

Policy of taxing unhealthy food economics essay



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This essay assesses the effectiveness of a policy taxing unhealthy food that could reduce the obesity rates. It will present the how and why people become obese. In the main general problem of obesity is food. That is why the government tries to display the taxing on unhealthy food to solve this problem. This policy could control people's eating behavior otherwise people should change their attitude to eating unhealthy food and should try to control their health as well. This essay will show some evidence of the effect of taxing on unhealthy food tax, especially in the case study in a French household. In French household will exhibit why the French government provided this policy in their country. There are three effects of taxing on unhealthy food as impact of nutrients, impact on revenue raised and the impact on short-run welfare. This will be a good example of the taxing on unhealthy food policy does change people behavior.

Introduction

Food is one of the four factors that people need for human body. People get energy and nutrients from the food they eat. If they eat a lot of food, they will have a problem with fat or obese. People will gain weight if total calories consumed exceed total calories expended. Almost the economist will concentrate on food consumption, food differ in their calorie content, especially junk food which is the main concern of the unhealthy food tax program, is high calories, on the other hand the healthy food is low calories (Yaniv & et al, 2009). “ Tiffin and Arnoult (2011) suggest that it is important to consider the distribution of nutrient consumption in the population and to measure not only the impacts on average intake but also on health across the population”.

This essay will focus on the effectiveness of a policy taxing unhealthy food, especially fat food, which could solve rising obesity rates. In the first part will explain about obesity trend, display some evidence about eating behavior and exercise, and the second part will talk about implementing of a policy of taxing unhealthy food. Moving on the effect of a policy of taxing unhealthy food, this section will describe the result when the government performs taxing on unhealthy food. Moreover, this essay will show the case study in a French household, how the fat tax effect to the French population and at the end will be summarized.

Obesity trend

“ A person is obese if they have a body mass index (BMI = the ratio of weight in kilogram to the square of height in metres) of 30 or more (Leicester & Windmeijer, 2004)”. There are many causes that can explain why people become obese. Leicester and Windmeijer (2004) found that during past few decades calories intake had not necessarily increased and people might be eating more between meals. Although calorie intake had remained constant, this did not include snack in between main meals. The proportion of income on takeaways and eating out has also increased adding to daily intake of calories.

From figure 1 presents that in 1942, total purchase of fats was 245 grams per week per person, increasing to 339 grams per week in 1970 and decreasing to 186 grams per week in 2000. Additionally, total purchase of salt declined from 28 grams per week per person in 1970 and to 7 grams per week in 2000. In addition, in 1960 sugar purchase reached a peak 503 grams

per week per person before falling to 105 grams per week in 2000 (Leicester & Windmeijer, 2004).

Moreover, some evidence shows that exercise and physical activities had reduced amongst people. In 1994-1998, the low activity (less than 30 minutes of physical activity per one day per week) has risen in men. The similar trend in women, there is a huge increase from 35% to 41% in low exercise. It could explain that doing less physical activities might be a main factor to rise in obesity. Obesity will not cost only people who become obese but also include medical costs for treating obesity, illnesses and so on. If a person does not concern about obesity, the obesity rate will become higher than before (Leicester & Windmeijer, 2004).

Implementing of a policy of taxing unhealthy food

There are many ways to introduce an unhealthy food tax. It would be possible to expend VAT to cover all food that is currently exempt but that food has a high fat content such as butter, whole milk or cheese. Marshall (2000) argued that the VAT should expend to cover the main sources of fat food. There are two ways to support how to increase the VAT of food. Firstly, the government could tax on food according to their fat or other nutrient content. It would be difficult to design to tax on food in this way because some fat is essential for the diet people. Taxing on fat content; it would limit the price between high fat and low fat of food such as milk: whole milk, semi-skimmed milk and skimmed milk. The next point is taxing on nutrient; it would be more certain food groups such as crisp, snacks and soft drink. The general problem with taxing on food groups' is deciding which products

would face the tax and would be excepted (Leicester & Windmeijer, 2004). The second way is taxing on food according to the percentage of fat their content because it will be easy for the government to decide. But the problem is how much percentage that should be taxed on.

On the other hand, the food industry might be altering change the production process of food which has fat content. This result might lead to price having to be stimulated constantly. It would be possible that the industry may have greater motivation to change production processes to reduce fat content in order that decrease the tax liability their products would face. The major factor that could help a fat tax policy will be successful, is people. This policy depends on the extent to which it encourages people to reduce consumption of fatty food and the extent to which fatty food and snacks how contributed to the rise the obesity rates (Leicester & Windmeijer, 2004).

The effect of a policy of taxing unhealthy food

The distributional effects of a fat tax in figure 2 displays those 95 percent confidence intervals around our point estimates. On average, the richer people (with incomes above £519 a week) would pay less than 0.1% of their income spent on unhealthy food tax but the poorest (with incomes of less than £36 a week) would spend 0.7% of their income for fat tax. The result displayed that the level of tax does not affect to the income, otherwise the rich people pay a greater tax per unit of nutrient. The poorer people would face a small tax burden; they should consume less fat, sodium or cholesterol food. This way could be regressive for fat tax (Leicester & Windmeijer, 2004).

Fat is a necessary source for the human body but high-fat become with a large amount of calories. People should eat in a suitable quantity that enough for the body. The government should tax on calorie consumption (Leicester & Windmeijer, 2004). There are many reasons when the government uses the policy of taxing unhealthy food, the government will earn more money from taxing to support some activities that relate to peoples' health, such as an exercise equipment, education program healthy food or use it to help people are obese. However, if people do not change their behavior, and they still eat what they want. The unhealthy food taxing is not efficient.

Case Study: French household

This essay will show the case study in a French household. When the government uses the policy of fat tax, this policy will effect to people's behavior. To begin with the AI demand system has been developed by Deaton and Muellbauer (1980). The Quadratic AI demand systems are more flexible. However, the AI demand system is unlikely to be rejected for most food items (Allais & et al., 2010).

From table 1 show that some descriptive statistics for expenditure shares and unit values in French Francs per kilogram and the standard errors of the regressions. The estimation demand elasticity is made by using estimation of the AI Demand system. The goodness-of-fit in French household survey data appears to R2 value in a range between 0. 24 and 0. 82. Testing $\ln y_c$ and $\ln x_c$ in the regression allows direct testing to detect biases due to unobserved heterogeneity. From table 1 also display that $\ln x_c$ is significant for all food

except red meat, cooked meat, eggs, potatoes, fruit juices, dried fruits, processed vegetables, cheese/butter/cream, soft drinks, and water; and Income is significant for all food except fish, eggs, potatoes, processed fruits and vegetables, fruit juices, and alcohol (Allais & et al., 2010). This result can explain that the income is not sufficient for the household to control the total of food expenditure in the AI demand system (Lecocq & Robin, 2006).

This section will explain that in French, a fat tax policy can stimulate French's household to change behavior when they buy food. Kuchler and et al. (2005) the effect of the fat tax policy will make the price of food rising by the amount of the tax increase. There are many effects of fat tax to the French household. This case study will concentrate on three impacts. Bonnet and et al (2008) suggested in France the main effect of fat tax on calories, protein, lipids, and carbohydrates purchased by estimating the price elasticity of BMI (Allais & et al., 2010).

To start with, impact of nutrients purchased on body weight, table 2 presents that the percentage of quantity change in total nutrients obtained from modest income and well-off households if cheese/butter/cream, sugar-fat-product and/or prepared-meal prices increase by 10% over a four-week period. There are two main results can be highlighted. First, taxing on food can decline total energy, the impact of an unhealthy tax of nutrients acquired are difficult to forecast that food to decrease total calories purchased could cause to opposite effect as a consequence of cross-price elasticity. They found that a percentage change in energy purchased equal to -6.1% because the expending the VAT to high fat food products (Mytton & et al, 2007). Second, the nutrient elasticity shows that a tax on sugar-fat

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products has different effects on total nutrients obtained based on income class. Allais & et al. (2010) calculated that a 10% increase in the price of sugar-fat products lead to reduction of household total energy acquired by 0.79% for well-off and 1.20% for modest income households. From table 2 displays that the highest effect on total energy obtained is taxing prepared meals that cause to nutritionally benefit effects of sodium, retinol or vitamin. Next, the second highest effect on calories purchased for well-off households is taxing the cheese/butter/cream category, the modest income households it is taxing sugar-fat products (Allais & et al., 2010).

Furthermore, the impact on revenue raised, if the VAT of the food is increased, the average tax revenue raised. Allais and et al. (2010) found that there is an impact on nutrient purchases; it will boost 10% in tax revenue in cheese/butter/cream (prepared meals, sugar-fat products), the tax revenue equal on average to €1.80 (€1.07, €1.60) in well-off and €1.86 (€1.09, €2.15) in modest income household per household and four-week period. In 1999 according to the national tax revenue computed on average household are €45.64 million to 23.8 million households in French. Comparing between before and after taxing on unhealthy food, the government revenue increases by 16.3%, 9.26% and 16.59% for three food categories. These substantial effects are due to highly inelastic price elasticity. The revenue of government increases equal to €4.31 in well-off and €4.96 in the modest income per household and four-week period when the government tax on the three targeted food categories (Allais & et al., 2010).

Finally, the impact on short-run welfare, the short-run welfare cost means the total household food expenditures are down that a household living with <https://assignbuster.com/policy-of-taxing-unhealthy-food-economics-essay/>

no tax is willing to accept living with tax. The short-run welfare is defined that it does not include the long-term effect such as the tax on household physical health. Allais and et al. (2010) believed that the modest income and well-off households could be accept the average of total household food-expenditure decreasing to €1. 91 and €1. 98 per four-week period more than facing with 10% tax on cheese/butter/cream. First, when the sugar-fat products are taxed, the costs of welfare are across income levels. Second, there are higher tax revenue for cheese/butter/cream and prepared meals. Allais and et al. (2010) also suggested that the regulatory burdens of tax based on cheese/butter/cream (prepared meals, sugar-fat products) are equal, on average of 0. 057% (0. 036%, 0. 050%) for well-off households, 0. 09% (0. 05%, 0. 09%) and 0. 19% (0. 12%, 0. 22%) for modest income households. Chouinard and et al. (2007) believed that this instrument used to modify households' nutrient obtained can be hugely regressive, as supported for sugar-fat products.

The fat tax policy influenced to French household's nutrients purchased. In a fat tax policy, they assumed that set of food products are fixed. In the food industry might change the nutritional quality of the taxed products to remain retail prices and avoid a decrease in sales Furthermore; the industry might modify the composition of the taxed products by substituting more expensive components. The target of this policy is to decrease the sale and consumption of unhealthy food and to raise revenue to support diet programs and prevent obesity. In French, the first goal, the effect to the consumers is small and the second goal; the tax does not increase the revenue, it is unsatisfactory regressive (Allais & et al., 2010).

Conclusion

Depczyk (2009) found that a tax on unhealthy food could increase obesity. If unhealthy food, especially junk food which is quick and easy to obtain, people will spend more time shopping for fresh ingredients and preparing food at home. This also supports the evidence that why people do not spend time for exercise. The government presents unhealthy food taxing to solve the obesity rates; they will gain more money for using in other activities. However, the problem for the government is the question of what to tax, how many nutritional content or calories of food they should tax on. There would be difficult to define of any fat tax and might be encourage people to change their eating behavior (Leicester & Windmeijer, 2004). From the case study in French households, taxing on unhealthy food cannot decrease the sale and consumption of unhealthy food, it means people might not change their behavior and also the French government does not earn more revenue. In French household, the taxing on unhealthy food is not efficient.

Additionally, when they compare with cigarette and alcohol taxing, some evidence shows that the effect of cigarette and alcohol sin taxes, the price of both products are less influenced to the customers. Cigarette and alcohol taxes are far less effective for the people. It might be similar to the unhealthy food; if people do not change the way to live with healthy food, the policy of taxing on unhealthy food is not decreased obesity rates. So an unhealthy food tax may do little to improve health (Depczyk, 2009).

Words: 2565

Figure 1 Purchase of various food types, 1942-2000

Source: British Heart Foundation, 2003

From: Leicester, A. and Windmeijer, F. (2004). The fat tax: Economic incentives to reduce obesity. Briefing Note. 49 The institute for fiscal studies. Available at <http://eprints.ucl.ac.uk/14931/14931.pdf>

Figure 2 Distributional effects of a ‘ fat tax’

Source: Authors’ calculations from the National Food Survey.

From: Leicester, A. and Windmeijer, F. (2004). The fat tax: Economic incentives to reduce obesity. Briefing Note. 49 The institute for fiscal studies. Available at <http://eprints.ucl.ac.uk/14931/14931.pdf>

Table 1 Sample Mean Shares and Unit Values (in French Francs per Kilogram, 1 euro = 6. 55957 French Francs), Estimation Summary Statistics, and Tests for Existing Biases Due to Unobserved Heterogeneity.

From: Allais, O. and et al. (2010). The effects on a fat tax on French households purchases: A Nutritional Approach. American Journal of agricultural economics. 92(1), 228-245.

Table 2 Percentage of Quantity Change in Total Nutrients Purchased for Modest and Well-Off Households if Cheese/Butter/Cream, Sugar-Fat-Product, and/or Prepared-Meal Prices Increase by 10%, over a Four-Week Period.

From: Allais, O. and et al. (2010). The effects on a fat tax on French households purchases: A Nutritional Approach. American Journal of agricultural economics. 92(1), 228-245.