# Ramsey Taxation

Ramsey Taxation is an attempt to minimize the distortative effects of taxes.

Introduction

As demonstrated in the prior readings, the imposition of taxes by the government can lead to a decrease in overall welfare. As shown in the section on excess burden, $1 of taxation may cost society more than $1 due to the changes in behavior resulting from the possible reduction in price received by the supplier, and the possible increase in price received by the buyer. As shown in Figure 1, when a tax is imposed on a good, the consumer will most likely pay a higher price for that item and the seller will most likely receive a lower price. The incidence, or the individual/entity paying the tax, ultimately depends on the elasticity of supply and the elasticity of demand—that is, the responsiveness of supply and demand to changes in prices. Additionally, the size of the dead weight loss to society also depends on the elasticity of supply and demand.

**Figure 1: Supply and Demand Responses to the Imposition of a Tax**
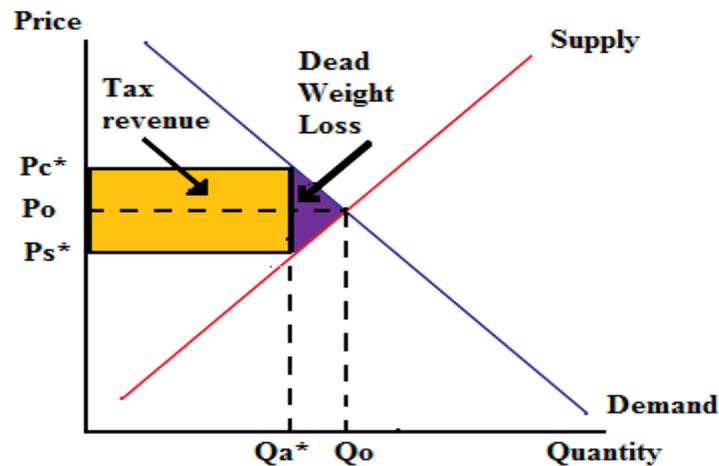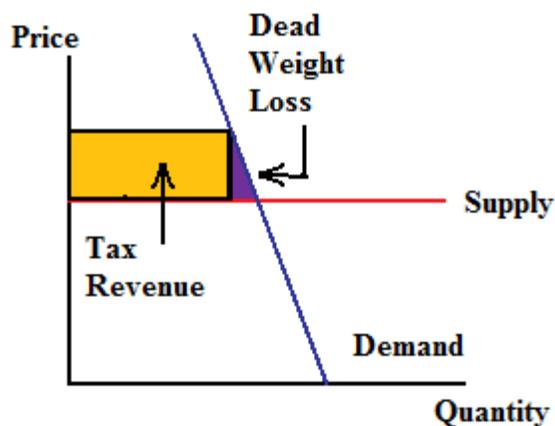
<u>The Ramsey Rule</u>

F.P. Ramsey used this model as a starting point for considering what sort of taxes might have the least distortionary, welfare-reducing effect on society. For simplicity's sake, Ramsey assumed a case of perfectly elastic supply, where a supplier will provide an infinite amount at a given price. In this model, as seen below, the more inelastic the demand, the less the dead weight loss. Thus, when demand is less responsive to changes in prices, then the imposition of a tax results in a smaller dead weight loss. According to this argument, politicians will generate a smaller cost to society if they tax necessities such as milk, which people will continue to buy in the face of an increase in prices. A simplified version of the Ramsey rule is the "inverse-elasticity rule." This rules states that tax rates on goods should be inversely related to their elasticity of demand.

Figure 2: Elasticity of Demand and the Size of the Dead-Weight Loss

A. More Elastic Demand
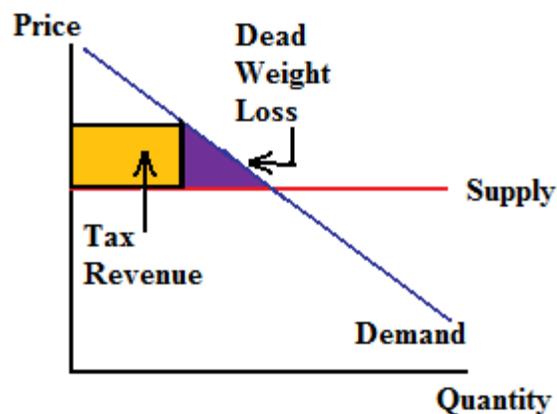
B. More Elastic Demand

Argument against the use of the Ramsey Rule for Taxation

The major criticism of the Ramsey rule is based on the observation that the demand for necessities is more inelastic than the demand for luxuries. As a result, a tax system that strictly follows the Ramsey rule might be somewhat regressive in nature, because necessity goods are likely to represent a higher percentage of household income for poorer households.

Many have also criticized the rule because the application of this rule will likely result in important administrative and compliance costs.

References

Gentry, William. "Optimal Taxation." *Encyclopedia of Taxation and Tax Policy.* Edited by Joseph J. Cordes, Robert D. Ebel, and Jane G. Gavelle. Washington, DC: Urban Institute, 2005.

Renstrom, Thomas. "Optimal Dynamic Taxation." *The Current State of Economic Science.* Edited by S.B. Dahiya. Tilburg: Spellbound Publications, 1999.