Commentary

Title:

"Corruption's Effect on the Stock Market in Different Economies"

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In the minds of many, corruption and the stock market are synonymous. Various Hollywood depictions of "Wall Street," along with a few books by Michael Lewis, have made sure of that. The reality in terms of their overall impact on the economy, however, is that the two are more or less polar opposites: one is good and one is bad.

A well-functioning financial sector, including stock markets, is kind of important for economic growth (meaning GDP growth).[1] By listing on a stock market, firms – specifically younger firms – gain access to the financial capital they need to expand and innovate. Simultaneously, this provides an opportunity for individuals to earn a higher return on their savings while also diversifying. Yes, this is a simplified explanation and there are plenty of details and caveats. But taking idle funds from savers and allowing productive firms to put them to use in return for a share of profits is the basic idea, and that's why having a stock market is indeed kind of important.

Corruption, on the other hand, is generally bad for economic growth.[2] Though it's a bit harder to summarize without any context, "corruption" broadly refers to various forms of dishonesty, bribery, and/or excessive red tape required for business and/or political dealings. It's not hard to see how this can put a drag on economic interaction, as it creates extra costs to doing business. In economies with more corruption, firms and individuals must waste resources dealing with that corruption rather than being productive. Corruption also discourages investment in an economy, since investors would rather put their money somewhere more efficient, and where it's less likely to be embezzled (or even stolen).

But what about the impact of corruption on the stock market itself? Is it the case that corruption leads to more "Wolves of Wall Street," making the stock market larger but the economy less productive? As exciting as that may be to screenwriters, that's not the only possibility. Given the intuitive impact corruption has on a country's economic growth in general, it might seem more straightforward that corruption would also have a negative impact on the growth of that country's stock market specifically. After all, domestic firms that list on the stock market must face the associated costs of corruption within their own country. My coauthors and I recently looked into this question and found that neither of those answers is definitive. Not for all types of economies, at least.

In our working paper,[3] my coauthors and I investigate the relationship between corruption and stock market development. By "stock market development" we essentially mean the size of the stock market, but we use a few different variables to measure this – including stock market capitalization (the value of all stocks divided by GDP), the number of listed domestic firms, and stock market volatility – to make sure our results aren't dependent on any one measurement. For the same reason, we also use two different measurements of corruption: Transparency International's Corruption Perceptions Index and the Control of Corruption measurement from the World Bank's World Governance Indicators database.[4] While there is no one universal measurement of corruption, both of these indices score countries based on things such as levels of

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[1] See: King, R. G. and R. Levine (1993), "Finance and Growth: Schumpeter Might be Right," *Quarterly Journal of Economics, 108* (3), 717-737.

[2] See: Mauro, P. (1995), "Corruption and Growth," *Quarterly Journal of Economics, 110* (3), 681-712; Murphy, K., M. A. Shleifer, and R. W. Vishny (1993), "Why is Rent-Seeking So Costly to Growth?" *American Economic Review, 83* (2), 409-414; and Shleifer, A. and R. W. Vishny (1993), "Corruption," *Quarterly Journal of Economics 108* (3), 599-617.

[3] Chowdhury, M. S. R., M. Khraiche, and J. W. Boudreau, "Corruption and Stock Market Development: Developing vs. Developed Economies," (*https://coles.kennesaw.edu/econopp/docs/Corruption_vBagwell.pdf*).

[4] See: *https://www.transparency.org/en/cpi/2021* and *https://info.worldbank.org/governance/wgi/*.

distrust in public institutions, the number of bribes or irregular payments necessary to get things done, and contract enforcement. Using those measures, we look at the corruption-stock market relationship for 87 countries from 1995 to 2017.

When comparing the full sample of 87 countries, we find no significant relationship between corruption and stock market growth. That result alone may seem a bit unexpected, but it's not too shocking, since comparing large groups of diverse economies often leads to insignificant results. The countries are so different from one another that the effects are hard to disentangle. So, to get a closer look, we divided the sample into two groups, developing and developed economies,[5] and looked at the relationship within each group. These results are a bit more surprising.

For the group of developed economies (those with higher per capita incomes), the results are as expected: corruption is negatively related to stock market development. There we go. Corruption makes things in general more difficult, and that includes listing on the stock market! There is also evidence of a diminishing returns effect, as the economy's income level had a negative effect on the effect of corruption itself. This also makes sense. The higher an economy's per capita income: the more developed it is, the lower its level of corruption already, so the smaller effect a further incremental decrease in corruption will have on its stock market. Again, these results seem to make sense intuitively.

The results for the group of developing economies are the surprising part. Developing economies show no significant relationship between corruption and stock market development (which also means they drive the insignificant relationship for the full sample). That's especially surprising given the results for the developed group that suggest diminishing returns – if higher income economies see a smaller negative effect of corruption on stock market development, shouldn't lower income economies see a larger negative effect? Or, conversely, if that relationship holds, we would expect corruption to have a larger effect on developing economies.

But it doesn't. Reducing corruption does not seem to have an impact on stock market development in developing economies at all. Only in wealthier, developed economies, that already have less corruption than those in the developing group. Why?

From what we can tell the answer isn't that less corruption would never have an effect. It's just that developing economies tend to have levels of corruption that are already so high that small reductions do not make a significant impact on firms' decisions to list on the stock market, given the rest of the economy's conditions.

Consider a new, growing firm that faces a large variety of costs, some of which may be due to corruption. All of those costs, as well as the business outlook of the economy as a whole, contribute to whether or not the firm will be healthy enough to list publicly. Though the primary purpose of listing is to gain more access to funding by selling shares to the public, the process itself is quite cumbersome, and the firm must be strong enough to convince investors to buy in. Now consider what happens if there is a reduction in the economy's level of corruption, so that those related costs are reduced to some extent.

In a relatively wealthier (developed) economy, with optimistic growth prospects and lower costs to begin with, reduced corruption may be just what the firm needs to nudge it "over the edge" and make going public an attractive option. In a less wealthy (developing) economy, however, where the economic outlook is more grim and the baseline level of corruption is considerably

[5] Our threshold per capita income cutoff for classifying developing vs. developed economies was $12,535, as this is the threshold used by the World Bank. As with our other variables, however, we tested the robustness of our results with alternative thresholds, and they were unaltered.

higher, a marginal reduction in the costs that are due to corruption may not be enough to have an impact on the firm's decision to list. In the language of economic theory, we believe there is a *discontinuity* in the effect: beginning in a state of high corruption, reducing it won't have any effect until it is reduced by a sufficient amount; beyond that threshold, reduced corruption will have a much larger effect on developing economies than developed. The problem, of course, is that such dramatic changes are much harder to achieve via policy or over small time-horizons.

While not a traditional poverty trap by any means, this does highlight yet another important distinction between developing and developed economies. The types of changes that make a difference to decision makers in a developed economy will not necessarily make a difference to those in a developing economy. Thus, while corruption remains a negative force for economic growth, improving an economy's fundamental macroeconomic conditions might be a more important priority. It's not that corruption isn't an impediment at all in developing economies, it's just that small changes along that dimension alone may not be enough to make a meaningful difference.

On the bright side, for economic logic, at least, we can rule out any "Wolves of Wall Street" effect. There was never any semblance of a positive effect of corruption on stock market development in any of our treatments. Michael Lewis fans might be surprised.