Laddawan Muangkum 2011: The Optimal Diesel Tax Rate in Thailand.
Master of Economics, Major Field: Economics, Department of Economics.
Thesis Advisor: Assistant Professor Bundit Chaivichayachat, Ph.D. 127 pages.

The objectives of this study are (1) to calculate the optimal diesel tax rate in Thailand in order to minimize total excess burden and (2) to compare excess burden between optimal total excess burden, which is calculated by optimal diesel tax rate, and the actual total excess burden, which is applied by actual diesel tax rate. For the calculation of optimal diesel tax rate, we estimated the simultaneous equation by using quarterly data during the period of 1995 to 2010 and performed two-stage least squares to define the elasticity of diesel demand and supply.

The results of this study indicate that the actual diesel tax rate based on the government controls, the diesel tax rate equals 2.26 baht per liter. This tax rate is not reflect the actual tax cost and the distortion of resources. The actual diesel tax rate generates the actual total excess burden equals 323.36 million. While the optimal diesel tax rate, based on the economic variables fluctuation, equals 2.78 baht per liter. This tax rate is reflect the actual tax cost and does not the distortion of resources. The optimal diesel tax rate generates the optimal total excess burden equals 248.71 million. The optimal total excess burden is lower than the actual total excess burden because the calculated optimal diesel tax rate is not distortion of resources.

Following the study, we suggest that the government should announce the optimal diesel tax rate based on the economic variables fluctuation in order to minimize the total excess burden.

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