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Reference

Grossman, Gene, and Elhanan Helpman. 1994. Protection for sale. *American Economic Review* 84:833–50.

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Summary

Why are economic conditions—obviously beside the definitional divide in incomes and living standards—so different between rich and poor countries? In developing economies, why are inflation and tariff rates higher, property rights and the rule of law not well established, red tape rife, and corruption endemic? Why are government-owned or controlled firms—particularly banks—so ubiquitous, tax evasion so pervasive, and the tax base so narrow? In contrast to the political economy literature, which points to government capture by politically powerful groups as the source of these perverse outcomes, Gordon and Li (2005a, 2005b) hypothesize that the culprit is a developing-country government's limited capability to enforce tax laws, due, on the one hand, to informational and monitoring constraints when firms transact business on a cash basis, thus leaving no record, and, on the other hand, to the low and variable productivity gains that firms obtain when using the financial sector, thus providing them little incentive to switch from the tax-evading informal sector to the tax-paying formal sector. Accordingly, firms that cannot do without the financial sector, such as the large or capital-intensive ones, are those that are most highly taxed and that constitute the narrow tax base. In a second-order response, the government then acts to reduce the burden on these firms by providing tariff protection, rationing credit, and subsidizing loans (thus explaining government ownership of banks); at the same time, it can increase the costs of informal sector firms by using inflation as a tax on cash holdings and by imposing red tape, regulatory barriers to entry, and other nontax costs. As an extreme measure, the government may even opt for control of capital-intensive firms to ensure that, although heavily taxed, these firms continue to operate at the appropriate scale and capital intensity.

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To provide a point of comparison, Gordon and Li (2005a) also develop a political economy model based on Grossman and Helpman (1994). In this alternate paradigm, the perverse policies derive from the bargaining process between (free of the free-rider problem) industries that bribe the party in power and a government that maximizes a social welfare function that is specified as a sum of the industry utilities and the overall benefits of government revenue net of spending. The equilibrium outcome is that the degree of protection given to a particular industry depends on the value of its bribe to the government relative to the harm favoring it has on general welfare, including that of the other bribing industries. More specifically, the model predicts that the optimal effective tax rate for a bribing industry will be negative, as long as the industry is subject to a capital tax or import tariffs are levied on some industries, whereas that of a nonbribing industry may be positive. Moreover, under certain conditions, the optimal effective tax rate will be lower in more capital-intensive industries if it is already subject to—and precisely to compensate for—a capital tax. On the other hand, no plausible reason will be seen for using tariffs to protect bribing industries, unless differential sales tax rates cannot be imposed. Neither will there be reasonable grounds, in general, for imposing a capital tax (or providing a capital subsidy) against levying an output tax (or reducing the sales tax rate). But if the need exists, the superior policy, because it is more sharply targeted, will be to subsidize loans for capital investments in these industries, which may require government guarantees or state ownership of banks.

Two key elements of this political economy model are (a) the constraint on the social welfare function that a bribe by any industry will be acceptable only if it allows the government and the other bribing industries to be as well off as when the industry in question does not bribe and (b) the proportion of the bribing industries. The constraint has the effect, in equilibrium, of setting the utilities of the bribing industries to their default levels, that is, the level of welfare that each industry would attain, had all the other bribing industries submitted acceptable bribes. The proportion of bribing industries, for its part, circumscribes the extent to which the government can trade off the value of the bribe received with the harm favoring the industry does to the welfare of the society as a whole. Thus, because the bribing industries are assured of their default utility levels, the higher the fraction of the bribing industries, the less leeway the government has for making tradeoffs.

Assuming that fewer industries have the resources to bribe the government in developing countries, one may then draw out the following predictions from the political economy model: For poor countries, (a) overall tax revenue (as a proportion of output) and the size of the government will be higher, and (b) there will be greater flexibility to implement redistributive tax measures, such as a progressive income tax structure.

Finally, state ownership of firms can be explained as a way for the government to ensure that bribes are paid, which implies the poorest countries will have more state-owned firms, since proportionately they will have the fewest industries with a capacity to bribe. On the other hand, there are no grounds for using inflation and red tape as policy measures.

To test the predictions of the two models against the empirical evidence, Gordon and Li (2005a) put together a cross-section data set consisting of 125 countries. They find that the empirical evidence is consistent with three of the four forecasts that are similar between the two models, but only with those of the Gordon-Li model among the forecasts that are dissimilar. Specifically, they find that poor countries apparently have higher capital taxes as well as higher proportions of government-owned banks and other enterprises,[1] although in each case the data are not sufficiently detailed to distinguish the deeper, divergent motives of the two models. On the other hand, the data show that poor countries have lower tax revenues (as a proportion of GDP), higher tariff revenues (as a proportion of government revenues), lower income and sales tax revenues (as a percentage of tax revenues), a higher inflation tax, more red tape, and larger informal sectors.

Critique

What can one make of these models and the empirical evidence? The easy conclusion to draw is that the evidence is still quite tentative, because the data are not detailed enough to allow more than general and suggestive tests. Indeed, for this reason, some of the tests have a contrived feel. For instance, the prediction that capital-income taxes will be levied in the political economy model seems a bit forced, given that, under the framework, the superior policy is to levy an output tax. A second example is in the appropriation of the bribing industries as the informal sector, simply because they have tax exempt status. Yet another example is in the use of the cost to register a new business and the time required to start a business legally as indicators not just of red tape per se, but of red tape intended for the informal sector. Arguably, the majority of informal sector firms do not register their businesses as this would only leave a paper trail for government inspectors to track. Indeed, either the respondents of the World Bank survey from which the data were generated are unlikely to belong to the shadow economy or the informal sector respondents are likely to be undersampled. Perhaps more to the point, formal sector firms are just as likely to be affected by these time and financial costs, unless there are fast lanes for firms that are able to show tax payment certificates. On the other hand, in

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1. In the political economy model, a higher capital-income tax can be levied on the many nonbribing industries to offset capital subsidies to the fewer capital owners who bribe the government.

the regression of the size of the informal economy, the log of per capita GDP may have an error-in-variable problem, inasmuch as the measurement of GDP does not cover the output of the informal sector, which is likely to be proportionally more significant in poorer countries. In other words, the economic output is likely to be more undercounted in poor countries, which tend to have proportionally larger informal sectors.

As for the models, a problem is that the political economy model that is developed is not a good benchmark, because under no set of conditions can it replicate certain stylized facts in developing economies, such as the existence of an informal sector (unless it is made artificially equivalent to the bribing industries that, as a consequence, pay no taxes) and red tape and the use of inflation as a policy measure. A better alternative model is one that can replicate all the perverse outcomes in developing countries but under different assumptions, for example, an economy mired in a low-level equilibrium trap because either the political power of certain groups is threatened by economic growth or a predatory state preys on, that is, extorts and threatens—and is not just bribed by—the productive sector (see, e.g., Hoff and Stiglitz [2001]).

Another problem is that, in the two models, the extent of corruption is circumscribed by the tradeoff at the margin between the benefits of government expenditures to the people and the benefits of unspent revenue to the government in the case of the Gordon-Li model and the value the government assigns to a bribe and the harm that policies favoring the bribing industries can have on the general welfare in the case of the political economy model. Alas, in the developing countries, extortion rather than bribery can be the order of the day, and predators or rivals are not always so well meaning or morally squeamish. Indeed, the game can be played for keeps, as in the following example from McCoy (1994, 429):

> In June 1972, Eugenio Lopez, Sr., stood at the summit of Philippine public life. Starting as a provincial bus operator, he had risen in only sixteen years to become chairman of the country's largest media conglomerate and president of its leading utility, the Manila Electric Company. His brother was finishing a [second] term as vice-president of the Philippines. . . . Using his formidable media assets, he had recently defeated the country's president, Ferdinand Marcos, in a bitter battle over the spoils of power. . . .
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> Only three months later, President Marcos declared martial law and destroyed Eugenio Lopez. After imprisoning his eldest son on capital charges, Marcos forced Lopez to sign over his shares in the Manila Electric Company and had to watch silently while a presidential crony plundered his media conglomerate. Forced into exile, stripped of his wealth, and tortured by the threat of his son's execution, Lopez died of cancer in 1975 in a San Francisco hospital.

It is difficult to get at the ultimate reasons for taxation and inflation policies. But as far as government ownership of firms is concerned, the Philip-

pines is a counterexample to the Gordon-Li model. In the late 1980s, the country privatized the Philippine National Bank (PNB), then the largest government-owned bank, and, in the late 1990s, it auctioned off Metro Manila's water distribution utility to two concessionaires. In the first case, it was because the bank's financial position had become unsustainable, in large part due to its portfolio of bad loans mostly to Marcos cronies—which is a dangerous possibility for the government in the Gordon-Li model, if the highly taxed, capital-intensive firms become chummy with government-owned banks. In the second case, it was because the Metropolitan Waterworks and Sewerage System, a government-owned corporation, could not afford the capital investments necessary to maintain the quality of water distribution services. Since then the PNB's financial position has improved, as has the quality of water distribution in Metro Manila.

In any case, if the Gordon-Li model is an accurate account of the perverse economic policies in developing countries, then the policy implication is to speed up the implementation of financial sector reforms to raise the marginal benefits that firms gain from financial intermediation. The real danger, however, is that the model will be used by some rent-seeking government to stop anticorruption initiatives on the argument that corruption will vanish anyway once the benefits from using the financial sector are obtained.

References

Gordon, Roger H., and Wei Li. 2005a. Puzzling tax structures in developing countries: A comparison of two alternative explanations. NBER Working Paper no. 11661. Cambridge, MA: National Bureau of Economic Research.

———. 2005b. Tax structure in developing countries: Many puzzles and a possible explanation. NBER Working Paper no. 11267. Cambridge, MA: National Bureau of Economic Research.

Grossman, Gene M., and Elhanan Helpman. 1994. Protection for sale. *American Economic Review* 84 (4): 833–850.

Hoff, Karla, and Joseph E. Stiglitz. 2001. Modern economic theory and development. In *Frontiers of development economics: The future in perspective,* ed. Gerald M. Meier and Joseph E. Stiglitz, 389–459. Oxford: Oxford University Press.

McCoy, Alfred W. 1994. Rent-seeking families and the Philippine State: A history of the Lopez family. In *An anarchy of families: State and family in the Philippines,* ed. Alfred W. McCoy, 429–536. Quezon City, Philippines: Ateneo de Manila University Press.