

Candidates must complete this page and then give this cover and their final version of the extended essay to their supervisor.

Candidate session number

Candidate name

School number

School name

Examination session (May or November)

May

Year

2012.

Diploma Programme subject in which this extended essay is registered: _____

(For an extended essay in the area of languages, state the language and whether it is group 1 or group 2.)

Title of the extended essay:

To what extent is it possible for there to be a welfare gain in Bexley as incomes fall?

Candidate's declaration

This declaration must be signed by the candidate; otherwise a grade may not be issued.

The extended essay I am submitting is my own work (apart from guidance allowed by the International Baccalaureate).

I have acknowledged each use of the words, graphics or ideas of another person, whether written, oral or visual.

I am aware that the word limit for all extended essays is 4000 words and that examiners are not required to read beyond this limit.

This is the final version of my extended essay.

Candidate's signature: _____

Date: 22/02/12

Supervisor's report and declaration

The supervisor must complete this report, sign the declaration and then give the final version of the extended essay, with this cover attached, to the Diploma Programme coordinator.

Name of supervisor (CAPITAL letters) _____

Please comment, as appropriate, on the candidate's performance, the context in which the candidate undertook the research for the extended essay, any difficulties encountered and how these were overcome (see page 13 of the extended essay guide). The concluding interview (viva voce) may provide useful information. These comments can help the examiner award a level for criterion K (holistic judgment). Do not comment on any adverse personal circumstances that may have affected the candidate. If the amount of time spent with the candidate was zero, you must explain this, in particular how it was then possible to authenticate the essay as the candidate's own work. You may attach an additional sheet if there is insufficient space here.

I feel that this is an impressive piece of work for an IB Diploma student. _____ was genuinely interested in investigating the essay topic and spent a vast amount of time on her research and background reading. The question, I believe, was original which meant that _____ had to be creative in finding sources and data to analyse. This she achieved successfully. The research did not always go to plan and _____ did conduct several investigations which ultimately proved inconclusive and were not included in the final copy. In these circumstances _____ dug deeper and would tackle the question from a different angle. I was _____ supervisor throughout the whole of the extended essay process and I am confident that the primary and secondary research was carried out honestly and appropriately. Eg I have seen copies of e-mails and returned questionnaires.

The question was discussed within the academic context of economics and as her teacher as well as supervisor I was pleased to see her applying theory and the language of the subject from the classroom.

_____ was meticulous in keeping to the assessment criteria but ultimately the essay has been a superb foundation for her future studies.

This declaration must be signed by the supervisor; otherwise a grade may not be issued.

I have read the final version of the extended essay that will be submitted to the examiner.

To the best of my knowledge, the extended essay is the authentic work of the candidate.

I spent 5 hours with the candidate discussing the progress of the extended essay.

Supervisor's signature: _____

Date: _____

21/2/12

Assessment form (for examiner use only)

Candidate session number

Assessment criteria		Achievement level		
		First examiner	maximum	Second examiner
A research question	<i>clear</i>	<input type="text" value="2"/>	2	<input type="text"/>
B introduction	<i>clear context</i>	<input type="text" value="2"/>	2	<input type="text"/>
<i>imaginative</i> C investigation		<input type="text" value="4"/>	4	<input type="text"/>
<i>good</i> D knowledge and understanding		<input type="text" value="3"/>	4	<input type="text"/>
<i>logical</i> E reasoned argument		<input type="text" value="4"/>	4	<input type="text"/>
<i>sound</i> F analysis and evaluation		<input type="text" value="3"/>	4	<input type="text"/>
<i>clear & precise</i> G use of subject language		<input type="text" value="4"/>	4	<input type="text"/>
H conclusion	<i>clear</i>	<input type="text" value="2"/>	2	<input type="text"/>
<i>satisfactory</i> I formal presentation, sources	<i>in-text & bibliography need completing</i>	<input type="text" value="2"/>	4	<input type="text"/>
J abstract	<i>clear</i>	<input type="text" value="2"/>	2	<input type="text"/>
K holistic judgment	<i>clear evidence</i>	<input type="text" value="3"/>	4	<input type="text"/>
Total out of 36		<input type="text" value="21"/>		<input type="text"/>

Name of first examiner: _____
(CAPITAL letters)

Examiner number: _____

Name of second examiner: _____
(CAPITAL letters)

Examiner number: _____

Assessment form (for examiner use only)

Candidate session number	
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Achievement level

Criteria	Examiner 1	maximum	Examiner 2	maximum	Examiner 3
A research question	2	2	<input type="checkbox"/>	2	<input type="checkbox"/>
B introduction	2	2	<input type="checkbox"/>	2	<input type="checkbox"/>
C investigation	4	4	<input type="checkbox"/>	4	<input type="checkbox"/>
D knowledge and understanding	3	4	<input type="checkbox"/>	4	<input type="checkbox"/>
E reasoned argument	4	4	<input type="checkbox"/>	4	<input type="checkbox"/>
F analysis and evaluation	3	4	<input type="checkbox"/>	4	<input type="checkbox"/>
G use of subject language	4	4	<input type="checkbox"/>	4	<input type="checkbox"/>
H conclusion	2	2	<input type="checkbox"/>	2	<input type="checkbox"/>
I formal presentation	2	4	<input type="checkbox"/>	4	<input type="checkbox"/>
J abstract	2	2	<input type="checkbox"/>	2	<input type="checkbox"/>
K holistic judgment	3	4	<input type="checkbox"/>	4	<input type="checkbox"/>
Total out of 36	31		<input type="checkbox"/>		<input type="checkbox"/>

Name of examiner 1: _____ (CAPITAL letters)	Examiner number: _____
Name of examiner 2: _____ (CAPITAL letters)	Examiner number: _____
Name of examiner 3: _____ (CAPITAL letters)	Examiner number: _____

IB Cardiff use only: B:

IB Cardiff use only: A: PSIS2 Date: 21/05

**To what extent is it possible for there to be a welfare gain in Bexley
as incomes fall?**

Extended Essay

Word count: 3989



Abstract

Currently, the recession and changes to government policies, particularly in the recent budget, are resulting in lower incomes in the UK and Bexley. Although people have less disposable income, society may benefit. As income falls, demand for goods and services changes. A fall in demand for demerit goods could cause a welfare gain: they create a welfare loss in society. An increase in consumption of merit goods could also cause a welfare gain. An investigation into these changes in demand would establish the potential welfare gain and answer the question: **'to what extent is it possible for there to be a welfare gain in Bexley as incomes fall?'**

Tobacco is a demerit good and the effect of lower incomes on demand in Bexley was investigated by carrying out questionnaires in newsagents and asking the opinion of a stop smoking service. The change in consumption of alcohol (another demerit good) was found in order to establish whether less is demanded due to a fall in income. This was done by questioning pubs and newsagents about their sales of alcohol and a member of Bexley Alcohol Strategy about his view on how income affects alcohol consumption. Furthermore, the change in demand for leisure centres (merit goods) as income falls was found by interviewing a member of Bexley council and contacting two leisure centres in Bexley.

It was found that demand for both tobacco and alcohol have decreased as a result of lower incomes in Bexley which means there could be a welfare gain as incomes fall. Use of leisure centres has increased as incomes have fallen, which could also result in a welfare gain. In conclusion, although there may be welfare losses, it is certainly possible for there to be a welfare gain in Bexley as incomes fall.

Word count: 296

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Introduction

In the UK, the recession and changes to government policies have caused a fall in household income. The recession (a period of economic decline with a fall in GDP for two or more consecutive quarters), which began in 2007, caused unemployment, lower productivity and less investment, which is still causing lower household income. There were changes to the tax and benefit system, public spending and other aspects in April 2011, the start of the new financial year, which lowered UK household income and thus income in the borough of Bexley.

Lower incomes can be disadvantageous or create welfare losses in society. However, it would be interesting to find out if there is any possibility of a welfare gain by investigating: **'to what extent is it possible for there to be a welfare gain in Bexley as incomes fall?'** Welfare can be defined as the state of wellbeing or quality of life. Therefore, a welfare gain involves an overall benefit to society when something aids or promotes our wellbeing. It is generally assumed that increased income results in increased welfare because people can consume more goods and services. However, this is not necessarily the case, as shown by the government's 'happiness index' that is used as a measure of wellbeing through health and the environment for example.¹ R4

Although there may be disadvantages of lower incomes for individuals, it is important to find if there are potential benefits to society as it would benefit all those living in Bexley. As incomes fall, people have less disposable income (income available to spend after taxes and other mandatory charges have been deducted) and so their demand for certain goods and services changes. It is possible to find out the extent to which it is possible for there to be a welfare gain in Bexley by considering these changes.

¹The Independent (2010). Prime Minister unveils 'happiness index'.
<http://www.independent.co.uk/news/uk/politics/prime-minister-unveils-happiness-index-2143950.html>

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Change in Income

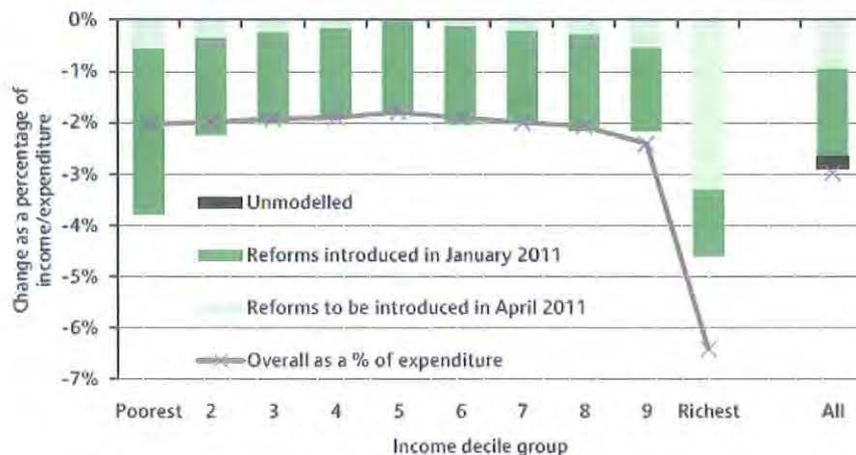
The effects of the recession and changes in government policies, amongst others, are causing a decrease in average incomes in the UK.

The recession greatly impacted people's incomes; unemployment reached an 11-year high in 2008.² A study by the BBC and The Institute for Fiscal Studies (IFS), an independent research organisation, showed real income (income accounting for inflation) of the UK's poorest households fell by 2.1% and the richest by 3.8% during the recession.³

Average UK household income could fall by 3% in 2011 caused by the continuing effects of the recession and lower wage increases.⁴ Disposable income can fall by almost £780 due to tax increases and government spending cuts.⁵

In April 2011 the personal tax allowance, alcohol and tobacco excise duties and National Insurance level increased. Households are approximately £200 worse off as a result of this.⁶

Figure 12.3. Distributional impact of reforms introduced in January 2011 and to be introduced in April 2011 by income decile group



The IFS graphed the fall in income for different decile groups caused by measures introduced in January 2011 and being introduced in April.⁶ The richest households face a fall in expenditure up to 4.5% more than the poorest. Generally, incomes fall by 3%, suggesting people will spend less.

The fall in incomes in the UK indicates that incomes in Bexley have also fallen. In Bexley, the recession increased the number of people claiming unemployment benefits leading to a fall in household incomes.⁷ Interestingly, the highest percentage change occurred in the south of Bexley, considered to have higher income areas than the north. This is consistent with the fact that the richest households in the UK had a greater decrease in income than the poorest. Therefore, incomes have fallen in Bexley.

²BBC News (2008). Unemployment reaches 11-year high. <http://news.bbc.co.uk/1/hi/business/7724084.stm>

³BBC News (2011). Poorest 'hit hard by recession', says BBC-IFS study. <http://www.bbc.co.uk/news/business-12790525>

⁴BBC News (2011). Household incomes in UK 'may return to 2004 levels'. <http://www.bbc.co.uk/news/business-13384857>

⁵BBC News (2011). UK households 'face £780 drop in disposable incomes'. <http://www.bbc.co.uk/news/business-13264496>

⁶Browne, J (2011). The impact of tax and benefit changes to be implemented in April 2011. Institute for Fiscal Studies. http://www.ifs.org.uk/pr/gb_ch12_chapter.pdf

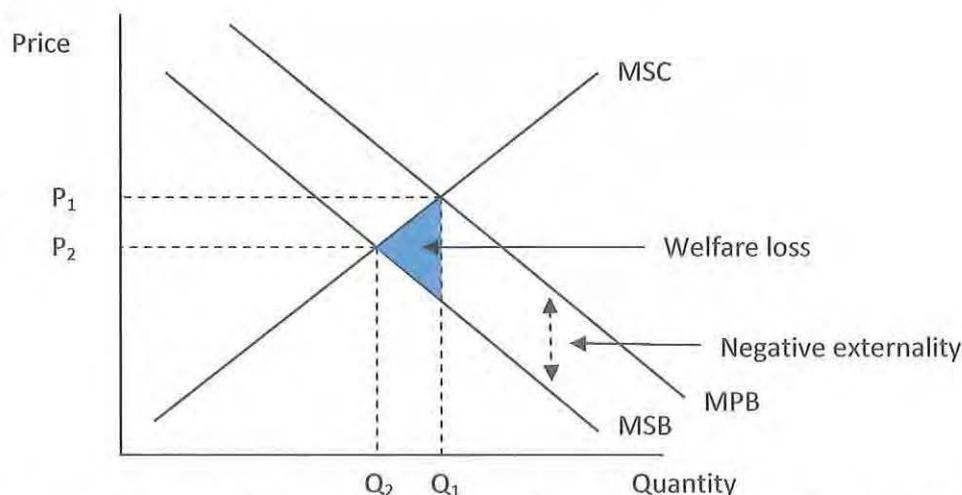
⁷London Borough of Bexley. Social and environmental context. Charts – Impact of recession. Slide 1. <http://www.bexlev.gov.uk/index.aspx?articleid=2341>

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Merit and Demerit Goods

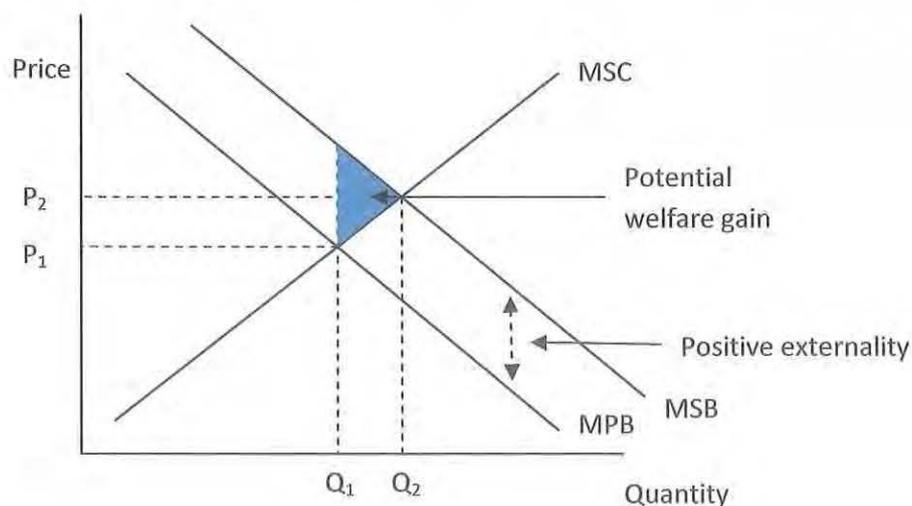
As income falls, expenditure on different goods and services changes. In order to find out whether society can benefit from this, i.e. whether there can be a welfare gain, it is necessary to find out how consumption of merit goods (goods or services that are under-provided by the market and under-consumed) and demerit goods (goods that are over-provided by the market and thus over-consumed) has changed.

Demerit goods are considered to be harmful by the government to consumers and society because they usually have negative externalities i.e. detrimental effects on third parties when produced or consumed. The over-supply of these is a case of market failure: resources are not allocated optimally.



A negative externality is created when a demerit good is consumed because the individual benefit (MPB: marginal private benefit) is greater than the benefit to society (MSB: marginal social benefit). Consumers will consume Q_1 , where MSC (marginal social cost) = MPB to maximise their utility. However, the socially efficient level is where $MSC = MSB$, Q_2 . The over-consumption of Q_1 to Q_2 creates a welfare loss to society (the blue triangle). Therefore, lower consumption of demerit goods would further the wellbeing of society and thus there could be a welfare gain.

Merit goods are beneficial for individuals and society and therefore consumption should increase. This is a case of market failure because supply and consumption of merit goods is too low.

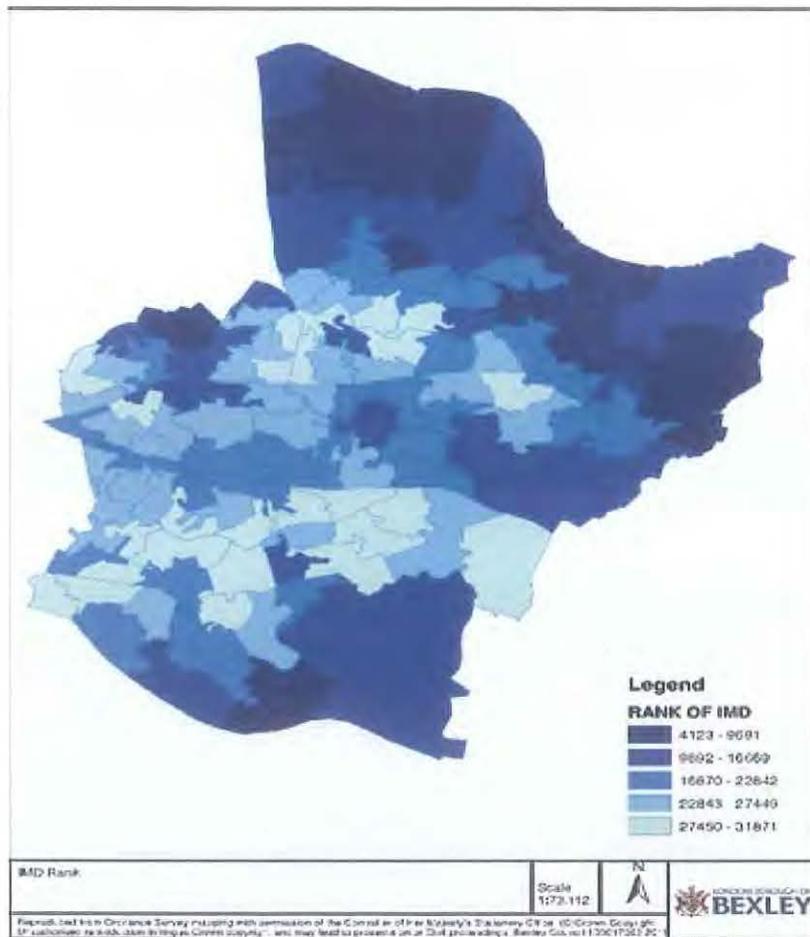


When consumed, merit goods provide external benefits i.e. positive externalities. This is because MSB is greater than MPB. In a free market however, people will consume a quantity of Q_1 at a price of P_1 , although the socially efficient level of consumption is Q_2 . Due to the lack of consumption, there is a potential welfare gain (the blue triangle) where it is possible to increase the benefits to society. Therefore, there could be a welfare gain if more merit goods were consumed.

Consequently, by investigating whether people are consuming more or less merit and demerit goods as incomes fall, it is possible to find out whether there can be a welfare gain in society and the extent to which this is possible. However, the effects of reduced incomes vary from higher to lower income households. It is necessary to consider the changes in demand in both higher and lower income areas in Bexley: the conclusion for the whole of Bexley will be more accurate.

This can be done by looking at the Index of Multiple Deprivation 2010 for Bexley. It shows the level of deprivation in small areas using 38 indicators (1 being the most deprived and 32,482 being the least deprived). The map shows the north of Bexley as more deprived, likely on lower incomes, and the south being less deprived.

Bexley Index of Multiple Deprivation 2010 Map⁸



⁸London Borough of Bexley. Social and environmental context. <http://www.bexley.gov.uk/index.aspx?articleid=2341>

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Tobacco

Tobacco is a demerit good as it is harmful to individuals as well as others, for example the strain put on the NHS or passive smokers. Its addictive nature means it is a necessity for many people. The demand curve for tobacco is inelastic (insensitive to changes in price or income) because it is difficult to give up and people are likely to demand cigarettes regardless of changes in income or price. There are also several studies suggesting that it is becoming an inferior good in the UK, i.e. demand falls when income increases.⁹

Table 2.13 Household expenditure¹ on tobacco at current prices, 1980 to 2009

United Kingdom			
	£ million at current prices / Percentages		
	Household expenditure on tobacco ²	Total household expenditure ²	Expenditure on tobacco as a percentage of expenditure
1981	5,515	148,052	3.7
1982	5,881	162,228	3.6
1983	6,209	178,027	3.5
1984	6,622	191,390	3.5
1985	7,006	209,382	3.3
1986	7,485	232,095	3.2
1987	7,665	255,361	3.0
1988	7,936	288,346	2.8
1989	8,170	315,822	2.6
1990	8,649	343,041	2.5
1991	9,649	364,586	2.6
1992	10,280	384,131	2.7
1993	10,759	406,808	2.6
1994	10,933	426,710	2.6
1995	11,519	448,720	2.6
1996	12,265	482,041	2.5
1997	12,648	512,482	2.5
1998	13,363	546,888	2.4
1999	14,292	582,371	2.5
2000	14,222	616,558	2.3
2001	14,458	647,778	2.2
2002	14,622	680,964	2.1
2003	15,270	714,608	2.1
2004	15,305	749,867	2.0
2005	15,377	784,140	2.0
2006	15,721	817,036	1.9
2007	15,914	859,268	1.9
2008 ⁹	15,982	891,371	1.8
2009	16,257	875,234	1.9

The table shows how household expenditure on tobacco from 2008 to 2009 increased by approximately 1.72% from £15,982 to £16,257, whilst total household expenditure, or disposable income, fell by roughly 1.81%.¹⁰ Therefore tobacco is an inferior good. The income elasticity of demand (YED), the responsiveness of demand to a change in income, can also be calculated:

$$\begin{aligned} \text{YED} &= \frac{\% \Delta Q_D}{\% \Delta Y} \\ &= \frac{1.72}{-1.81} \\ &= -0.95 \end{aligned}$$

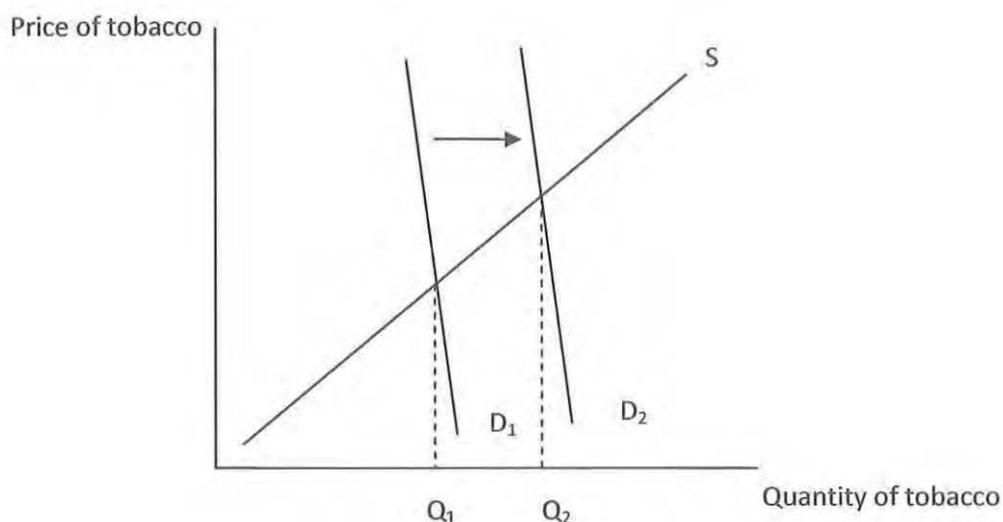
Demand was therefore income inelastic between 2008 and 2009, during the recession.

As an inferior good, a fall in income increases consumption; the demand curve shifts rightwards from D_1 to D_2 . The quantity demanded increases from Q_1 to Q_2 .

⁹Czubek, M and Johal, S (2010). Econometric Analysis of Cigarette Consumption in the UK. HM Revenue & Customs. Available: <http://www.hmrc.gov.uk/research/cig-consumption-uk.pdf>

¹⁰NHS Information Centre (2010). Statistics on Smoking: England, 2010. Table 2.13.

[http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles/smoking/statistics-on-smoking-in-england-2010-\[ns\]](http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles/smoking/statistics-on-smoking-in-england-2010-[ns])



It is important to be aware that the income elasticities of demand will be different for low income earners compared to high income earners and they will also vary from the short-run to the long-run as people could give up smoking in the long-run or can not afford to buy cigarettes in the short-run.

The excise duty (a tax charged on a particular good, usually with negative externalities) on tobacco rose recently to lower consumption, and so it is possible that this increase in price has been the cause of any changes in demand. However, in the investigation we assume *ceteris paribus*.

Questionnaires (see Appendix 1) carried out at 12 newsagents in different parts of Bexley (6 in higher income areas and 6 in lower income areas) showed that demand for cigarettes has decreased slightly. 2/3 of the newsagents said their sales per week had remained constant in the last three months, when the budgetary measures were implemented. The remaining 1/3 said their sales per week had decreased, although not drastically: by 1-10%. Furthermore, 10 out of the 12 newsagents asked did not notice any change in demand during the recession. The majority also said that more than 50% of their customers are buying cheaper brands of cigarettes. Therefore, consumption of cigarettes may be unchanged and people are simply substituting higher priced cigarettes for lower priced ones. In this case, the cross elasticity of demand between different brands of cigarettes may be elastic. The results suggest that demand has decreased in some cases in Bexley, although not greatly. It is however important to realise that the questionnaires were carried out on a small scale and reliability of the results may be limited.

Smokefree Bexley, part of the nationwide NHS Stop Smoking Services in Bexley, claims that demand for cigarettes is highly income inelastic and as a result, the budget has probably not altered consumption.¹¹ During the recession however, smoking levels declined by a small amount in Bexley. They feel that the level of smoking in Bexley does fall, yet slowly. Assuming that this is the case, as they are an experienced and reliable source of information, tobacco is a normal good in Bexley and demand is highly income inelastic.

Consumption of tobacco in Bexley has remained fairly constant or decreased slightly, in spite of the fall in incomes. The inelasticity of demand may be a reason for this as the fall in income may not have been sufficient for there to be a noticeable change in quantity demanded.

In the UK however, demand for tobacco is increasing as expected.

¹¹Email with Smokefree Bexley. stopsmoking@bexley.nhs.uk. 28th July 2011.

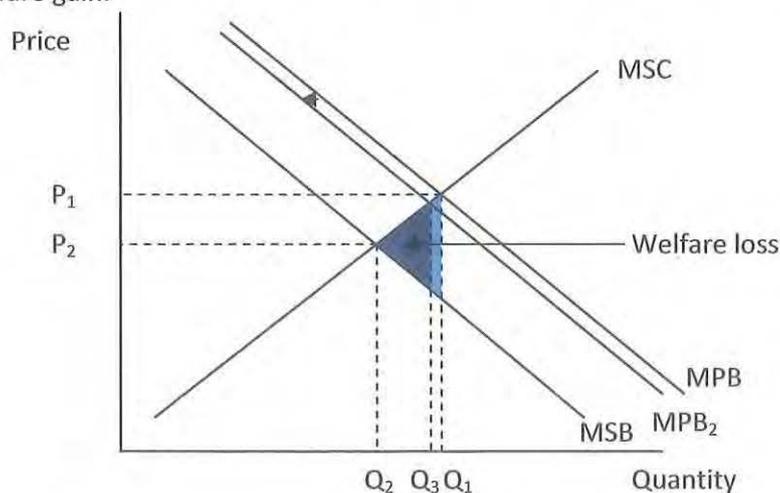
Consumer expenditure on tobacco¹²

	Cigarettes	Other Tobacco Products £ billion	Total
2000	10.8	0.9	11.7
2001	12.1	1.0	13.1
2002	11.5	1.0	12.5
2003	11.3	1.0	12.3
2004	11.3	1.0	12.3
2005	11.4	1.0	12.4
2006	11.4	1.1	12.5
2007	11.5	1.1	12.6
2008	11.7	1.4	13.1
2009	12.0	1.4	13.4
2010 (p)	12.6	1.4	14.0

According to the Tobacco Manufacturers' Association, expenditure on tobacco in the UK continued to rise throughout the recession. From 2007 to 2010, total expenditure increased by £1.4 billion although incomes fell during this time. This also supports the view that tobacco is an inferior good in the UK.

Furthermore, YouGov, a research company measuring public opinion and consumer behaviour, published an article in 2010 that revealed that 15% of the smoking population were smoking more than they were in 2009. Overall, 1.6 million people increased the amount they smoke from 2009 to 2010.¹³

Although demand increases in the UK as incomes fall, Bexley seems to be an anomaly, possibly due to variations in elasticity of demand. It is also possible that there is little effect on tobacco in the short-run compared to the long-run or that it is a normal good in Bexley. The research suggests consumption of tobacco in Bexley has remained fairly constant, but decreased slightly. Because of this, there has been a slight benefit to society because the welfare loss could have decreased by a small amount (to the dark blue triangle). However, it can be concluded that it is possible for there to be a welfare gain.



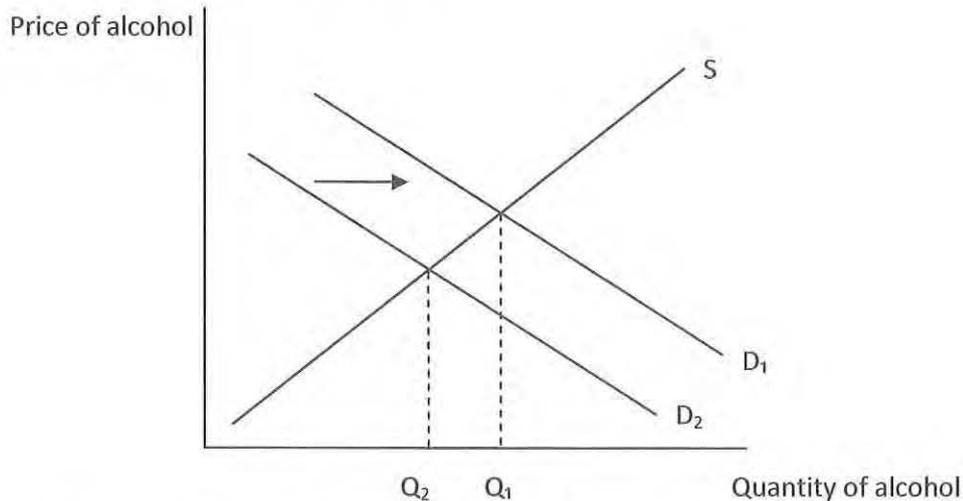
¹²Tobacco Manufacturers' Association. Consumer expenditure. <http://www.the-tma.org.uk/tma-publications-research/facts-figures/consumer-expenditure/>

¹³YouGov (2010). Cigarettes and alcohol. <http://today.yougov.co.uk/life/cigarettes-and-alcohol>

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Alcohol

Alcohol can also be considered a demerit good as it harms individuals and society. It is a normal good because those on higher incomes are more likely to drink frequently than lower income earners: consumption increases as income rises.¹⁴ It can be a necessity (inelastic demand) or a luxury for some individuals (more elastic demand). Elasticities vary from the short-run to the long-run because demand is more elastic in the long-run as people respond to the change in income/price. As a normal good, demand should fall as incomes fall. Demand shifts leftwards to D_2 and quantity demanded falls from Q_1 to Q_2 .



Questionnaires (see Appendix 2) carried out in 10 pubs in Bexley: 5 in high income areas and 5 in low income areas suggested that demand for alcohol has decreased. They were valid since 100% said that 81-100% of their customers were from the local area, although this is based on their opinion so are not completely reliable. They all also said that the number of customers per week had decreased in the last three months; 50% experienced a fall of 11-20%. Similarly, the number of sales per week in the last three months has also decreased for 100% of the pubs. However, the majority this time, 40%, said sales had fallen by 21-30%. The rest experiencing falls of 11-20% or 31-40%. There was a noticeable decrease in demand for alcohol during the recession by 100% of the pubs. Sales of alcohol per week have also decreased in newsagents but by a lesser amount than pubs, with only roughly 16.7% experiencing a fall of 21-30% in the last three months. The majority faced a fall of 1-10% (see Appendix 1). The questionnaires indicate that consumption of alcohol is responsive to a change in income and has decreased in Bexley as a result of this.

According to Graham Lettington, drug and alcohol strategy manager for Bexley Alcohol Strategy, demand from alcoholics is very income inelastic whereas demand by casual drinkers is much more elastic.¹⁵ The increase in people they help in Bexley indicates that more people are giving up drinking, implying demand for alcohol has decreased or at least become more elastic. In his experience, a fall in household income does lead to an overall decrease in consumption, particularly in casual drinkers. This is likely to be true since he is a reliable source who has knowledge of alcohol consumption in Bexley.

Consumption in Bexley has therefore decreased as a result of falling incomes and appears to be fairly income elastic.

¹⁴ BBC News. High income households among biggest alcohol drinkers.
<http://www.bbc.co.uk/news/health-12008862>

¹⁵ Email with Lettington, G. Graham.Lettington@bexley.gov.uk. Alcohol consumption in Bexley. 21st June 2011.

On the other hand, 60% of pubs questioned felt that in recent times, people are buying alcohol from supermarkets instead of pubs. Supermarkets can exploit economies of scale and cross-subsidise the sale of alcohol products, whereas pubs, being on a smaller scale and having lower profit margins, are not able to do so and their prices rise faster: people may buy from supermarkets instead.¹⁶ If this is occurring, consumption may not have decreased in reality, particularly if the cross elasticity of demand (the responsiveness of demand for one good to a change in the price of another good) for alcohol between supermarkets and pubs is elastic.

However, since demand has also decreased in the UK as incomes fall, it can be assumed that it is unlikely that this is taking place.

Table 2.7 Household consumption of alcoholic drinks, 1992 to 2009¹

United Kingdom		ml per person per week					
	All alcoholic drinks	Beer ²	Cider and perry	Wine ³	Spirits ⁴	Alcopops ⁵	Other ^{1,6}
Consumption within the home							
1992	527	298	47	152	30	.	.
1993	536	297	44	164	32	.	.
1994	552	311	52	162	28	.	.
1995	627	338	77	180	32	.	.
1996	656	351	82	198	34	.	.
1997	653	365	58	196	32	2	.
1998	645	340	61	212	30	1	.
1999	640	329	60	213	35	4	.
2000	725	388	58	232	37	10	.
2001/02	735	386	55	236	39	18	.
2002/03	726	380	50	239	39	18	.
2003/04	792	416	64	251	41	19	.
2004/05	763	395	55	261	38	14	.
2005/06	779	403	49	274	39	13	.
2006 ⁷	760	393	59	255	41	12	.
2007	772	384	75	263	42	8	.
2008	706	349	69	242	38	8	.
2009	744	371	82	245	40	7	.
Consumption outside the home⁸							
2001/02	733	623	21	20	21	34	15
2002/03	704	592	20	20	21	36	15
2003/04	664	557	20	21	22	25	21
2004/05	616	515	18	22	20	20	22
2005/06	597	499	16	22	20	15	25
2006 ⁷	561	459	24	23	18	11	25
2007	503	400	28	19	17	8	31
2008	443	358	21	18	14	6	25
2009	446	342	28	26	16	6	27

The figures generated by the NHS show the household consumption of alcohol in the UK from 1992 to 2009.¹⁷ Consumption of all alcoholic drinks in 2007 was 1275ml/person/week. In 2009, this had fallen to 1190ml/person/week, a decrease by approximately 6.67%. Alcohol consumption therefore decreased in the recession as incomes fell.

¹⁶(2010). Review of alcohol taxation. HM Treasury. Page 17. Available: http://www.hm-treasury.gov.uk/d/alcohol_tax_review301110.pdf

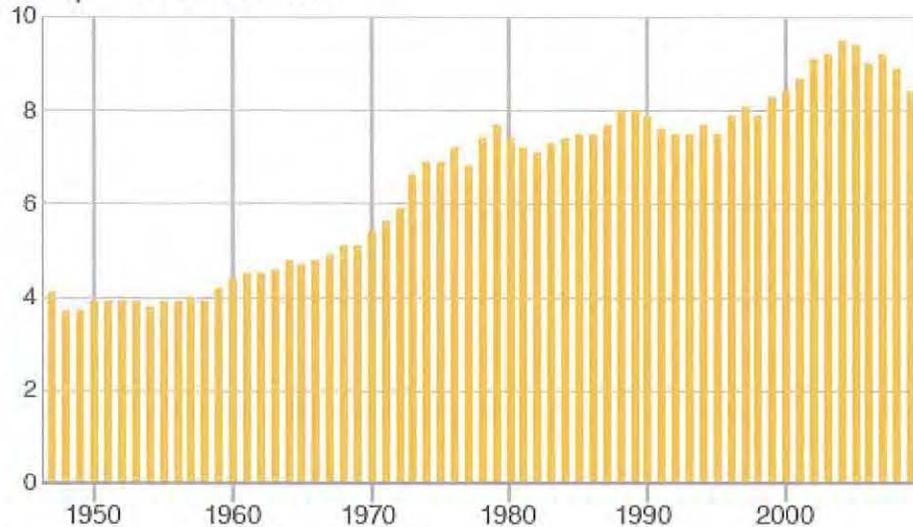
¹⁷NHS Information Centre (2011). Statistics on Alcohol: England, 2011 tables. Table 2.7.

[http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles/alcohol/statistics-on-alcohol-england-2011-\[ns\]](http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles/alcohol/statistics-on-alcohol-england-2011-[ns])

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Alcohol consumption in the UK - 1947-2009

Litres per head - 100% alcohol

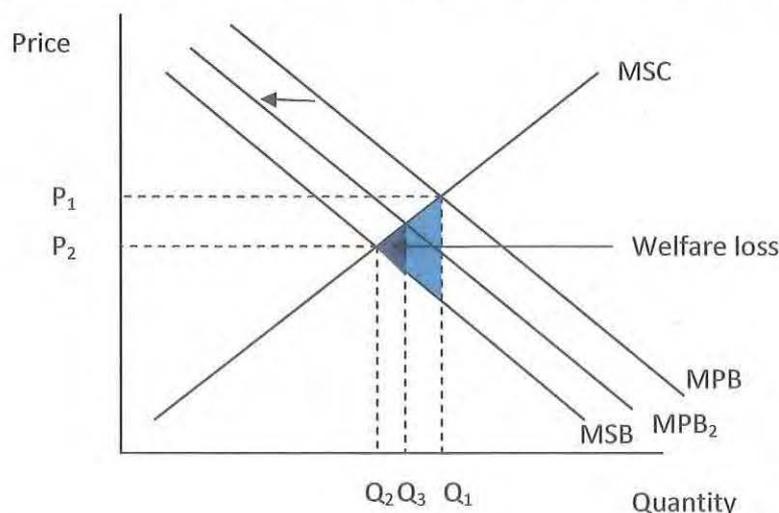


Source: British Beer and Pub Association Statistical Handbook 2010

The British Beer and Pub Association graphed alcohol consumption in the UK from 1947 to 2009.¹⁸ It shows a fall in alcohol consumption during the recent recession. Moreover, it illustrates how alcohol consumption also fell in the previous recessions, in the early 1980s and 1990s. Also, from 2008-2009, consumption fell by 6% in the UK. Therefore, it is reasonable to assume that alcohol is fairly income elastic since this is the case historically: there is an evident fall in consumption when there is a recession.

Furthermore, a survey carried out by Jones Lang LaSalle Hotels found that currently, 25 pubs are closing every week. 34% of licensees, the majority, also mentioned that the decline in disposable income was their main concern.¹⁹ It is likely that the fall in incomes, undoubtedly affected by the recent budget, has caused a decline in the use of pubs and consumption of alcohol. Although this may be beneficial to society due to the welfare gain, pub owners can lose their business or there may be more people unemployed, which is harmful to society.

In conclusion, demand for alcohol in Bexley has decreased as incomes fell in the recession. Consequently, there could be a reduction in the welfare loss to society since less alcohol is consumed as incomes fall (the dark blue triangle) and therefore there can be a welfare gain.



¹⁸BBC News (2011). Why is alcohol consumption falling? <http://www.bbc.co.uk/news/magazine-12397254>

¹⁹Morning Advertiser (2011). Pub closures at 25 a week, sales declining.

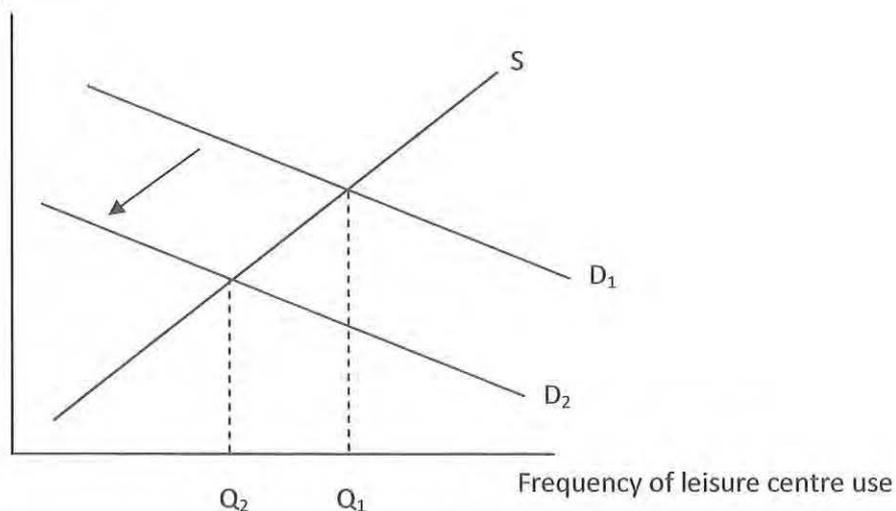
<http://www.morningadvertiser.co.uk/news.ma/article/91295>

income elastic

Leisure Centres

Leisure centres are merit goods because they benefit individuals by improving their health and benefit society as there may be less people needing to use government services such as the NHS i.e. there are positive externalities. It is logical to assume that since they are luxuries, they are normal goods and hence relatively income elastic.²⁰ As incomes decrease, use of leisure centres should also decrease from Q_1 to Q_2 .

Average price of leisure centre services



The elasticity of demand depends on the proportion of household income that is spent on leisure services. If leisure centres made up a fairly low proportion of household income, demand is likely to be more elastic as it is more disposable and vice versa. This could also be the case in the long-run as people can not continue to spend their disposable income on such a luxury.

According to Councillor Peter Catterall, cabinet member for leisure, overall there is some increase in demand for leisure centres in Bexley, although no drastic changes (see Appendix 3).²¹ As leisure centres operate under a public private partnership (PPP), Bexley council financially supports them but are finding ways to reduce this cost. A reduction in funding for leisure centres would inevitably reduce the quantity or quality of their services, causing less consumption. However, this has not yet occurred. Also, real prices have remained fairly constant in spite of the recession so it is unlikely that price has influenced demand. Furthermore, according to him, the income changes in Bexley have slightly increased demand for leisure centres.

In Sidcup leisure centre (see Appendix 3), located in a higher income area of Bexley, there seems to be 'no significant effect' of falling incomes.²² However, the number of consumers 'continues to climb year on year,' including during the recession. Funding is not an issue and prices have only increased in line with VAT. People seem to be experiencing the effects of falling disposable income as they are waiting for discounts and promotions. However, this has not had a huge effect on their level of consumption. ✓

²⁰ Levell, P and Oldfield, Z (2011). The Spending Patterns and Inflation Experience of Low-Income Households over the Past Decade. Institute for Fiscal Studies. <http://www.ifs.org.uk/comms/comm119.pdf>

²¹ Conversation with Peter Caterall. 6th June 2011.

²² Email with Sidcup Leisure Centre. sidcup@parkwood-leisure.co.uk. Leisure centre enquiry. 1st June 2011.

Erith leisure centre (see Appendix 3), situated in a lower income area (see p.7), has also experienced a small increase in demand.²³ Similarly, amount of funding has not had any effect on the services they provide and prices have not risen apart from the VAT rise. According to them, people find leisure centres too valuable to give up despite lower incomes and consumption has slightly increased.

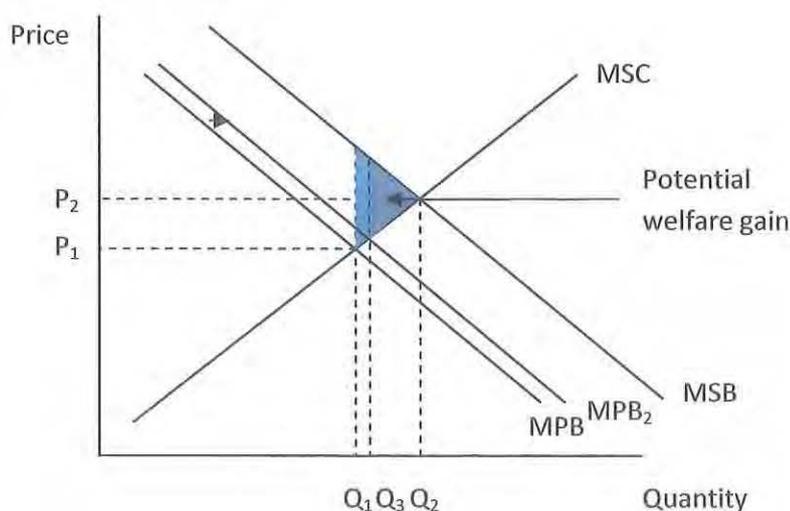
Therefore, demand has increased slightly in leisure centres in Bexley. This may vary in the long-run if funding is cut. However, presently there is a benefit to Bexley council as their revenue increases. Income is most likely the factor that influences consumption because price has only risen by a small amount. Overall, demand for leisure centres in Bexley has increased slightly.

There is a similar situation occurring in the UK. The Fitness Industry Association stated that the health and fitness industry in the UK increased by 4% in market value throughout the recession, with the public sector growing by 5.8%. From this it is evident that the demand in the health and fitness industry is fairly income inelastic.²⁴

The Financial Times reported an increase in the number of people using leisure centres in 2009. Revenue for public leisure centres was predicted to increase by £0.03billion: demand for leisure centres increased as incomes fell.²⁵

Demand for leisure centres has increased in both Bexley and the UK. Lower incomes cause a decrease in demand, as they are normal goods, however demand has still not risen. This means that demand has not increased as much as it would have, had incomes not fallen i.e. if incomes had continued to increase, demand would have increased to a greater extent.

The increase in demand for leisure centres (a merit good) in Bexley can result in a welfare gain. The dark blue triangle is now the potential welfare gain, which has been reduced. However, if incomes had not fallen, there would have been a greater welfare gain as consumption would have increased further.



²³Email with Erith Leisure Centre. erith@parkwood-leisure.co.uk. Leisure centre enquiry. 3rd June 2011.

²⁴Fitness Industry Association (2011). Fitness Industry stands strong despite economic trend, shows the findings of the UK state of The Fitness Industry 2011 report. <http://www.fia.org.uk/media-centre/press-announcements/fitness-industry-stands-strong-despite-economic-trend-shows-the-findings-of-the-uk-state-of-the-fitness-industry-2011-report.html?phpMyAdmin=71d383e8c087ef038f51f2124931a195>

²⁵Financial Times (2009). Public leisure centres enjoy boom. <http://www.ft.com/cms/s/0/d1617460-18a0-11de-bec8-0000779fd2ac.html#ixzz1UdGQGrKT>

*income effect
substitution*

Conclusion

The question: 'to what extent is it possible for there to be a welfare gain in Bexley as incomes fall?' can be answered by investigating changes in demand for merit and demerit goods in Bexley due to falling incomes.

To find out the change in demand for tobacco in Bexley as incomes fall, questionnaires were carried out at 12 newsagents in different parts of Bexley indicating consumption has fallen slightly. Although valid they may be fairly unreliable: they were carried out on a small scale and answers were based on their opinion. Smokefree Bexley, who are more accurate and reliable because they are in a position to know about tobacco consumption in Bexley, confirmed however that consumption has fallen slightly. This argument is contradicted by evidence which shows demand has increased in the UK. Although there is no strong evidence to suggest demand has decreased, considering elasticities will vary in different areas and Smokefree Bexley and the newsagents are more reliable since they are situated in Bexley, it can be assumed that demand has decreased slightly as incomes have fallen. Therefore, it is possible for there to be a welfare gain in Bexley as incomes fall in this case.

Questionnaires carried out in pubs and newsagents indicated that demand for alcohol has decreased, although they may be unreliable because this is their opinion. However, considering there are great similarities in their answers, it is likely to be correct. Graham Lettington's opinion, which is the most relevant and reliable because his role involves being informed about alcohol consumption, also agrees that demand falls in Bexley as incomes fall. Although people may be purchasing alcohol from supermarkets instead of pubs, it is unlikely because demand also fell in the UK in the recent and previous recessions. Although this is not necessarily indicative of alcohol consumption in Bexley, the extent of the similarities in the evidence means alcohol consumption has almost certainly decreased in Bexley as incomes fall: there could be a welfare gain.

Councillor Peter Catterall has the most valid, accurate and reliable opinion as he is required to have knowledge of changes in demand for leisure centres. He, as well as both Erith and Sidcup leisure centres, states that demand has increased, predominantly caused by a fall in income since price and funding have remained fairly constant. Demand has also risen in the UK, indicating that this should also be the case in Bexley. A change in price of alternative leisure activities could affect this. However, there is sufficient evidence to conclude that it is certainly possible for there to be a welfare gain in society in this case.

There are however certain inaccuracies in the investigation. Most importantly, it was carried out on three goods/services and the results are not indicative of demand for all merit and demerit goods. Furthermore, many factors influence demand and it is difficult to establish the extent to which income affects demand. Also, as incomes change in the long-run, a short-run welfare gain would not remain constant. The investigation assumes that a benefit to society means a benefit for individuals, yet lower household income is disadvantageous due to less expenditure. This can harm local firms, pubs and newsagents could close in the long-run, leading to unemployment, as well as saving being a leakage from the circular flow of income. Consequently, the opportunity cost of lower incomes could be greater than the welfare gain. However, the investigation is establishing the potential gain.

Overall, although the investigation is not completely accurate, the evidence suggesting there can be welfare gain (considering demand for tobacco, alcohol and leisure centres) is sufficient to conclude that it is certainly possible for there to be a welfare gain in Bexley as incomes fall.

I concur with the Supervisor in that this is an excellent essay & was based on an intriguing RQ

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no economics text book included

Appendices

Appendix 1: Newsagents questionnaire

1. By what percentage have your sales of tobacco products per week changed in the last three months?

Increased: 1-10 11-20 21-30 31-40 41-50 51-60 61-70 71-80 81-90 91-100

Remained the same: 0

Decreased: 1-10 11-20 21-30 31-40 41-50 51-60 61-70 71-80 81-90 91-100

2. Have more than 50% of your customers begun to buy cheaper brands of cigarettes in the last 3 months?

Yes No

3. During the recession, was there any noticeable change in sales of cigarettes?

Yes No

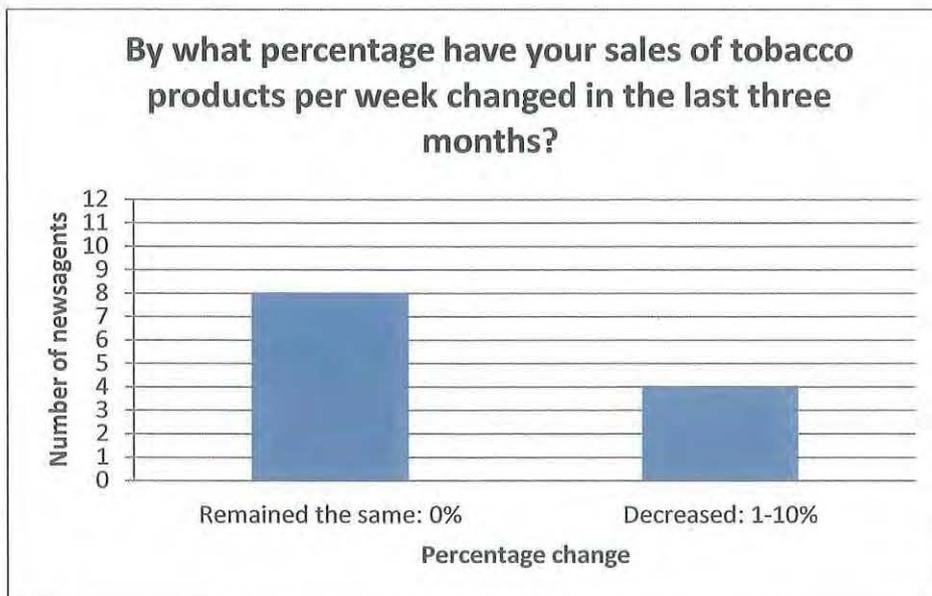
4. By what percentage have your sales of alcohol per week changed in the last three months?

Increased: 1-10 11-20 21-30 31-40 41-50 51-60 61-70 71-80 81-90 91-100

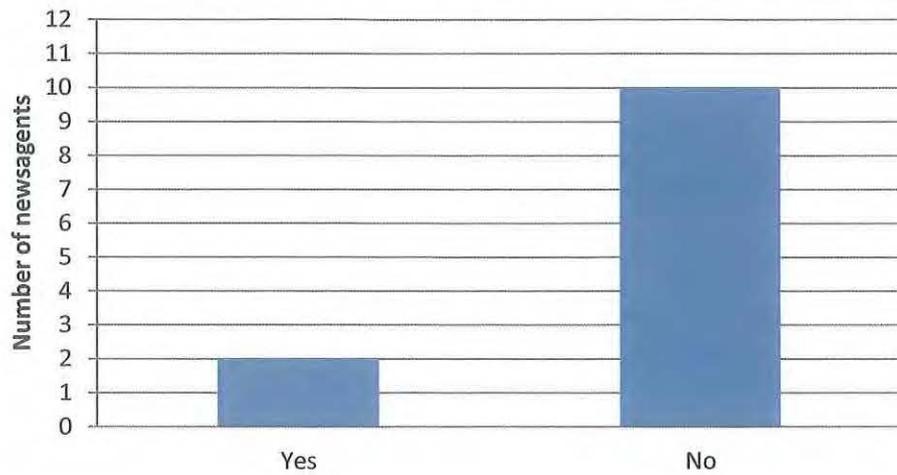
Remained the same: 0

Decreased: 1-10 11-20 21-30 31-40 41-50 51-60 61-70 71-80 81-90 91-100

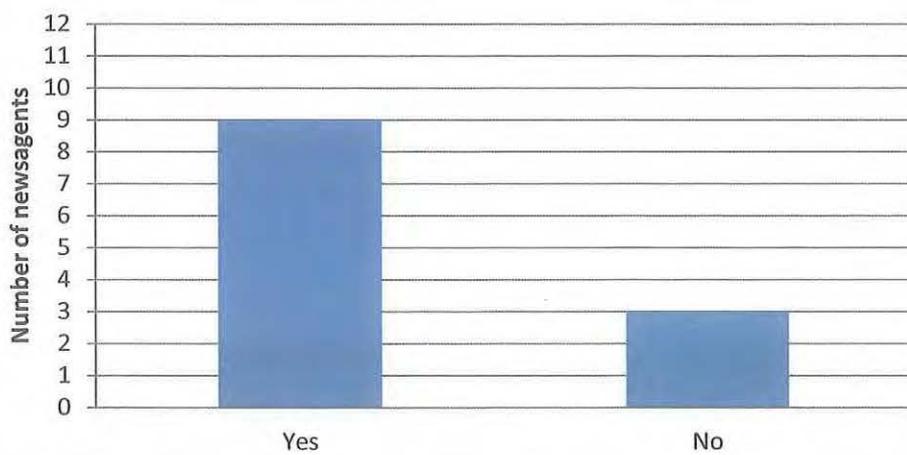
Results



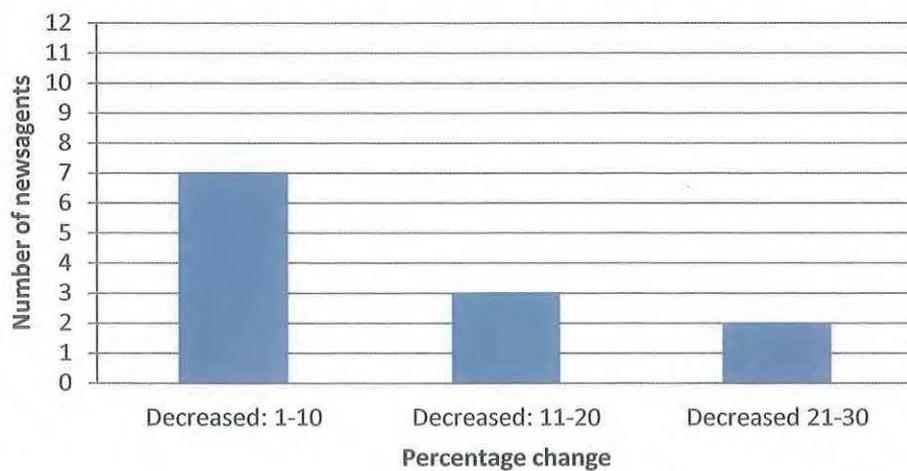
During the recession, was there any noticeable change in sales of cigarettes?



Have more than 50% of your customers begun to buy cheaper brands of cigarettes in the last 3 months?



By what percentage have your sales of alcohol per week changed in the last three months?



Appendix 2: Pub questionnaire

1. Approximately what percentage of your customers are from the local area?

0-20 21-40 41-60 61-80 81-100

2. By what percentage have the number of customers per week changed in the last three months?

Increased: 1-10 11-20 21-30 31-40 41-50 51-60 61-70 71-80 81-90 91-100

Remained the same: 0

Decreased: 1-10 11-20 21-30 31-40 41-50 51-60 61-70 71-80 81-90 91-100

3. By what percentage have the number of sales per week changed in the last three months?

Increased: 1-10 11-20 21-30 31-40 41-50 51-60 61-70 71-80 81-90 91-100

Remained the same: 0

Decreased: 1-10 11-20 21-30 31-40 41-50 51-60 61-70 71-80 81-90 91-100

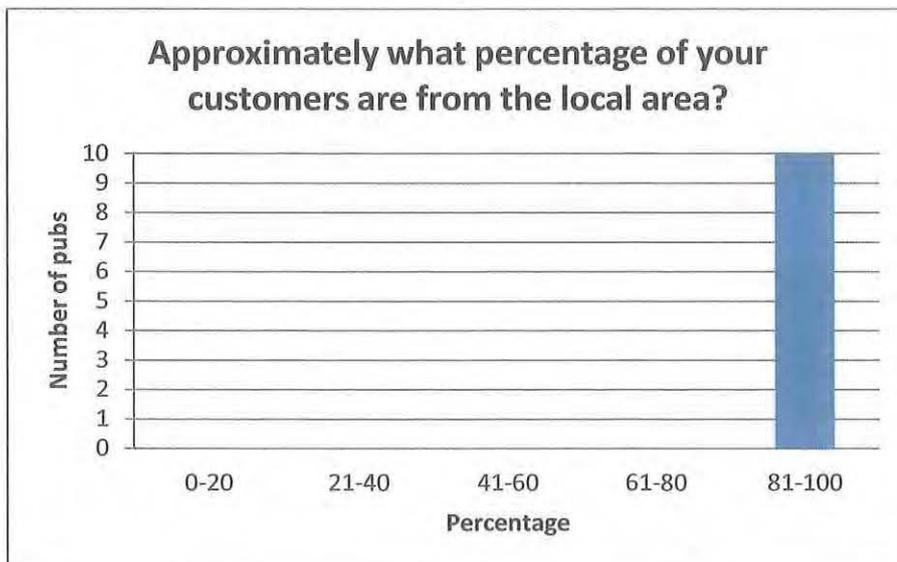
4. Did you experience any noticeable fall in alcohol consumption during the recession?

Yes No

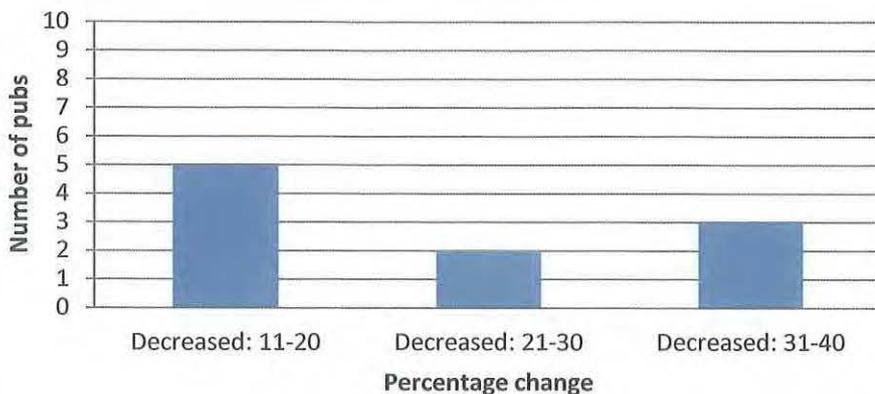
5. Do you think more people are buying alcohol from supermarkets instead of pubs in the last three months?

Yes No Maybe Don't know

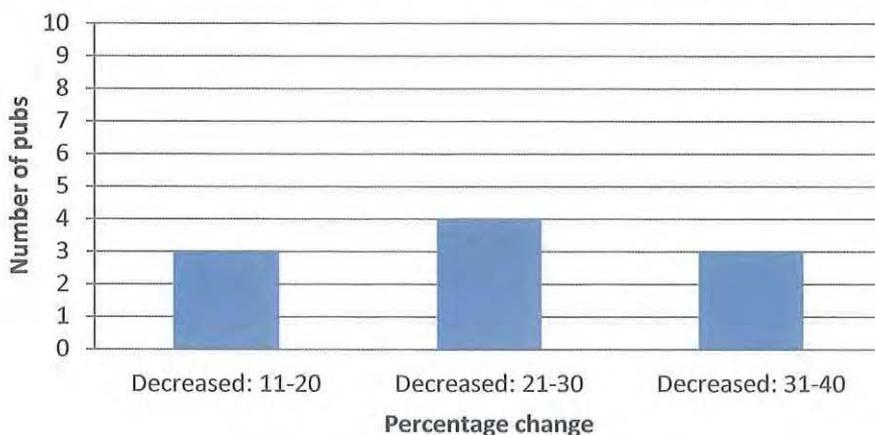
Results



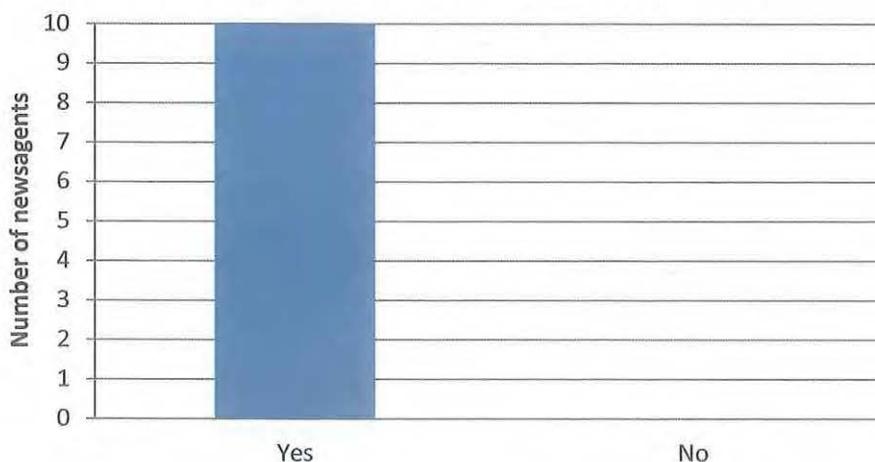
By what percentage have the number of customers per week changed in the last three months?



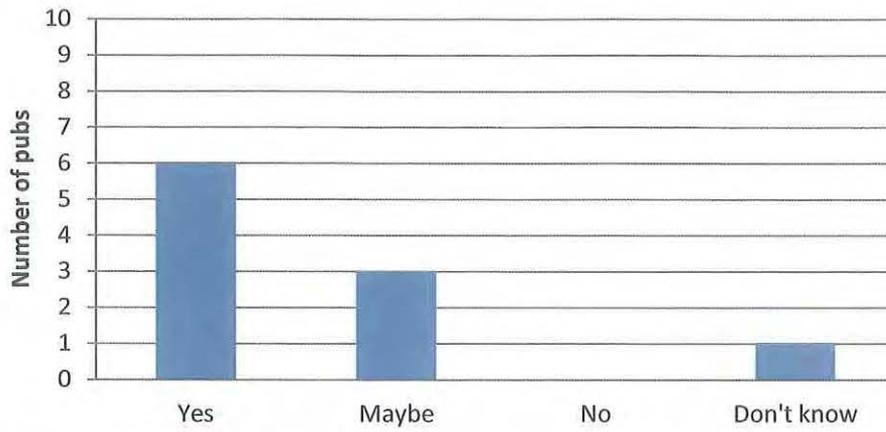
By what percentage have the number of sales per week changed in the last three months?



Did you experience any noticeable fall in alcohol consumption during the recession?



Do you think more people are buying alcohol from supermarkets instead of pubs in the last three months?



Appendix 3: Leisure Centres

Peter Caterall interview

- **Since the recession or April 2011 budget, has funding for leisure centres been significantly cut?**
The leisure centres are provided under a PPP (Public/Private Partnership) contract established under the previous administration. This specified a payment from LB Bexley to the leisure provider annually. As we have to find savings of £35m, we have looked at ways in which we can reduce this cost. However, funding has not currently been drastically reduced.
- **Has there been any impact on prices charged in leisure centres as a result of changing demand?**
Parkwood (the leisure provider) puts forward a set of proposed charges for me to sign off towards the end of every year. Since the start of the recession they have continued (as before) to largely put forward changes which are around the inflation rate. As far as I am aware from benchmarking exercises this is in line with other providers elsewhere.
- **In your opinion, do changes in income drastically affect demand for leisure centres?**
Changes in people's economic situation and economic perception (whether you think you are/will be better or worse off) can certainly lead to deferral of discretionary spending, but there is little evidence of this affecting Bexley's leisure centres over the last three years.
- **Are less and less people using leisure centres in recent times?**
As far as I can recall from the last figures I saw there has been a slight increase in throughput at the leisure centres.

Leisure centre questions:

1. Due to the economic downturn or recent budget, has there been a decline in the number of people using your leisure centre?
2. In your opinion, do incomes significantly affect demand for your leisure centre?
3. Have there been any price increases as a result of decreased funding from the council?

Sidcup Leisure Centre email

Dear

Many thanks for your recent enquiry

To answer your questions,

- To answer questions 1 and 2, undoubtedly customers expendable income, or lack of it does effect our business, but there appears to be no significant effect. The population do seem to be more financially aware and as a result customers will wait their time for discounts or special promotions. In fact, throughput for all our leisure centres continues to climb year on year since their re-developments over 5 years ago.
- The only price increases that we have enforced are our normal yearly ones, and our memberships only increased in January 2011 as a result of the VAT increase but not due decreased funding from the council

I hope that this helps and we wish you good luck in your investigation

Regards

Sidcup leisure centre

Erith Leisure Centre email

Dear

Thank you for your email.

In answer to your first question, there has in fact been a small rise in people using the services we provide. From our point of view, it seems that people believe the service we provide is too valuable to give up. Yes, the fall in incomes will affect our business. However, no drastic changes have occurred. In terms of funding from the council, there have been no cuts that have affected prices charged to consumers. As far as I am aware, the only increase has come from our annual price increases and the VAT rise that came about in January.

I hope this information will be of use to you.

Erith leisure centre