

Exam Statistics

Mean=18.3, median=19, standard deviation=4.4, min=10, max=25

Tentative Grade Thresholds

A = 22, A- = 21, B+ = 19, B = 16, C = 12

Part One, Multiple Choice Questions (one point each)

The correct answers are: 1. B, 2. B, 3. D, 4. C, 5. D, 6. B, 7. A, 8. C, 9. D, 10. D

Part Two, Short-Answer Questions (4 points each)

For each question, a clear statement of the correct answer was worth two points. The remaining two points were awarded based on the quality of the argument offered in support of the answer. The following are sketches of the correct answer. They are not ideal answers.

1. How, according to Krugman, does the modern case for free trade differ from the traditional case for free trade that would be made by Adam Smith or David Ricardo? Explain and cite the Krugman article.

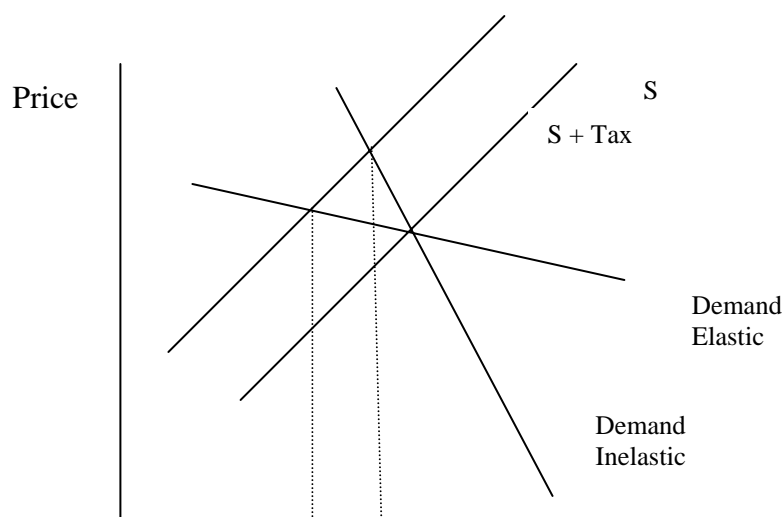
The modern case for free trade recognizes that the existence of economies of scale, price setting behavior and external economies provide grounds for a strategic trade policy. The argument for such a policy goes like this: If a national government can correctly choose a product (such as a type of airplane) and provide a subsidy to a firm that engages in its production, then that firm will find it optimal to produce the plane and, by deciding early on to produce, may gain early orders and grow in size and lower its unit costs to the point where producing the plane is very profitable. Production of the plane may also create positive externalities for firms that can benefit from some of the processes used to make the plane such as avionics, metal fabrication, development of light weight alloys and the like.

The modern case for free trade argues that it will be very hard for a government to choose the right firm and industry to support and to make sure that the profits due to the growth of the firm remain within the country. For example, the government may make production of a good profitable only to see that other firms enter the industry, compete and lower the price of the good which will transfer the benefits of the strategic plan to consumers throughout the world. Also, the government may find it difficult to distinguish between arguments that promote a particular industry because a strategic plan would lead to national benefits and arguments that appear to promote the national interest but actually promote a special interest within the nation such as a labor group.

When all is said and done, Krugman believes that free trade is the best policy not because it is impossible logically to improve on free trade but because it may be the best practical policy. Free trade is easily understood by all and easily communicated. Strategic trade is difficult to implement, risky, and hard to understand.

2. According to the New York Times, health experts are recommending a tax on soft drinks as a remedy for childhood obesity. Explain what it would mean for the tax to be a successful remedy. Explain why and how the success of the tax will depend on the price elasticity of demand. Provide an appropriate diagram and explain your reasoning in detail.

The goal of the tax is to reduce consumption of sugary drinks by children and thereby lessen the incidence of childhood obesity. The key assumption is that the price elasticity of demand for sugary beverages is high so that imposing a tax on them will lead consumers to choose substitutes and lower the quantity consumed. Incidentally, a high price elasticity of demand will imply that producers rather than consumers bear the burden of the tax. An appropriate diagram would show how the elasticity of demand would affect the outcome. A good answer will make it very clear that the proposal only makes sense if there is reason to believe that the youth demand for sugary beverages is highly price elastic.



Part Three, Essay (7 Points)

If so, why so? If not, why not? A good answer will take a stand, provide an argument, and illustrate the argument with well chosen examples.

“In some cases the imposition of a tax on production and consumption of a good reduces economic efficiency; in other cases, the imposition of a well designed tax promotes economic efficiency”

The essential point for a full marks essay to make is that in some cases a per-unit tax causes the marginal social cost of a good to rise above its marginal benefit in equilibrium while in other cases imposition of a per-unit tax causes marginal social cost to move closer to marginal benefit in equilibrium.

Let us first consider a good the consumption and production of which does not entail externalities. Let us suppose further that neither buyers nor sellers have market power. In this case, the imposition of a per unit tax will shift the supply schedule up by the amount of the tax and will, in general, lead to an increase in market price. (The only exception to this would be a situation in which supply is highly inelastic and demand is highly elastic). Buyers of the good will now consume it up to the point where marginal benefit equals the market price. Producers will now produce the good up to the point where price equals their marginal cost including the tax. The result is that the tax drives a wedge between the true marginal social cost of the good (as represented by the marginal cost curve of the typical producer) and the marginal benefit of the good (as represented by the demand schedule of the typical buyer of the good). Thus, the tax leads to a situation where too little of the good is produced and there is a dead weight loss of surplus. It would be possible to make some better off without making any worse off because there are consumers who stand ready to purchase additional units of the good at its true marginal cost (without the tax).

Now let us consider a good the production and consumption of which entails a negative externality. Again, let us suppose for the sake of simplicity that neither buyers nor sellers have market power. Without a tax on the good, buyers will use it up to the point where private marginal benefit equals market price equals private marginal cost. Put another way, neither buyers nor sellers will internalize the external cost associated with producing and consuming the good. Suppose, however, that the government can estimate the social cost of production and consumption. (In class, we quickly estimated the cost of smoking a cigar in the classroom and of someone taking a cell phone call in the classroom.) If government sets the per unit tax on the good equal to the marginal social cost of the good, then in equilibrium, marginal benefit obtained by an individual consuming the good will be equated by the market to the sum of private plus social marginal cost. In this case, the imposition of the tax will internalize the externality and induce rather than defeat economic efficiency.