

Making (More) Sense of Subjective Rankings

Do firms' subjective rankings of constraints to their business reflect reality? Evidence suggests that they do

Qualitative rankings of constraints to business are popular among policy makers and in the private sector. Beyond the relative ease of collecting this type of data, firm rankings of constraints are appealing because they implicitly combine an assessment of the severity of the conditions with their importance to the firm's operations. Short delays in a critical area should be ranked higher than long delays in less critical areas. And perceptions can have real effects, influencing firms' decisions to undertake investments, hire workers, or expand production.

Yet there is skepticism among economists about the reliability of such rankings and therefore the weight they should be given in determining reform priorities. Comparisons can be difficult if there are differences in respondents' willingness to complain; one person's "moderate" constraint may be another's "major" constraint. There are also concerns about whether answers reflect the issue or the firm's performance—that is, whether poorly performing firms are more likely to blame poor external conditions for their plight.

A new paper by Hallward-Driemeier and Aterido tests how well subjective rankings reflect the realities they are intended to measure—using comparable data from World Bank Enterprise Surveys covering 72,000 firms in 105 countries along with both more objective data from the survey and outside data sources. It also examines whether what you say you care about depends on who you are (for example, firm size) and how you are doing (performance).

As a first step the absolute rankings are converted to relative rankings. With 17 issues being ranked, a respondent's average level of complaint can be subtracted away. This controls for differences in willingness to

complain that are likely to shift all of an individual's responses up or down. It also addresses any performance bias acting as a firm-level effect.

The analysis finds strong empirical evidence that perceptions reflect the real investment climate. The relative rankings are strongly correlated with matching quantitative measures from both the survey and external sources. Thus those complaining relatively more about electricity do face more outages. This provides credibility to the subjective rankings.

Firm size and performance could still matter. Certainly there is much variation in responses across firms within a country. But size and performance do not simply shift rankings up or down monotonically. Indeed, average levels of complaints are lowest for small firms and higher for both micro and larger firms, and both expanding and contracting firms report significantly higher levels of overall constraints than stable firms do. These nonlinearities in the effect of characteristics on the severity of a constraint caution against simply including firm characteristics as controls; the overall effect can be insignificant when there are important relationships in different segments of the data.

The analysis investigates three potential channels through which firm size and performance could affect subjective rankings:

- *The actual conditions experienced vary with firm size or performance.* Indeed, the analysis finds that smaller firms are less able to access external finance and the bribes they pay are proportionately larger. Contracting firms are more likely to have experienced losses from crime and spend more time with officials and in inspections. These patterns in the quantitative data correlate well with the importance given to these issues in the relative rankings.

- *Relative priorities across investment climate areas vary with firm characteristics.* While firm characteristics do not have simple level effects on rankings, they do affect the relative importance of constraints. Crime and access to

finance are more likely to be among the top constraints of smaller firms. Expanding firms rate labor skills relatively high; contracting firms see labor regulations as more constraining.

- *Firm characteristics have a nonlinear impact on how constraining the same objective condition is reported to be* (for example, large firms may report the same number of power outages as being more constraining than small firms do). There is little evidence of nonlinearities by either size or performance in how constraining objective conditions are reported as being.

The analysis confirms that variations in relative rankings by firm size and performance reflect differences in the objective conditions these firms face as well as differences in their relative priorities. Thus endogeneity does remain a concern when trying to use subjective rankings to explain performance. But it is reassuring that who you are has little independent effect on how constraining the same objective conditions are reported to be.

Overall, the qualitative rankings do not simply reflect the respondent's characteristics, nor does performance or size affect how the same objective conditions are translated into rankings. Instead, the subjective rankings appear to be a good reflection of objective conditions and the importance of these conditions to the firm—which is the original appeal of this type of data.

Mary Hallward-Driemeier and Reyes Aterido. 2009. "Comparing Apples with... Apples: How to Make (More) Sense of Subjective Rankings of Constraints to Business." Policy Research Working Paper 5054, World Bank, Washington, DC.