

Productivity, Growth, and the Law

Remarks by

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at the

Annual Bank Conference on Development Economics

The World Bank and the Bank of Mexico

Mexico City

June 16, 2015

It is an honor to have the opportunity to deliver the closing remarks at this international conference, organized jointly by the World Bank and the Bank of Mexico, on the relationship between productivity, growth, and the law. On behalf of the Bank of Mexico, I would like to extend my gratitude to all the participants for their valuable contributions.

The discussions here have been highly enlightening, and the wide variety of papers presented has helped us deepen our understanding of the vital role of productivity in any economy. Identification of the sources and effects of productivity is critical to explaining why income levels differ so much among nations, and more importantly, may give us a guide as to how to foster higher living standards.

I would like to begin my remarks by reflecting on a few salient issues in the literature on productivity and the rule of law. Then, I will briefly explore some struggles that policy makers face in the aim of promoting efficiency and economic expansion. Finally, I would like to address challenges to higher long-term economic growth in Mexico. As usual, my remarks are entirely my own and do not necessarily reflect those of the Bank of Mexico or its Governing Board.

A few salient productivity issues

Two basic observations arise from international data on economic development. The first is the persistent divergence of income per capita across countries over a sufficiently long period of time. This well-known tendency is striking, as developing

economies typically exhibit unexploited business opportunities that would otherwise allow them to grow faster than industrial nations, thereby catching up with the leaders. We know that, as a general trend, absolute convergence has not occurred.

A second observation is that a large part of economic growth can be attributed to the efficiency with which production inputs are applied, in addition to the intensity of their use. Economists refer to the first as total factor productivity (TFP), estimated on the basis of measures of output and inputs, as well as certain production function assumptions.

The success of a few countries which have managed to multiply their income levels quite rapidly has largely resulted from booming TFP. Furthermore, productivity differences at the firm level within an industry is a puzzle that prevails even in advanced countries. Firm survival is frequently linked to higher levels of efficiency.

These observations make the study of productivity a central object of inquiry. On the other hand, the fact that TFP is estimated as a residual implies that it summarizes our ignorance regarding what makes one economy or firm more efficient than others.

At the aggregate level, research on the possible sources of productivity and economic growth has been extensive. In particular, empirical studies during the last few years have largely focused on the search for a dominant driver of economic progress,

through the test of competing hypotheses. A central premise examined has been the role played by political and legal institutions.¹

Institutions can be interpreted as a set of permanent rules that limit the behavior of individuals and the government, providing a stable framework of certainty. The rule of law represents a central piece of the group, encompassing factors such as the protection of property rights and the administration of justice. The explanatory power of institutions has been placed empirically against factors such as geography, international trade, and human capital.²

Results from ongoing investigation have not been conclusive. Although most research in economics evolves through ideas that may later be refuted, in this case, the prolonged lack of conclusiveness seems to reflect two difficulties. The first has to do with technical issues associated with measurement problems and the choice of instruments to correct for the possible endogenous nature of the proposed determinants.

For instance, significant debate has centered on what might be an adequate institutions indicator, given the fact that the concept is vague, and some of the

¹ The pioneer work of Douglass North sets the basis for the discussion on the role of institutions in economic development. See North, D.C. (1981), *Structure and Change in Economic History*. New York: W.W. Norton; and North, D.C. (1990), *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.

² See, for example, Rodrik, D., et al. (2004), "Institutions Rule: The Primacy of Institutions over Geography and Integration in Economic Development," *Journal of Economic Growth*, 9(2); Glaeser, E.L., et al. (2004), "Do Institutions Cause Growth?" *Journal of Economic Growth*, 9(3); and Luo, J. and Y. Wen (2015), "Institutions Do Not Rule: Reassessing the Driving Forces of Economic Development", *Working Paper 2015-001A*, Federal Reserve Bank of St. Louis.

variables commonly used come from opinion surveys that do not necessarily reflect the permanent rules of the game. Similarly, instruments have been criticized for not exhibiting exclusive correlation with the variables being tested. Yet, in spite of the complications, these technical problems should eventually be settled.³

A second, perhaps deeper reason as to why empirical confirmation of the prominent role of institutions has remained contested is the fact that the search for a single key driver could be misplaced. It is likely that, given the complexity of the process of economic development, several factors might come into play, in changeable mixes, and some of them may not fit the notion of an institution.

For example, the interaction among different realms of economic policy that conform a favorable business environment has gained ground in empirical research as a possible set of leading engines of growth. The stellar economic performance of China and South Korea during the last few decades provides some support to the idea that good policies may precede preeminence for strong institutions.⁴

Additionally, research done with micro data sheds light on the role of internal elements at the firm level, such as managerial ability and practices, as well as the impact of industry structure on productivity. For example, the reallocation of

³ For a discussion of conceptual and measurement problems related to institutions, see, for example, Davis, K.E. (2010), "Institutions and Economic Performance: An Introduction to the Literature," in: Davis, K.E. (2010) (ed.), *Institutions and Economic Performance*. Cheltenham. UK: Edward Elgar; and Haggard, S.M. and L.B. Tiede (2011), "The Rule of Law and Economic Growth: Where are We?" *World Development*, 39(5).

⁴ See, for example, Gillanders, R. and K. Whelan (2014), "Open for Business? Institutions, Business Environment and Economic Development," *Kyklos*, 67(4), November.

resources toward more productive firms within an industry can be described as a result of competition and different skill distributions among heterogeneous firms.⁵

In short, the literature and the ample scope of papers presented in this seminar bear witness to the need for multifaceted explanations of productivity.

Policy struggles for promoting productivity

Given that productivity expansion is crucial for economic growth, its promotion constitutes a natural target for policy making. Countries vary in terms of geography, cultural heritage, and other conditions that may affect economic efficiency differently. At the same time, in any nation, room for enhancing productivity growth can almost always be claimed.

The pursuit of this objective faces significant challenges. While some are common to other policy decisions, the difficulties encountered here may be greater due to the following four reasons, at the least. First, there is no silver bullet for resolving the problem of productivity. The economic literature referred to and the discussions held in this conference make it clear that a number of elements may interact.

Second, there is no well-defined list of factors that could ensure high productivity growth in all cases. For example, economists know that reliable institutions, fully

⁵ For a survey of empirical research on productivity based on micro data, see Syverson, C. (2011), "What Determines Productivity?" *Journal of Economic Literature*, 49(2).

operating markets, and competition may provide incentives for investment, human capital accumulation, and productivity growth. However, many other policy decisions may also contribute to the same end, and their combination may vary.

There is no recipe, let us say, based on some composite indicator, with which policy makers should try to maximize results. The best policy mix and the need for concrete institutions may depend on history and the initial conditions of specific countries.

Third, even if we had a clear-cut list of elements for productivity expansion, the relative importance of their components would hardly be undisputed. The consequence of this is that there is no roadmap that is obviously superior to alternative paths for economic reform.

Fourth, though a trajectory did exist that would dictate a preferable sequence of measures, democratic societies require some of these changes to be legislated. International experience demonstrates that political feasibility does not necessarily coincide with economic desirability.

These four difficulties illustrate the fact that our understanding of productivity and our capacity to prescribe changes are necessarily limited, pointing towards the need for caution. Perhaps in no other area, given its breadth, should economic advisers and policy makers exert a greater deal of judgment while, at the same time remaining humble.

In any case, policy makers are expected to use all the information on hand, including the best estimates of theoretical models, to foment a favorable setting for productivity. Sometimes, this may simply mean incrementally removing obstacles, thereby allowing private participants to strengthen the existing institutions that facilitate economic activity.⁶

Additionally, implementation of measures to fuel efficiency must not be considered in isolation. The absence or presence of other policies or institutions that could be necessary should be taken into account. A leading example is that of privatization, in which the lack of an appropriate regulatory framework or governance rules in some countries has produced unintended consequences, including the stripping of privatized company assets.⁷

Finally, it goes without saying that expectations for the potential of economic measures ought to remain realistic. Reasonable expectations are required for social support to continue for the never-ending process of economic modernization.

⁶ Easterly, W. (2008), "Institutions: Top Down or Bottom Up," *American Economic Review: Papers and Proceedings*, 98(2) argues in favor of a "bottom-up" approach in institutional development.

⁷ For a discussion of this problem in the case of transition economies, see Hoff K. and J.E. Stiglitz (2005), "The Creation of the Rule of Law and the Legitimacy of Property Rights: The Political and Economic Consequences of a Corrupt Privatization," *NBER Working Paper* No. 11772, November.

Mexico's productivity challenges

In the last few decades, Mexico's economic performance has been far from impressive. Examination of the data reveals that the main problem has not been either employment or investment, but productivity.

In particular, during the thirty-five years beginning in 1980, GDP per capita grew at an annual average rate of 0.9 percent. Growth accounting reveals that both labor and investment contributed, respectively, 1.1 and 0.6 percent to this moderate expansion, with higher contribution from labor largely reflecting a diminishing dependency ratio during these years. TFP contracted, on average, 0.7 percent per year.⁸

To gain some insight into Mexico's productivity problem, it is useful to examine sectorial productivity performance. Due to a lack of reliable data on capital by sector, we need to focus on labor productivity. For this exercise, I divide GDP in four sectors: agriculture, the manufacturing industry, the nonmanufacturing industry, and services.

For the period under consideration, on average, total labor productivity dropped 0.3 percent per year, with rises in the first two segments of the economy and falls in the latter two. Without an attempt to provide a formal explanation of the contrasting

⁸ Own calculations of growth decomposition based on Kehoe, T.J. and F. Meza, (2011), "Catch-up Growth Followed by Stagnation: Mexico, 1950-2010," *Latin American Journal of Economics*, 48(2); and data from World Development Indicators, International Financial Statistics and Conference Board Total Economy Database.

sectorial development, the following conjectures are relatively safe.⁹

The fastest-growing sector in terms of productivity was agriculture, with an average annual rate of 1.2 percent, mainly reflecting a sharp reduction of the labor force dedicated to this activity.

Average productivity growth in manufacturing was 0.2 percent per year, surprisingly low given the undeniable efficiency levels of some subsectors such as automobiles and electronics exposed to competition in international markets.

Nonmanufacturing exhibited the sharpest contraction in productivity, at negative 1.7 percent. This dismal result is driven mainly by utilities in the hands of state monopolies, and construction, of which a large fraction is self-construction suffering from low scale and lagging technology.

Labor productivity in services also declined, at 1.1 percent, explained, to some extent, by absorption of low-skilled labor from rural areas and widespread levels of informality in some branches of economic activity.

Finally, during the last two years, Mexico has undertaken a program of structural reforms of various areas of the economy. The aim is to tackle some of the evident problems of low efficiency briefly described, by allowing or increasing competition as

⁹ Own calculations of average annual changes based on data from INEGI and the Groningen Growth and Development Centre 10-Sector Database, July 2014.

well as facilitating investment and market operations. Results from these measures depend on the depth of their actual implementation and, in any case, should be viewed as steps along a road that needs to be paved with further changes.

Concluding remarks

Productivity is a central subject for researchers and policy makers, as it bears on the core issues of the potential for sustained economic improvement. This conference has contributed greatly to the efforts of both scholars and practitioners in putting pieces of the productivity puzzle together.

Many factors impinge on a country's productivity dynamics, making it necessary for any explanation to consider the issue in a multifaceted way. The pursuit of higher productivity growth is challenging. Policy makers should avoid looking for a nonexistent panacea, while at the same time recognizing the need for continuous progress.

In Mexico, the bar is also high. Productivity performance has been underwhelming, but a recent program of structural change could yield benefits along the path to greater modernization, if essential building blocks such as the rule of law are reinforced and the reforms are implemented adequately and deeply.