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Managing Resource Revenues in Developing Economies

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Notes

1. Democracy and resource rents also appear to interact badly ([Collier and Hoeffler, 2009](#)). Democracies with no natural resource rents tend to grow more rapidly than autocracies, resource-rich democracies grow more slowly than autocracies. The degree of electoral competition determines the process by which a government acquires power, whereas the number of checks and balances determine the limits on how it can use power. Electoral competition damages the democratic process, whereas checks and balances are beneficial. The evidence suggests that resource rents gradually weaken checks and balances. The governance challenge for resource-rich Africa may thus be to strengthen checks and balances in the face of pressures to weaken them.

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5. And if $r^D=r^*$ we return to the world of the permanent income hypothesis.
6. Only if the resource discovery is very large will it also be optimal to build up a permanent savings fund which will be smaller than under the permanent income hypothesis.
7. This section draws on [Commission on Growth Development \(2008\)](#).
8. For this calculation, we ignore the contribution to private sector investment from foreign sources. Foreign direct investment would be one category.
9. Note that the taxonomy links the discussion of resource revenue to that on

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12. If the interest rate and rate of time preferences are zero and the utility function displays constant absolute risk aversion, then a back of the envelope calculation shows that the optimal share of windfall revenue to save is $\varepsilon v^2/2$, where ε is the coefficient of relative risk aversion and v the coefficient of variation of oil prices. The 95 percent confidence interval for the predicted oil prices of [Hamilton \(2008\)](#) suggest mean oil price of \$137 per barrel and a standard deviation of \$37.5, so that $v=0.27$ over a one-year period. Given that a reasonable range for ε is 1–2, it is optimal to save between 3.75 and 7.5 percent of the windfall. If the windfall is expected to last much longer than a year, oil prices are much more unpredictable as the coefficient of variation increases with the square root of the length of the forecast period, so it is optimal to have a larger share of the windfall as a precautionary buffer. In an intertemporal context, the size of the precautionary buffers will have to be larger the more persistent shocks to commodity prices are;

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thank Rolando Ossowski for sharing his data on fiscal policies and hydrocarbon revenues with us, and thank Nicolas van de Sijpe for his able research assistance.

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