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THE EFFECT OF A TAX ON COAL IN SOUTH AFRICA: A CGE ANALYSIS

by

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The Effect of a Tax on Coal in South Africa: A CGE Analysis

Probably the biggest concern for South African policy makers is the high level of unemployment that persists in the economy. There is thus an urgent need for policies that could increase employment growth. Any policy that could address these issues, would undoubtedly find favour with policy makers.

Despite high levels of unemployment and social imbalances, there are also concerns about South Africa's environmental management. It seems as if the debate of sustainable development, that has held the attention of policy makers in developed regions of the world for the past decade, has finally caught up with South Africa. One of the concerns that needs to be addressed is the relatively high level of CO_2 emissions created by economic activity in South Africa.

Given the issues discussed above, the purpose of this study is to determine whether policy makers in South Africa could introduce environmental taxation in the form of an intermediate tax on coal, without aggravating the problems of unemployment and the skew welfare distribution. The literature pertaining to the "double dividend" and the "Porter Hypothesis" motivates the possibility of achieving this result.

The results from this study indicate that South African policy makers should approach the problem of controlling the demand for coal with caution. It is shown that any policy that attempts to increase the price of coal would achieve very little environmental benefit. Although such a tax could serve as an attractive source of revenue for the government, the socio-economic benefits achieved through recycling of the tax would also be small and it is debatable whether they would warrant the administration and political debate that would accompany them.

It is therefore evident that policy makers will have to invest in research and development programs that will result in a reduction in the use of coal within the production process. Results from policy simulations have indicated that successful implementation of such an investment would not only reduce CO_2 emissions significantly, but could also increase economic growth, welfare and employment.

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