

Approach Paper

Impact Evaluation of IFC's Business License Simplification Program to Promote Entrepreneurship in Peru: an Independent Assessment

Background and Context

1. Programs to reduce the costs of doing business, replicated in many countries over the past 15 years, represent one of the major initiatives of the World Bank Group, particularly the International Finance Corporation (IFC). Apart from the direct burden of unnecessary procedures and delays, it is often alleged that inefficient business regulations and procedures lock enterprises into the vicious circle of informality, where firms have little effective access to financing and limitations on their ability to grow and prosper beyond the status of micro-enterprises. At issue are not only the merits of specific business regulations but also the drag on development represented by informality itself.
2. This evaluation will assess the impact of IFC's Business License Simplification Project in the Municipality of Lima, Peru. Under this project, the Foreign Investment Advisory Services (FIAS) of IFC decided to work with the Municipality of Lima to reform the administrative process for obtaining a business license in *Cercado de Lima*, which is one of 44 districts that comprise metropolitan Lima. According to the Municipality, 64% of the businesses in this district lacked a business license in 2005, and most of them were micro-enterprises. The project (*Project Lima Simplification*) was implemented from January 2005 to March 2007. IFC has since sponsored two evaluations which asked separate questions. A 2007 evaluation asked whether the project led to reductions in time and procedures and increases in licenses and found that it did. A second IFC-sponsored evaluation in 2011 used an experimental methodology with treatment and control groups to ask whether the project led to improved business outcomes. This second evaluation found no evidence of positive effects. This evaluation will conduct an independent analysis of both previous studies, collect additional data, verify the previous findings, and place the findings in the context of related studies and evaluations. The goal is to take stock of the results, collect and use other evidence and draw lessons for future IFC and World Bank operations.
3. The IFC project on Business License simplification is a kind of intervention pursued in many parts of the world and is therefore of wide interest. The issue of the merits of business regulations is applicable to many advisory operations and projects, as is the issue of the merits of formality itself. Both the World Bank and IFC engage in projects and advisory services to promote simplification of business procedures.
4. The Lima Business License Simplification program included both measures to reduce costs associated with business regulations as well as inducements to encourage firms to escape from informality. The rationale for the first part, reducing costs and simplifying business registration procedures, hinges on the magnitude of the costs and benefits. For some procedures the case seems clear: there are no benefits; only costs. Or the benefits may

be experienced only by small interest groups in government offices. For some procedures the issue is not the existence of cost and benefits, but estimation of their magnitude. Accurate estimates of costs of procedures can guide future programs towards elimination of the most costly procedures.

5. The rationale for measures to induce an escape from informality hinge on the idea that becoming formal will cause firms to become more productive and will yield further benefits to other firms and society. Farrell (2004) and related research by McKinsey has made claims about what greater formality will accomplish, arguing that informal status causes and perpetuates a low-productivity trap. Proponents further argue that formality will improve access to financing, will facilitate investment, and promote higher productivity and business growth. Further, a high level of informality represents unfair competition for legitimate businesses and means that beneficial rules are not being enforced. A recent study of Egypt argued that formal status would enable enterprises to better protect property rights, secure inputs at lower costs, take advantage of expanding markets, benefit from reorganization and greater specialization, and avoid paying informal payments to remain informal (Galal, 2005).

6. There is ample evidence that formal enterprises tend to be more productive and obtain credit to a higher degree than informal enterprises; but the crux of the issue is whether formality is a causal factor or is simply associated with these outcomes. Experimental impact evaluation evidence is uniquely valuable because it speaks precisely to this critical question of causality. Since random assignment of enterprises to the control group guarantees that the sole systematic difference between the two groups is related to the intervention, any subsequent differences in outcomes must be attributable to the intervention and nothing else. Recent experimental research with Sri Lankan enterprises found that formality did increase average firm profits, but that this result, though legitimate, was driven by high profits of just a few firms. They did not find any effect of formality on applying for or getting loans and they did not measure effects on productivity (de Mel, McKenzie and Woodruff, 2011). The Peru study being evaluated here adds to this body of emerging experimental evidence.

7. For license simplification the postulated theory of change is simple and direct. Reducing the number of procedures and the costs of complying with rules immediately reduces costs, both monetary costs and time costs. These cost reductions are the beneficial outcomes intended by the project. Successfully implementing the program means reducing costs, and these are the intended outcomes of the program. For the aspect of the project which is to encourage registrations and greater formality of enterprises, the theory of change is that the cost reductions will induce more registrations and these in turn will create greater opportunities for enterprise growth, finance offered on better terms, higher investment and growth of enterprises. Several parts of this causal chain are testable. Did the cost reductions lead to greater registration? Did the greater registrations lead to better terms on offer for credits and higher investment? Did the higher investment lead to higher enterprise value added and employment growth?

Purpose, Objectives, and Audience

8. This evaluation will provide an independent assessment of an ex-post evaluation, providing additional evaluative evidence on the benefits of business transition from informal to formal enterprise status. It seeks to validate and possibly increase the small body of evidence on the impact, costs and benefits of both business registration procedures and informality. The evaluation will also draw lessons for the design of future similar business simplification programs

9. The IFC commissioned analysis of the data is different and noteworthy. It uses unique evidence on the putative benefits of formality and also uses cost benefit methods to assess the cost savings aspect of the program. An independent assessment of the data collected and review of the analysis has potential value from three sources. One is the independent validation of the analysis already conducted which will come from the review of the results of the benefit and cost assessment of business license procedures as well as the econometric analysis. Another source of value is supplemental insights that would emerge from integrating additional evidence into the analysis. The fact that firms that were offered a monetary incentive were slow to engage in business registration is itself evidence on the value of formal registration that should be integrated with the impact evaluation evidence. The final source of value is that the results will be placed in the context of similar studies and evaluations in order to assess external validity of the findings and make the findings useful to future World Bank and IFC operations.

10. The expected users of this evaluation are members of the World Bank Group involved in programs about the cost of doing business or the informal sector and the Board of Directors. The broader audience ranges from donors that support similar programs to the broader development community.

Evaluation Questions and Coverage/Scope

11. The overarching issue is the nature and the magnitude of the cost savings and other benefits of Business License Simplification. One aspect of this is the size of the direct cost savings from reducing fees and procedures, and whether these are correctly estimated. Another issue is whether there are benefits to formality that informal enterprises themselves may underestimate, providing a role for the state in promoting formal status. Still further is the question whether there are important positive externalities or network effects from having many firms acquire formal status? If so, what are these and how large are they? Specifically:

- a. Are the direct cost savings estimated for license simplification plausible? How sensitive are the bottom line results to reasonable changes in the assumptions? Key assumptions include how much time individuals spend dealing with procedures and the opportunity costs of time.
- b. Can the econometric results of the IFC assessment be replicated and confirmed? Are the inferences reached by the self-evaluation warranted in light of any revised empirical results or additional data?

- c. What do the results suggest about the presence and magnitude of the private and social benefits from having many firms acquire formal status?
 - i. Did the cost reductions in fact lead to greater registration? This will examine the results and reasons for partial take-up of the incentives offered by the program.
 - ii. Second, to what extent is there evidence that greater registrations lead to better enterprise outcomes? The presumed causal chain for this runs through there being improved terms on offer for credit, higher investment, and then higher enterprise value added and employment growth. To what extent is there evidence that these intermediate steps occurred?

12. This evaluation will be based on the evidence collected and produced under the Business License Simplification Program in Peru as well as a supplemental survey conducted by IEG. The analysis will include a desk review of the documents, a sensitivity analysis of the cost benefit analysis, a re-estimation and review of the results using the primary data collected under the auspices of the project, and extension of the empirical results using data from one more round of the survey. To ensure comparability, this survey will use the exact same methodology as previous surveys but will be sponsored by IEG.

Evaluation Design and Methodology

13. The methodology used to answer the evaluation questions will range from simulations to test assumptions about costs and benefits to desk analysis of project documents to replication and further interpretation of the econometric results. The simulations will primarily be used to review the cost-benefit framework used to quantify the costs of complying with license procedures (and the benefits from their removal). Critical assumptions to be assessed include the assumptions about the amount of time that is spent per day and per year complying with procedures, assumptions about the opportunity cost of time, and assumptions about the number of enterprises annually that have to go through business licensing. This assessment will seek to determine which of these assumptions are critical to the bottom line and whether there are other plausible values of the parameters that would overturn the conclusions.

14. The impact evaluation methodology used in the second IFC-sponsored evaluation was instrumental variable estimation (IV), which requires some explanation. The reason IV estimation was required was that the Peru Business License Simplification project was not designed from the outset for a straightforward impact evaluation - with random assignment of groups to the intervention group (or treatment group) and the control group before the project started. If every enterprise in the sample, both treatment and control, were assigned randomly to one of the two groups, then all the statistical variation could be used in order to estimate the impact of the treatment. This is because, in that case, all of the assignment in the sample would have been forced by an external process (random assignment), not from self-selection.

15. Unable to perform random assignment, the Peru project instead offered a monetary incentive to encourage enterprises that had not yet registered to register. Since offering an incentive raised the likelihood that a firm would receive the treatment, but did not guarantee it, the resulting assignment in the sample is not completely free of self-selection. A statistical technique is thus required to ensure that the part of the variation that is used in the estimation is the exogenous part and not the part due to self-selection. That is essentially what the IV technique accomplishes. It is an important tool to use when projects do not have the option of organizing an experimental impact evaluation from the outset.

16. The data for the econometric part of this evaluation comes from five separate rounds of surveying small enterprises in a specific district of Lima Peru. Data from the first four rounds have been used in the IFC-sponsored evaluation. There was a baseline survey (May 2008) followed by three further rounds (November 2008, November-December 2009, and November 2010). The econometric analysis used a sample of 239 firms that remained in the panel through all four rounds. A financial incentive, ranging between \$13-\$40 USD, was offered to a randomly-selected subset of firms in summer 2008 (a few months after the baseline survey was conducted) to encourage them to formally register their enterprise (obtain a license). Among the questions asked in the survey were questions that serve as the outcome variables in the impact evaluation. These questions include questions about revenues, profits, number of workers employed, the value of the firm and whether formal credit was requested. As mentioned previously, the encouragement design chosen for the evaluation of this project dictates the use of instrumental variables estimation. The “treatment” variable will be a 0/1 variable measuring the acquisition of a license. The instrument for that treatment variable will be the financial incentive. Since the financial incentive was assigned randomly it is by definition uncorrelated with the outcome variables but will be correlated with the treatment variable (as long as the financial incentive has some influence on the decision to obtain a license).

17. The fifth round of the survey will be sponsored by IEG to test whether the passage of additional time (30 months) changes any of the results. It will use exactly the same methodology as the previous rounds (meaning the same firm will conduct the evaluation and a reduced list of questions from the same questionnaire will be applied to the same sample of enterprises). It will start with the sample of 239 firms in the fourth round (November 2010) and interview as many of those as are still in business. Information will be gathered on the reasons why any firm is no longer in business.

18. This evaluation will seek to validate the reported econometric results using the original data; and pass judgment on the degree to which the conclusions reached as a result of this evidence are warranted and/or whether other conclusions are warranted. The electronic data files have been obtained from IFC. Although there is no way of knowing for certain whether and what additional conclusions can be reached, given the additional data to be collected, it is likely that additional findings will emerge in the course of this work.

Expected Outputs and Dissemination

19. The main outputs of the study will be an evaluation report. This document will be disseminated to a broad audience inside and outside the World Bank Group. The team will discuss the findings and recommendations and seek feedback from staff working on these issues across the World Bank, IFC, and MIGA. The team will also use existing dissemination tools, such as IEG and WBG websites, and seminars to widely disseminate findings.

Resources

20. The task manager for the report is Andrew Warner, under the supervision of Ade Freeman, Head Macro Evaluation and Marvin Taylor-Dormond, Director IEGPE. Additional assistance will be provided by Srinath Sinha and analysts will be brought in to support the team as needed. Jeffrey Tanner and Markus Goldstein will serve as peer reviewers.

21. The evaluation work plan is included in Attachment II

Attachment I: References

IFC, (2003). *Informality and the Playing Field in Vietnam's Business Sector*, IFC World Bank and MPDF, Washington DC.

Ahmed Galal, (2005) *The Economics of Formalization: Potential Winners and Losers from Formalization in Egypt*, in Berglof and Claessens eds.

Williams, Colin C. and Sara Nadin, "Entrepreneurship and the Informal Economy: an overview." *Journal of Development Entrepreneurship* Vol. 15 No. 4 (2010) 361-378.

Lorena Alcazar, Andrade, R. and Jaramillo, M., "Panel/Tracer study on the impact of Business Facilitation Processes on Enterprises and Identification of Priorities for Future Business Enabling Environment Projects in Lima, Peru: Report 6: Impact evaluation after the fourth round" February 2011, GRADE, Lima Peru.

Farrell, Diana, (2004) "The Hidden Dangers of the Informal Economy" *McKinsey Quarterly*, No. 3.

Suresh de Mel, David McKenzie and Christopher Woodruff, "The demand for, and consequences of, formalization among informal firms in Sri Lanka", World Bank Policy Research Working Paper no. 5991.

Attachment II: Evaluation Design Matrix

Evaluation Question	Information required	Information source	Design strategy/ Collection	Data analysis methods
Are the direct cost savings estimated for license simplification plausible?	Key assumptions used in the cost benefit analysis of the self evaluation.	Project Documents	Obtain Project Documents.	Simulations with Spreadsheet
Did the cost reductions in fact lead to greater registration?	Observed take-up rates as reported in project documents	Project records and data	To be requested from project	Data analysis with spreadsheet
Can the econometric results be replicated and confirmed? Are the inferences reached by the self-evaluation warranted in light of any revised empirical results?	Original firm-level data used in the self-evaluation of the project	Project data	To be requested from project	Econometric estimation and sensitivity testing
To what extent is there evidence that greater registrations lead to better enterprise outcomes?	Original firm-level data used in the self-evaluation of the project	Project data	To be requested from project	Econometric estimation and sensitivity testing