⁰ This could be expected to have a significant impact on the overall market size, with a knock-on effect on the number and variety of films that could be financed.

¹⁶ Srinivasan, S. et al. (2009), 'Product innovations, advertising and stock returns', *Journal of Marketing* (January).

¹⁷ IPA (2009), 'Danone Activia: How a little bit of T.L.C. made a market leader'.

¹⁸ http://www.travelodge.co.uk/everyday_low_prices/

¹⁹ This is based on a film advertising elasticity estimate in *Advertising Effectiveness in UK Film Distribution* (Tony Robertson, September 2003), a report commissioned by the UK Film Council. The report estimates that a 1% change in TV advertising expenditure leads to a 0.11% change in box office revenues and a 1% change in press advertising leads to a 0.16% change in box office revenues. Assuming a 100% decrease in advertising expenditure implies an estimated 27% decrease in box office revenues.

²⁰ Total box office revenues in 2010 estimated at £1,076 million by the UK Film Council. The decrease in advertising revenues is estimated by multiplying box office revenues by 27% (see previous footnote).

3²

DRIVES PRICE COMPETITION



Advertising facilitates competition through price promotion, product differentiation and innovation, which in turn helps new entrants to penetrate markets.

This effect is recognised in the academic literature. One study, for example, examined the impact of the advertising of staple products such as detergent, toothpaste and toothbrushes. It found that increases in advertising led to higher overall demand *but that consumers also became more price sensitive.*²¹

The role of advertising in driving competition based on price can be observed in practically every market; prominent examples include flights, mobile phones and retail services.

In the airline industry, advertising has traditionally been used to support differentiation between providers in terms of service quality and to convey a sense of luxury travel compared with other modes of transport.²² However, competition in the industry changed significantly with the advent of budget airlines or Low Cost Carriers (LCCs) with their very different strategy. Their advertisements focused heavily on price rather than quality, while their pricing structures also differed markedly, with low initial offers used to drive yield.²³

The entry of LCCs into existing routes, supported by their advertising campaigns, has been shown to increase competition and reduce prices for both

leisure and business passengers.²⁴ They proved successful in attracting passengers and, in 2012, nearly half of travellers used budget airlines for their most recent trip.²⁵

In the mobile phone market, increased levels of advertising expenditure by the leading players²⁶ has contributed to substantial changes in the market structure. This is part of a global increase in mobile competition which, over the last ten years, has contributed to a doubling in the numbers of customers striking out for a superior deal.²⁷

The role of advertising in driving competition based on price can be observed in practically every market.



²¹ Erdem et al. (2008).

²² Kraft, G. (1965), 'The role of advertising costs in the airline industry', in *Transportation Economics*, NBER.

²³ Pitfield, D.E. (2004), 'Airline price competition: a time series analysis of "low-cost" carriers', August, *ERSA Conference*, paper no ersa04p680.

²⁴ Alderighi, M. et al. (2004), *The Entry of Low-Cost Airlines*, Tinbergen Institute.

²⁵ Mintel, 'Airlines', July 2012.

²⁶ For example, O2 increased its advertising expenditure by 50% in the last five years, Three by nearly one-third and Vodafone by 14%: Mintel, 'Mobile Network Providers – UK', March 2012.

²⁷ Strategy Analytics (2012), 'Global mobile customer loyalty reaches all-time low'.

CASE STUDY

COMPETITION IN THE SCHOOLWEAR MARKET HELPED TO REDUCE PRICES BY 21%

Prices of schoolwear fell considerably between 2004 and 2010, due in part to intense price competition between supermarkets – communicated through advertising.

Asda and Tesco instigated fierce price wars to increase their market shares, with Asda advertising a 100-day money-back guarantee on its schoolwear

if customers could find cheaper products elsewhere. Sainsbury's expansion in the sector also saw it commit to significant marketing, launching its largest back-to-school range in 2010. Through a combination of range expansion, pricing and advertising, Sainsbury's reported a 25% increase in 12-month sales in that year.

Schoolwear market shares, 2006–2010



Source: Mintel, Deloitte analysis

The supermarkets doubled their share of the schoolwear market between 2006 and 2010. Intense competition contributed to a decline in

average prices by 21% over a similar period.²⁸ We estimate this saved parents in the order of £200 million in 2010.²⁹

£200 million: the amount saved on schoolwear by parents in 2010, thanks to supermarkets advertising their intense price wars in the sector.

²⁸ Research by Verdict: <http://www.bbc.co.uk/news/business-10986415>

²⁹ Estimate based on analysis of IPSOS assessment of schoolwear purchasing behaviour reported in Mintel, 'Schoolwear', November 2010.

3.3 ENCOURAGES MARKET GROWTH

By communicating information about product attributes, price and availability, advertising helps to match buyers and sellers more efficiently, and reduce costs.³⁰ This can expand some existing markets and build new market sectors.

An example is Apple's advertising campaign ahead of the launch of the original iPhone:

Apple Inc's campaign to build excitement about its iPhone may be the most successful marketing effort ever, surpassing the drive to promote Ford Motor Co's 1964 Mustang and Microsoft Corp's Windows 95. [...] The combination of mobile phone and music player has generated more pre-sale media coverage than any other product.³¹

Apple has subsequently used the advertising-fuelled success of the iPhone to help create new market segments, the most prominent being in the tablet market with the iPad.³² The iPad is now in its fourth generation, with three million iPad minis selling in the first three days of release.³³

Advertising has also powered the growth of the sportswear market, through campaigns such as Nike's 'Just do it', which the US Center for Applied Research assessed as being instrumental in increasing Nike's worldwide sales from \$877 million in 1988 to \$9.2 billion in 1998.³⁴

The impact of such market expansion will vary significantly according to the state of the market, and may be more obviously present in some markets than others. Advertising is likely to be particularly important in helping to accelerate the growth of markets where there is significant technological, economic or social change.³⁵

³⁰ See for example Chamberlin (1933), who examined the role of advertising in supporting the development of economies of scale.

³¹ Heiskanen, V. (2007), 'Bloomberg: Apple iPhone may be most successful marketing effort ever; surpassing Mustang, Windows 95', 28 June. Cited in macedailynews.com

³² BBC (2010), 'Apple's iPad to kickstart tablet market', 28 January.

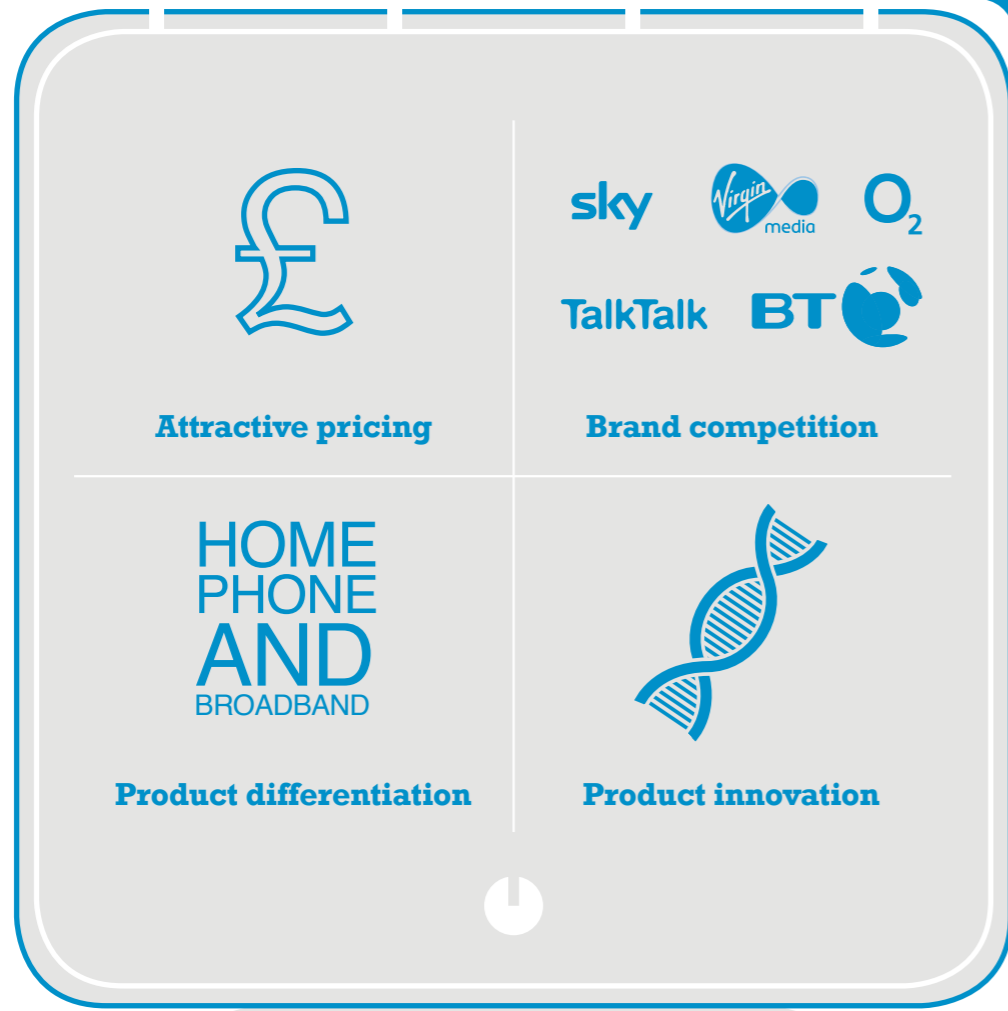
³³ Apple (2012), 'Apple sells three million iPads in three days', 5 November.

³⁴ Center for Applied Research, 'Mini-case study: Nike's "Just Do It" advertising campaign', <http://www.cfar.com/Documents/nikecmp.pdf>.

³⁵ Dr Simon Broadbent for Economics Committee, Advertising Association (1997), Does Advertising Affect Market Size?

CASE STUDY

ADVERTISING HAS PLAYED A KEY ROLE IN SUPPORTING THE GROWTH OF BROADBAND IN THE UK.

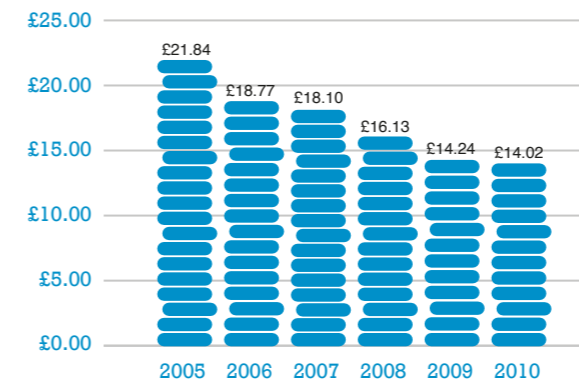


By communicating information about product attributes, price and availability, advertising helps to match buyers and sellers more efficiently.

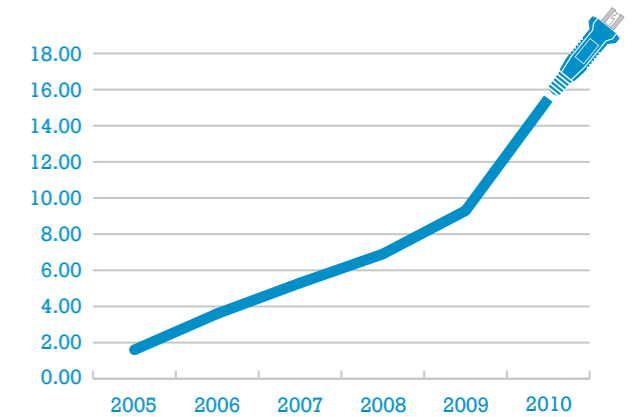


Firms have competed intensely to attract new customers and gain market share through attractive pricing and increased access speeds.

Average monthly cost of a residential broadband connection (excluding line rental)



Average headline speed (Mbit/s)



Source: Ofcom

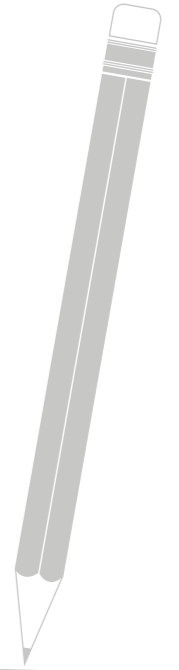
Advertising has driven increased competition and market expansion.

We estimate that without advertising, 36% of current broadband households would not yet have broadband access.³⁶

³⁶ This is based on broadband advertising elasticity of 0.4, sourced from John Nankervis, *Advertising and Price Elasticities of ADSL Access*, University of Essex, February 2004. The elasticity is applied to the annual increase in broadband connections, to estimate the reduction in new connections without advertising.

4

ADVERTISING FUNDS MEDIA AND THE CREATIVE INDUSTRIES



The UK's creative industries are rightly world-renowned, but without advertising many firms in these industries would simply cease to exist. The revenue generated by selling advertising supports the UK's commercial broadcasters, print media and other channels. It also contributes to the business models and revenues of a wide range of other creative sectors identified by the Department of Culture, Media and Sport (DCMS), including software, publishing, the performing arts and the UK independent production sector.³⁷

- Advertising spend contributes 29% of all UK TV revenues, the other principal sources of funding being the BBC licence fee and commercial subscriptions.³⁸
- These revenues fund major free-to-air and subscription channels, contributing to a diverse range of quality programming.

- In turn these broadcasters (alongside the BBC) sustain UK industries such as the independent production sector. In 2011 this sector generated £2.4 billion, with nearly £300 million revenues in exports of UK programmes and formats.³⁹

As with the television sector, UK magazine and newspaper businesses would also be unrecognisable without advertising. We estimate that two-thirds of newspaper revenues come from advertising, enabling a daily and diverse supply of news and comment.

Advertising supports local communities by funding local radio and printed media, notably over 500 local commercial and community radio stations⁴⁰ and 1,100 regional and local newspapers read by 33 million people a week. Advertising also supports independent cinemas.⁴¹

Revenue from advertising helps to pay for a wide range of other amenities including 50,000 bus shelters and other street furniture,⁴² and is an essential part of leading online services as described in Section 7.

The UK's creative industries are rightly world-renowned, but without advertising many firms in these industries would simply cease to exist.



³⁷ DCMS (2011), 'Creative industries economic estimates'.

³⁸ Ofcom Communications Report, 2012.

³⁹ PACT financial census and survey, 2012.

⁴⁰ Ofcom <http://media.ofcom.org.uk/facts/> and <http://www.ofcom.org.uk/static/radiolicensing/Community/community-main.html>

⁴¹ The Newspaper Society: <http://www.newspapersoc.org.uk/>

⁴² Figure provided by the Outdoor Media Centre.

5

AD SPEND SUPPORTS A WIDE RANGE OF EMPLOYMENT

550,000

UK jobs depend on advertising.



Advertising creates and supports jobs in the media and creative industries, as well as the wider economy.

In 2011, DCMS estimated that a total of 268,000 people were employed in roles such as the commissioning, design and production of advertising. However, this does not capture all employment associated with the sector, as it does not include all jobs involving the sale and purchase of advertising space.

Additional employment is generated in the broader supply chains that support these activities. The advertising revenue that a magazine generates, for example, will help to pay the wages of its staff and contribute to the costs of printing and distributing the magazine. Further economic activity and employment will be supported as the magazines' and distributors' staff spend their wages.

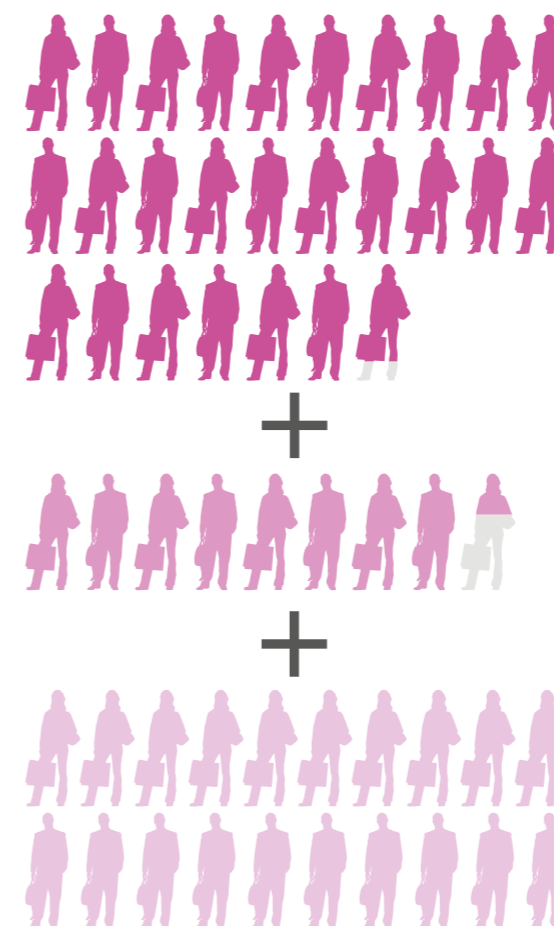
We estimate that the total employment supported directly or indirectly by the £16 billion of advertising spend in the UK is in excess of 550,000 jobs. This is comprised of:

- 115,000 jobs in advertising and creative/media agencies and placement of advertisements, as estimated by DCMS

- 153,000 people estimated by DCMS to be in associated jobs such as those employed in-house (client-side) by firms commissioning advertising
- an additional 83,000 jobs that lie outside the DCMS estimate, but which are supported by the revenue from advertising space.⁴³ For example, it includes a share of people employed in organisations such as the Royal Mail as a result of its direct marketing distribution.⁴⁴
- a further 200,000 jobs supported across the supply chains of the creative industries and throughout the wider economy from creative industries employees spending their wages.

These results relate to the jobs created directly or indirectly by the activities of advertising services. A much larger number of jobs are also created as a result of advertising's £100 billion role as an enabler of markets, although these do not form part of this analysis. A more detailed description of the approach is provided in Appendix B.⁴⁵

Employment supported by advertising and advertising revenue:



268,000

agencies and client-side (DCMS, 2011)

83,000

supported by revenue from advertising

200,000

across wider economy

⁴³ Some online intermediaries are also associated with the purchase of advertising space.

⁴⁴ In practice there may be a degree of double counting between this estimate and the existing DCMS estimates. Any double counting is not expected to be significant. Please see Appendix B enclosed with this report, or visit www.credos.org.uk/appendices

⁴⁵ Please see Appendix B enclosed with this report, or visit www.credos.org.uk/appendices

6

ADVERTISING SUPPORTS EXPORTS



The UK marketing industry is viewed as one of the world's 'centres of excellence' for creating effective integrated communication campaigns by Chief Marketing Officers at the planet's biggest brands.⁴⁶

The role of advertising in supporting exports has been extensively studied in the academic literature. Key findings include the following:⁴⁷

- Greater brand recognition in overseas markets supports market entry and helps to build larger market shares.
- A 2003 study found a strong positive link between the level of brand recognition and financial performance of that brand in export markets.⁴⁸

The practical impact can be illustrated by fashion brand Burberry, which in 2009 invested heavily in an online campaign to attract consumers well beyond the UK. The *Financial Times* reported that Burberry spent millions on creating its first TV advert, but chose a targeted launch to 60 million viewers on YouTube in Russia, Hong Kong and India ahead of more traditional television outlets.⁴⁹

Burberry also launched a number of high-profile campaigns including an 'expensively packaged' free sample to followers on Facebook. This strategy has contributed to Burberry's advance from the bottom of Interbrand's rank of leading or trending global brands to fourth place overall, behind only Apple, Amazon and Google.⁵⁰

The evidence on the quantitative impact of advertising on exports is much more limited. The Office for National Statistics (ONS) has estimated that the export of advertising services exceeds £2 billion per year. This estimate captures only the export of government-defined 'advertising services' and not the broader role that advertising plays in supporting the export of other products.

Greater brand recognition in overseas markets supports market entry and helps to build larger market shares.



⁴⁶ *Marketing Week* (2012), 'UK marketing rated "centre of excellence"', 14 March. Based on a survey of marketing executives from 65 major companies: <http://www.marketingweek.co.uk/news/uk-marketing-rated-centre-of-excellence/4000655.article>.

⁴⁷ See, for example, Cavusgil, S.T. and Zou, S. (1994), 'Marketing strategy-performance relationship: an investigation of the empirical link in export market ventures', *Journal of Marketing*, Vol. 58, No.1, pp. 1-21.

⁴⁸ Zou, S. and Zhao, S. (2003), 'The effect of export marketing capabilities on export performance: an investigation of Chinese exporters', *Journal of International Marketing*, Vol. 11, No. 4, pp. 32-55.

⁴⁹ *Financial Times* (2011), 'Burberry in step with digital age', 31 August.

⁵⁰ Enders Analysis (2012), 'Burberry's digital activism', 7 August.

7 ADVERTISING ENABLES THE DIGITAL ECONOMY

Advertising contributes to £76 billion in total sales to the UK economy. The incremental benefit is estimated as £7 billion per year.

Advertising plays a crucial role in the development of the internet by providing funding for free search activities, social media, instant messaging and the majority of websites. In turn, these services provide £5 billion in value to consumers.⁵¹

The growth of the digital economy has also changed the way that people research products and make purchases.

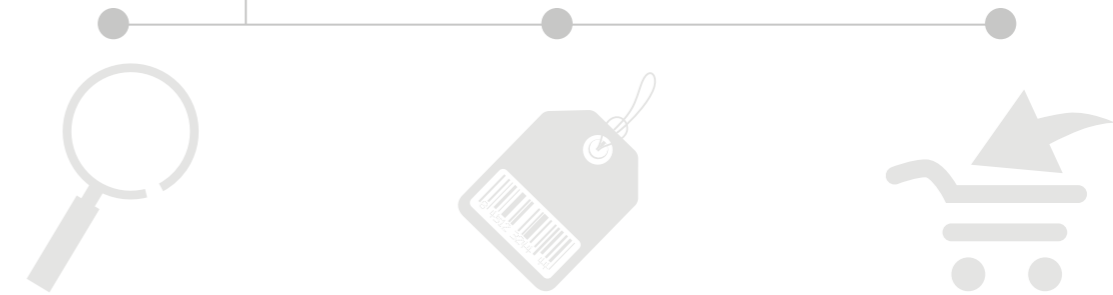
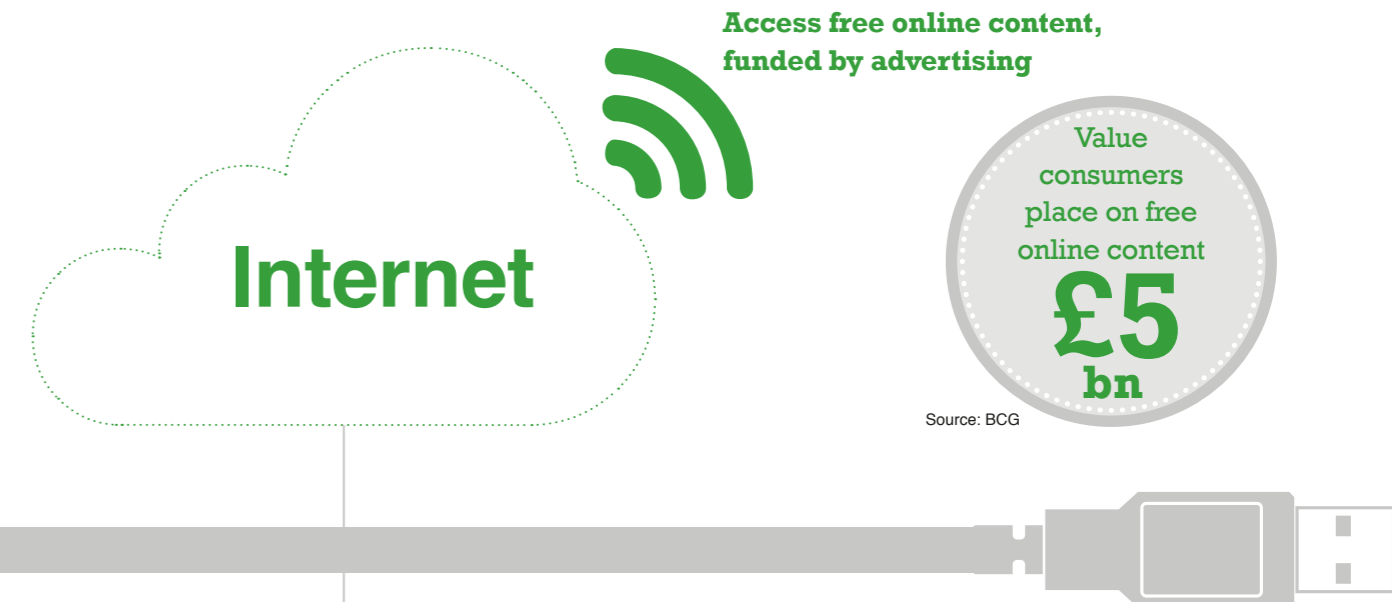
Online search is estimated to account for 43% of total visits to e-commerce sites. A further 8% comes via social media such as Facebook – sites that rely on advertising as an important source of revenue.⁵² Such referrals we estimate to result in £35 billion in online sales.⁵³

These benefits are not limited to the digital economy, as advertising-funded sites also drive value for the high street. Websites such as

TripAdvisor are increasingly important drivers of purchase decisions. We estimate £33 billion in high-street sales are supported in this way. In addition, online advertising directly stimulates an estimated £9 billion in retail sales per year.⁵⁴

Taking these factors together, advertising contributes to £76 billion in total sales to the UK economy. Excluding those sales that would have occurred without the internet, the incremental benefit is estimated as £7 billion per year.⁵⁵

The economic contribution of advertising through the internet:



Advertising supports online consumer research

Advertising-funded sites help consumers research products before purchasing them.

£33bn

Source: Deloitte.

Online advertising drives high-street sales

Analysis of ROI data shows online advertising is a significant driver of high-street sales.

£9bn

Source: Deloitte.

Advertising-funded sites support e-commerce

Referrals from search and social media are a major source of online sales.

£35bn

Source: Deloitte.

Some of the above spend will be diverted away from other channels. Not all of the value of that spend will be retained in the UK economy and GDP measures only include certain elements of the purchase value.

Controlling for these factors, we estimate the increase in economic benefit from advertising-supported internet activity:

£7bn

Source: Deloitte.

⁵¹ A willingness-to-pay estimate of the value of online services by BCG (2010), *The Connected Kingdom*. Please see Appendix C enclosed with this report, or visit www.credos.org.uk/appendices

⁵² Experian (2012), 'Experian Hitwise reveals latest UK search engine and social analysis', January. Enders (2011), 'UK consumer e-commerce trends', July.

⁵³ Please see Appendix C.

⁵⁴ Advertising impact on high-street sales estimated using Nielsen advertising ROI data. Research online, purchase offline estimate based on analysis of online behaviour by Ofcom and BCG. Please see Appendix C.

⁵⁵ Please see Appendix C.

8

ADVERTISING'S SOCIAL CONTRIBUTION HAS AN ECONOMIC VALUE

Government campaign 'Don't advertise your stuff to thieves' reduced the cost of crime by £189 million.

Advertising is used extensively by the government, the voluntary sector and private sector corporations to encourage positive behavioural change, resulting in substantial social benefits. Such benefits can often be shown to have real economic value.

- A study in Northern Ireland found a 35% reduction in deaths from drink-driving between 1995 and 2006 as a result of a campaign run by the Department of the Environment.⁵⁶ The UK government calculates the value of a life in the UK as £1.7 million.
- In 2009 a stroke-awareness campaign increased the volume of stroke-related calls by over 55% in the first four months of the campaign. Moreover, it is estimated that 9,864 additional stroke sufferers got to hospital more quickly in that year because they called '999' promptly as a result of the campaign activity.⁵⁷ The value of Quality

Adjusted Life Years (QALYs) created in 2009 as a result of the campaign was £65.7 million. After taking account of additional care costs, the overall payback from the campaign is estimated to have been £26 million in 2009.

- In 2003–2004, there were over 4 million incidents of theft in the UK, making it the largest single type of crime. Along with the emotional distress to victims, theft also has a financial cost – an estimated £9.5 billion per year.

In response, the government launched the 'Don't advertise your stuff to thieves' campaign to raise awareness and encourage behavioural change.

The campaign spend was £13.5 million and it is estimated to have reduced the cost of crime by £189 million.⁵⁸

- There was a decline in flu vaccination rates in 2010, the year when the government withdrew its advertising campaign for flu vaccination, which had previously been running for a number of years.⁵⁹

A £8 million stroke awareness campaign produced an economic payback of £26 million in just one year.



⁵⁶ IPA Effectiveness Awards (2006), 'Department of the Environment (Northern Ireland), The longer term effects of anti-drink driving advertising'.

⁵⁷ IPA Effectiveness Awards (2010), 'COI – Dept of Health – Stroke Awareness: How the Department of Health's stroke awareness campaign acted fast'.

⁵⁸ IPA Effectiveness Awards (2008), 'Acquisition Crime – COI – Home Office – Crime: Cutting the cost of crime'.

⁵⁹ Health Protection Agency research cited in *Daily Telegraph* (2010), 'Why was the flu jab campaign dropped?', 28 December.

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APPENDIX A

THE IMPACT OF ADVERTISING ON GDP

This appendix presents the details of the econometric estimation carried out in order to assess the impact of advertising on GDP (Section 3).

A.1 ADVERTISING AND ECONOMIC GROWTH

The objective of this section of the analysis is to assess the aggregate impact of advertising on GDP.

A.1.1 THE DATASET EMPLOYED

The analysis used a dataset to estimate the relationship between GDP per capita (the dependent variable of interest), advertising expenditure (the main explanatory variable) and a number of other variables determining GDP growth (e.g. aggregate capital investment, volume of international trade for the country and level of government spending).

An initial dataset of countries was constructed by collecting publicly available data from the World Bank's World Development Indicators.⁶⁰ This was supplemented by data from the Advertising Association, WARC and Nielsen, as well as by data from the International Labour Organization (KILM and LABORSTA). This generated a panel of 17 countries comprised of the world's largest economies as well as some developing economies, spanning a 14-year period from 1998 to 2011.

Table 1: List of countries included in the analysis of advertising and GDP

Countries
Argentina, Australia, Brazil, Canada, Chile, China, France, Germany, India, Italy, Japan, Peru, Russia, Singapore, United Kingdom, United States, Vietnam

Source: Deloitte analysis

An additional key factor that influenced the choice of these countries, especially the less developed nations, was the availability of relevant data for this analysis. Table 2 presents the variables included in the econometric model with their definitions.

Table 2: Variables used in the analysis of advertising and GDP per capita

Variables	Description	Source
<i>GDP per capita</i>	Real GDP per capita (constant USD, PPP adjusted)	<i>World Bank World Development Indicators</i>
<i>Trade/GDP</i>	Annual trade volume as a share of GDP (proxy for the 'degree of openness' of a country)	<i>World Bank World Development Indicators</i>
<i>Investment/GDP</i>	Annual share of aggregate investment to GDP	<i>World Bank World Development Indicators</i>
<i>GovExp/GDP</i>	Annual government consumption expenditure for goods and services as a share of GDP	<i>World Bank World Development Indicators</i>
<i>Advertising Expenditure</i>	Annual advertising expenditure (constant USD, PPP adjusted)	<i>Advertising Association / WARC / Nielsen</i>
<i>Total hours worked</i>	Annual average hours worked multiplied by the total labour force in the economy	<i>ILO/KILM/LABORSTA and World Bank World Development Indicators</i>

Source: Deloitte analysis

⁶⁰ Available from: <http://data.worldbank.org/indicator>

The majority of G7 countries in the sample (plus Australia) cluster towards higher advertising intensity levels, whereas the less economically developed countries cluster towards lower levels of advertising intensity.

A.1.2 THE APPROACH

The approach of this study, including variables used, follows the work conducted by Aiginger and Falk (2005),⁶¹ who set out to investigate determinants of economic growth. The final specification used in this study is very similar to that used by Aiginger and Falk, with certain variations due to data availability or correlation between explanatory variables. The Aiginger and Falk paper was supplemented by advanced literature from the mobile Information and Communication Technologies sector, such as those of Andrianaivo and Kpodar (2011)⁶² and Lee, Leventis and Gutierrez (2009).⁶³

The Aiginger and Falk paper uses OECD data over the period 1960–2002. The latter two papers adopt a standard economic growth model using a sample of 44 African countries over the periods 1988–2007 and 1975–2006, respectively.

The approach to testing and quantifying the impact of advertising builds directly on this literature by including advertising as an additional potential driver of economic growth.

This analysis does not reflect the full transformational impact of advertising, as in all countries and all periods in the sample there is some advertising. Nonetheless it captures impacts on GDP from changes in advertising expenditure that are more significant than small marginal changes in the amount of advertising within one country.⁶⁴

The impact of advertising on GDP per capita is complicated by the likely existence of reverse causality. Specifically, higher levels of advertising are expected to lead to higher GDP per capita; however, conversely, higher GDP per capita is expected to be associated with firms increasing advertising expenditure in order to capture a share of the larger market. Because of this complex relationship, isolating the causal impact of advertising on GDP is difficult and requires careful econometric analysis.

An alternative specification to the form used here would have been to estimate the model in growth rates. However, the postulated impact of advertising is transformational and gradual. The dynamic panel data specification used here better reflects the nature of the effect advertising is thought to have.

The issue of reverse causality between advertising expenditure increases and economic growth is addressed by specifying a dynamic panel data model and estimating the parameters using the Generalized Method of Moments (GMM) techniques developed by Arellano and Bover (1995) and Blundell and Bond (1998).⁶⁵ This technique uses instruments to provide consistent estimates of the model parameters, and allows for the inclusion of a lagged dependent variable to accommodate the decay-effects of increased levels of advertising on future economic growth (GDP). Standard panel data estimators such as the fixed or random effects methods will be inconsistent if advertising is endogenous. This will be further compounded due to the lagged dependent variable which is correlated with the country-specific effect by construction. The system GMM methods allow for these issues.

Time-dummy variables are included in the model in order to capture the possibility that the model excludes variables that vary over time (but not by country), world trade being an example. If one or more of these (variables) are correlated with the included regressors, the parameter estimates will be inconsistent (i.e. the regressors will then be endogenous). The inclusion of time-dummy variables will address these factors, and mitigates the potential for inconsistent estimates that would result from omitted variables bias. Whilst it would not be possible to identify the impacts of separate time-varying variables together with the time-fixed dummy variables, this is certainly not the case for variables that are country-specific, such as those currently included in the model. Hence including time dummies leads to consistent estimates in the case of common omitted variables.

⁶¹ Aiginger, K. and Falk, M. (2005), 'Explaining differences in economic growth among OECD countries', *Empirica* Vol. 32, pp. 19–43.

⁶² Andrianaivo, M. and Kpodar, K. (2011), 'ICT, financial inclusion, and growth: Evidence from African countries', *IMF Working Papers*, 11/73, pp. 1–45.

⁶³ Lee, S.H., Leventis, J. and Gutierrez, L. (2009), 'Telecommunications and economic growth: An empirical analysis of sub-Saharan Africa'. Available from SSRN: <http://ssrn.com/abstract=1567703>

⁶⁴ The model does not show the full transformational effect; rather it depicts the effect from increasing or decreasing advertising from its current levels. Part of this is controlled for by the use of countries at various stages of development. However, it is likely that the full effect of advertising would be larger. The intuition behind this is that advertising is likely to have a non-linear impact on GDP. For example, it may be that for each incremental pound spent (or reduced) from a lower level of advertising, the impact on the market is likely to be higher than it would be at higher levels of advertising.

⁶⁵ Arellano, M. and Bover, O. (1995), 'Another look at the instrumental variables estimation of error-components models', *Journal of Econometrics*, Vol. 68, No. 1, pp. 29–51. Blundell, R. and Bond, S. (1998), 'Initial conditions and moment restrictions in dynamic panel data models', *Journal of Econometrics*, 87(1), pp. 115–43.

A.1.3 THE MODEL

The model specification adopted takes the following form:

Equation 3: Theoretical Model

$$\begin{aligned} \ln(\log(GDP_{percap})_{it}) = & \\ & \alpha + \beta_1 \ln(\log(GDP_{percap})_{it-1}) + \beta_2 \log(AdvExp_{it}) + x'_{it}\theta + \gamma_t + \alpha_i + \varepsilon_{it} \\ & + \lambda\varepsilon_{it-1} \end{aligned}$$

where $x_{i,t}$ includes: $Hours\ worked_{i,t}$, $\ln\left(\frac{GovExp}{GDP}\right)_{it}$, $\ln\left(\frac{Trade}{GDP}\right)_{it}$, $\ln\left(\frac{Investment}{GDP}\right)_{it}$
 γ_t represents dummy variables for each year in the dataset (excluding the base year),
subscript i indicates each country while subscript t denotes the year.

On the left-hand side of the equation is GDP per capita, which is expressed as a function of the lag of real GDP per capita, advertising expenditure and a set of determinants of growth. These are: total hours worked, government expenditure, trade volumes, and aggregate investment. All variables are in logs and the model allows for first-order moving average serial correlation in the errors.⁶⁶

The model was estimated using the system GMM method of Arellano-Bover/Blundell-Bond over the period 1998–2011 on the data as described in A.1.2.

The error terms v_i and ε_{it} are assumed to be independent and identically distributed over i , and t .

GDP per capita is assumed to be contemporaneously endogenous, that is, correlated with current and past realisations of the error term. Hence: $E(AdvExp_{i,t} \varepsilon_{i,s}) = 0$ only for $s > t$.

Advertising expenditure, investment and trade are assumed to be pre-determined, that is, correlated with past realisations of the error term but uncorrelated with contemporaneous and future realisations of the error term: $E(X_{i,t} \varepsilon_{i,s}) = 0$ only for $s \geq t$.

⁶⁶ The model follows a 'reduced form' approach instead of building a macroeconomic system of equations to understand the impact of advertising on particular variables. The model draws on the literature on economic growth to explain GDP as a function of a number of variables, and investigates whether the advertising variable is a useful additional explanatory factor in the model.

A.1.4 THE RESULTS

Table 4 below reports the estimates of Equation 3 using the Arellano-Bover/Blundell-Bond estimator

Table 4: Econometric results

Econometric results	
Number of observations =	163
Number of groups (countries) =	17
Time variable:	time
Observations per group:	
	• min = 1
	• avg = 9.588235
	• max = 12
Number of instruments =	143
Wald chi2(17) =	132199.16
Prob > chi2 =	0.0000

$\log(GDP\ per\ capita)_t$	Coefficient	Standard Error	Z	P > Z	95% confidence interval	
$\log(GDP\ per\ capita)_{t-1}$	0.950598	0.013009	73.07	0.000	0.925101	0.976095
$\log\left(\frac{Government\ expenditure}{GDP}\right)_t$	-0.16925	0.026674	-6.35	0.000	-0.22153	-0.11697
$\log(advertising\ expenditure)_t$	0.069423	0.014499	4.79	0.000	0.041005	0.09784
$\log(total\ hours\ worked)_t$	-0.0515	0.013746	-3.75	0.000	-0.07845	-0.02456
$\log\left(\frac{investment}{GDP}\right)_t$	0.032551	0.015775	2.06	0.039	0.001633	0.063469
$\log\left(\frac{trade}{GDP}\right)_t$	0.027635	0.010988	2.52	0.012	0.006099	0.04917
Dummy variable year 2	0.043805	0.007887	5.55	0.000	0.028346	0.059263
Dummy variable year 3	0.048376	0.007787	6.21	0.000	0.033113	0.063639
Dummy variable year 4	0.027715	0.006749	4.11	0.000	0.014487	0.040942
Dummy variable year 5	0.0342	0.006345	5.39	0.000	0.021764	0.046635
Dummy variable year 6	0.047735	0.007006	6.81	0.000	0.034004	0.061466
Dummy variable year 7	0.048313	0.00718	6.73	0.000	0.03424	0.062386
Dummy variable year 8	0.041645	0.007105	5.86	0.000	0.027719	0.055572
Dummy variable year 9	0.04014	0.007186	5.59	0.000	0.026056	0.054223
Dummy variable year 10	0.041632	0.007581	5.49	0.000	0.026773	0.056491
Dummy variable year 11	0.015637	0.007537	2.07	0.038	0.000865	0.03041
Dummy variable year 13	0.062478	0.006904	9.05	0.000	0.048947	0.076009
Constant	0.395779	0.259029	1.53	0.127	-0.11191	0.903467

Source: Deloitte analysis.

The above analysis shows that a 1% increase in advertising expenditure leads to 0.07% higher GDP per capita in the same year.

Due to the lagged dependent variable, it is also possible to postulate that an increase in advertising expenditure in a given year supports a higher GDP. This increase in GDP in the current period will result in higher GDP in the following and subsequent periods due to the significant lagged dependent variable. Theoretically, this effect takes place over a

large number of years. However, due to the large number of variables that could affect GDP, this study has estimated only a 10-year impact in the interests of prudence. The 10-year effect of a 1% increase in advertising expenditure is a 0.6% increase in the long-run level of GDP.⁶⁷

The remaining variables all seem sensible from an economic perspective and are significant at the 5% level. The negative coefficient on the government expenditure as a percentage of GDP variable is supported by a variety of economic literature, in line with the view that a larger government has a negative impact on GDP per capita, including a recent finding by the European Central Bank: ‘The model results show a significant negative effect of the size of government on growth.’⁶⁸

The coefficient on the variable for hours worked is negative. While this may appear counter-intuitive at first, upon examination of the data it becomes apparent that more developed countries do indeed have fewer working hours, and that each hour of work yields output of higher value in more developed countries.

The positive coefficients on both investment as a percentage of GDP and trade as a percentage of GDP are in line with economic theory, suggesting that higher investment and higher trade openness result in higher GDP.

A.1.5 DIAGNOSTIC TESTS

Details of the post-estimation diagnostic tests supporting the choice of the instrumental variables employed in the estimation are summarised in this section.

The first test (Table 5) determines whether the instruments are valid by investigating whether the moment conditions differ significantly from zero. This assumption is necessary for the estimator to be consistent. The test is not rejected at the 5% significance level, suggesting that the instruments are valid.

Table 5: Sargan test of over-identifying restrictions

Sargan test of over-identifying restrictions	
Sargan test of over-identifying restrictions	
H0: over-identifying restrictions are valid	
Chi2(125) = 151.2414	
Prob > chi2 = 0.551	

Source: Deloitte analysis

The Arellano-Bond test for serial correlation of the error term ε_{it} reported below shows that it is not possible to reject the null hypothesis of no serial correlation in the errors.

Table 6: Arellano Bond test for serial correlation

Arellano Bond test for serial correlation		
Arellano-Bond test for zero autocorrelation in first-differenced errors		
order	z	Prob > z
1	-2.2559	0.0241
2	-1.359	0.1741
H ₀ : No autocorrelation		

Source: Deloitte analysis

The trended nature of the key variables, possible unit roots and the issue of co-integration were investigated and necessary adjustments undertaken:

- The data used for the analysis is inflation-free. Real GDP figures and Purchasing Power Parity adjusted constant dollar advertising expenditure are used.
- Panel unit roots tests were carried out on all series using the methods developed by Levin, Lin and Chu (LLC, 2002). All variables were found to be stationary, and are a mixture of I(0) and I(1) trend-stationary processes. In other words, they have a deterministic trend. This means that the variables in question will co-integrate by construction in the model as estimated, as a linear combination of the variables will be stationary by definition. Note that a trend-stationary variable is said to be stationary despite its mean being a function of time, because the stochastic properties of the trend are defined by error process which is stationary, i.e. $Y(t) = a + b*Y(t-1) + c*t + \text{error}$. This was the case for the dependent variable.
- The above means that the model is valid as estimated in log form.

Finally, in order to test the robustness of the advertising coefficient, the regression was run on subsets of the data. The coefficient remained within the range of 0.06 and 0.09 across these samples, signifying a very small variation. The subsets included:

- testing on only the G7 plus Australia and the BRICs
- testing on various subsets of years – excluding years at the top end and bottom end of the dataset, and various combinations of this in order to estimate an impact.

Together, these tests indicate that the estimation and results are statistically robust.

⁶⁷ As with any econometric estimation, the model measures the economic impact of marginal changes in the amount of advertising, across the countries and time periods in the dataset. The magnitude of the economic impact could be different with large changes in the amount of advertising within a country, such as sustained increases in advertising over time that raise advertising intensity significantly beyond the levels observed within the dataset.

⁶⁸ ‘Economic performance and government size’, Working Paper Series No. 1399, November 2011, European Central Bank – <http://www.ecb.int/pub/pdf/scpwps/ecbwp1399.pdf>

APPENDIX B

EMPLOYMENT SUPPORTED BY ADVERTISING SPEND

In order to generate an overall employment estimate, existing estimates from DCMS were compiled, which capture:

- people employed in advertising agencies;
- people employed in the production and creation of advertisements;
- client-side/in-house employees involved in the commissioning of advertisements.

To these were added employees whose jobs are supported by the revenue from the sale of advertising space such as people employed by ad-dependent regional papers.

Finally the supply-chain linkages between the affected industries and the wider economy were examined to provide a broader analysis of the number of supported jobs.

B.1 CALCULATING THE EMPLOYMENT SUPPORTED BY ADVERTISING REVENUE

The employment supported by advertising revenue was estimated by one of two methods:

- **Revenue attribution:** For sectors where suitable data was available, the direct employment supported by advertising was calculated by taking a *share* of total employment in advertising-funded organisations. This share is given by the proportion of the organisation's revenues that come from advertising.

Employment data is only available for some organisations in each of the media. The advertising-supported employment calculated in this manner is extrapolated to the rest of the market. This is done by calculating the number of advertising-funded jobs per pound of advertising revenue in the relevant organisations, which is then applied to the remainder of advertising revenues.

- **Value-add estimation:** For other sectors the total revenue from advertising was available⁶⁹ but it was not possible to use the revenue attribution approach because total revenue was not reliably available. In those cases an alternative approach was used based on Eurostat data.

From Eurostat's value-add data tables it is possible to derive the total employment generated per unit revenue for each sector.⁷⁰ This was multiplied by the level of advertising revenue to estimate the total advertising-supported employment.

In applying these methods advertising revenue is taken from the AA/WARC expenditure report.⁷¹ An adjustment to the revenue figures was made in order to avoid double-counting advertising agency and production jobs identified by DCMS.⁷²

⁶⁹ Sources include AA/WARC.

⁷⁰ Eurostat produces revenue/value-add ratios and separate estimates for the value-add per employee by sector. These figures can be combined to estimate employment per unit revenue. Value-add per employee figures date from 2009 but given the relatively slow productivity growth in recent years, they are still likely to represent a valid estimate of 2011 productivity.

⁷¹ <http://expenditurereport.warc.com/>

⁷² Achieved by deducting advertising agency commissions from total advertising expenditures. Commissions are estimated as the difference between Net Advertising Revenue and Advertising Expenditure published by Ofcom for television services. This is approximately 15% of television advertising expenditure. The same ratio was applied to all categories.

Table 7: Employment from advertising expenditure, 2011

Media	Method	Advertising expenditure	Advertising revenue (excluding advertising agency commissions)	Estimated employment
Television	Revenue attribution	£4,159	£3,557	6,226
Press	Revenue attribution	£3,945	£3,374	30,607
Direct mail	Revenue attribution	£1,729	£1,478	24,659
Out-of-home	Revenue attribution	£886	£758	2,375
Cinema	Value-add estimation	£172	£147	2,815
Radio	Value-add estimation	£427	£365	6,858
Internet	Combined approach	£4,784	£4,091	9,317
Total		£16,013	£13,771	82,857

Source: AA/Warc, Deloitte calculations

B.2 CALCULATING EMPLOYMENT THROUGH SUPPLY CHAIN LINKAGES

The next step in the analysis was to consider how the above generates wider employment across the economy.

Government Input–Output tables trace the interdependences between individual sectors and the rest of the economy. It is possible to derive from these tables multipliers that summarise the relationship between employment in a specific sector and wider employment across the economy as a result of the sector's interdependences.⁷³

Table 8 summarises the results of this analysis.

Table 8: Use of multiplier factors

Source of estimate	Media / employment source	Deloitte estimate	Multiplier (Type II)	Total employment
Deloitte	Television	6,226	2.02	12,577
	Press	30,607	1.71	52,338
	Direct mail	24,659	1.37	33,783
	Out-of-home	2,375	1.55	3,681
	Cinema	2,815	2.24	6,306
	Radio	6,858	2.01	13,785
	Internet	9,317	1.64	15,280
DCMS	Production, creation	115,000	1.55	178,250
	Client-side/in-house commissioning	153,000	1.55	237,150
Total				553,150

B.3 POTENTIAL OVERLAP WITH DCMS METHODOLOGY

The analysis undertaken in this report has been designed to complement and extend the existing DCMS estimates and, as far as possible, areas of potential overlap have been addressed. Specifically, the Deloitte analysis excludes two areas that are addressed by DCMS, namely advertising agencies and in-house commissioning.

Nevertheless, the Advertising Association has informed Deloitte that some out-of-home and internet firms within the Deloitte methodology may be captured with the 'agency' population under the DCMS methodology. As these categories account for fewer than 15,000 jobs in total, the impact is not considered to be material.

⁷³ The employment multipliers used in this study are sourced from Scottish Government Statistics.

APPENDIX C

ENABLING THE DIGITAL ECONOMY

SUPPORTING THE GROWTH OF E-COMMERCE

In 2011, UK consumers spent £68 billion through e-commerce sites such as Amazon and eBay.⁷⁴ Organic and paid search activities are increasingly important channels to drive traffic and support online sales:

We saw record levels of Internet traffic at Christmas [2011] with 2.18 billion visits going to online retailers in December. [...] Getting the right blend of traffic from search, social, affiliates and other traffic sources is essential, but with search being so dominant at these key times, it is more important than ever for marketers to optimise paid and organic search campaigns.

Experian Hitwise

Online search is estimated to have accounted for 43% of total visits to e-commerce sites, with another 8% coming through social media such as Facebook – sites that rely on advertising as an important source of revenue.⁷⁵ Overall, therefore, internet search and referrals account for half of all visits to e-commerce sites by UK consumers, or £35 billion in sales.

These sales generate a total economic value-add for the UK economy, which captures factors such as profits for UK firms, wages to UK employees and tax paid to the Treasury.

Convenience and lower pricing are leading reasons for consumers choosing to shop online.⁷⁶ Much of the economic value generated by online sales will be substitution from other channels, but even on a conservative basis the net economic benefits from search/referrals are likely to exceed £2 billion.⁷⁷

GENERATING ADDITIONAL FOOTFALL IN THE HIGH STREET

Although the internet competes with the high street for shoppers' wallets, sales remain concentrated in a narrow range of sectors such as electrical products and food/groceries. In other sectors the growth of online sales has been much slower, particularly where consumers want to touch or feel a product before purchase.⁷⁸ However, the internet plays an important role in sales for these sectors too, acting as a critical medium for retailers to advertise their products to consumers.

Retailers spent almost £5 billion in 2011 on internet advertising.⁷⁹ While many consumers may choose to purchase the advertised products online, the spend is estimated to generate approximately £9 billion in high street sales annually.⁸⁰

However, a large proportion of online advertising represents a shift away from traditional channels, with around 35% of online advertising spend thought to represent an increase in overall advertising expenditure.⁸¹ The implication is that online advertising generates an economic benefit equivalent to £3.7 billion through its effect on high street sales.⁸²

Consumers are also actively using the internet to research products before venturing into the high street to make a purchase. The Autotrader website, for example, allows users to:

- read professional reviews of cars alongside the reviews left by other users of the site
- check car availability and find local dealers
- run vehicle history checks
- generate a valuation estimate for a vehicle.

Similarly, the website laterooms.com provides consumers with access to hotel rooms around the world. The site actively uses social media such as Twitter and Google Circles to discuss travel destinations with its followers – raising the profile of its hotel room aggregation service in the process. The site attributes a 9% uplift in click-through rates to its use of social media.⁸³

This process of online research followed by retail purchase accounted for £54 billion in high street sales in 2010,⁸⁴ of which an estimated £33 billion can be attributed to advertising-funded sites.⁸⁵

It is likely that most of these sales would have occurred in the absence of the internet, with the additional research primarily helping consumers buy their eventual purchase at lower prices. Consumers benefit by an estimated £1.6 billion of savings on their purchases each year as a result of research of offline purchases carried out on advertising-funded sites.⁸⁶

RESULTING IN INCREMENTAL ECONOMIC BENEFIT OF ADVERTISING THROUGH THE INTERNET

The increase in economic benefit from advertising supported internet activity is c. £ 7 billion which results from:

- Over £2 billion from search/referrals supported by advertising
- £3.7 billion from advertising's effect on high street sales; and
- £1.6 billion of savings on offline consumer purchases preceded by online research on advertising-funded sites.

PAYING FOR FREE ONLINE CONTENT WORTH BILLIONS

The internet offers consumers the opportunity to search for websites, send email, interact with friends, review products, watch videos and play games, all for free and funded by advertising.

One study estimated the value of this content to consumers as, conservatively, £5 billion per year.⁸⁷

⁷⁴ IMRG Capgemini eRetail Sales Index, quoted in 'UK shoppers spent more online in 2011', <http://internetretailing.net/2012/01/uk-shoppers-spent-16-more-in-2011-imrg/>

⁷⁵ Experian (2012), 'Experian Hitwise reveals latest UK Search Engine and Social Analysis', January. Enders (2011), 'UK consumer e-commerce trends', July.

⁷⁶ Enders (2011).

⁷⁷ This is based on an illustrative assumption that 5% of supported sales would be new sales. This appears to be a conservative assumption, given that it is easier to find certain products online and given the competitive prices available through many e-commerce sites. Sales are converted to economic benefit using multipliers and revenue/value-add ratios.

⁷⁸ Enders (2011), 'UK Consumer e-commerce trends'.

⁷⁹ IAB/PWC (2012), 'Online adspend study, full year 2011', April.

⁸⁰ Based on Nielsen estimate of online ROI of 2.18. Nielsen (2009), 'Is your marketing investment delivering expected returns?', October. In order to avoid double counting of e-commerce sales, the estimated effect is scaled down by the proportion of total retail sales that occur offline, approximately 90%, based on figures quoted in 'Online drives January growth in retail sales: new figures' <http://internetretailing.net/2012/02/online-drives-january-growth-in-retail-sales-new-figures/>. Sales are converted to economic benefit using multipliers and revenue/value-add ratios.

⁸¹ Derived from Zentner, A. (2010), 'The effect of the internet on advertising expenditures: An empirical analysis using a panel of countries', SSRN.

⁸² There is some research to suggest that the ROI on online advertising is higher than retail advertising. This implies that the approach adopted here may be conservative because it does not account for this increase in return.

⁸³ UK Internet Advertising Bureau, Case studies.

⁸⁴ BCG (2011), *The \$4.2 Trillion Opportunity: The Internet Economy in the G-20*.

⁸⁵ The attribution to advertising-funded sites was calculated as 61%, based on Ofcom analysis of online activity by consumers. This activity breakdown was then combined with a Deloitte analysis of the funding model underpinning the companies providing the relevant set of services. Ofcom (2011), 'The communications market 2011'.

⁸⁶ There is some research to suggest that internet research lowers the prices paid by consumers between 2% and 15%. A 5% assumption was adopted. Zettelmeyer, F., Scott Morton, F. and Silva-Risso, J. (2006), 'How the internet lowers prices: evidence from matched survey and automobile transaction data', *Journal of Marketing Research*, Vol. 43, May. This assumption was applied to the 'researched online purchased offline' sales that can be attributed to advertising-funded sites.

⁸⁷ BCG (2010), *The Connected Kingdom*.

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About the Advertising Association

Advertising is a vital enabler in the economy, underpinning at least £100 billion of UK GDP.

The Advertising Association unites those businesses and industries which contribute to that effect – the agencies that create and buy campaigns, the commercial media that carry them and the vast array of brands that use advertising to communicate with consumers, drive their businesses and be successful.

The Association exists as the single voice for advertising in the UK – championing its role, defending its rights and delivering its responsibilities. It works to keep advertising high on the business agenda, develop support and understanding in government and ensure that responsible practice earns the continued confidence of the public, regulators and policy-makers alike.



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