

DIAMONDS ARE NOT FOREVER: PRODUCTION AND TRADE OF DIAMONDS IN BOTSWANA

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Abstract

An estimated 80 percent of Botswana's exports come from diamonds. The mineral also accounts for nearly a third (approximately US\$3.3 billion) of the country's gross domestic product (2012 estimate). To date, Botswana is one of the richest countries in Africa, in large part because of diamonds. However, like most natural resources, diamonds are an exhaustible resource. In the medium to longer term, the country faces the prospect of economic downturn if its diamonds become too costly to mine or, in the extreme case, are depleted. This paper sets out to investigate intervention measures that can be put in place to delay the occurrence. This is achieved by estimating the price elasticity of demand and the price elasticity of government revenue from diamonds and examining their relationship with diamond prices, quantity and government revenue. The study specifies a log-log function of demand for diamonds with extrapolative or regressive expectations; and a log-log government revenue function for diamonds, which are estimated using error correction and two-stage least squares regressions, respectively. Findings of the study indicate that demand for diamonds is price inelastic with estimated elasticities ranging from 0.37 to 0.48. It is further established that government revenue for diamonds is price inelastic with an estimated elasticity of 0.9. Combining the two results, it can be inferred that an increase (decrease) in the price of diamonds causes a less than proportionate decrease (increase) in quantity demanded and a less than proportionate increase (decrease) in government revenue from diamonds. Against the foregoing, we argue that an optimal policy for Botswana is to engage major producers of diamonds, such as Russia, in a stockpiling arrangement to constrain quantity traded with the aim of influencing the diamond prices and government revenue from diamonds. This would have to be complemented by a fiscal rule where government will commit to save diamond related fiscal revenue while production is still strong, to help smooth any adjustment in government revenue that may be required in the long term when diamond resources have been depleted and production has ceased.

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