

**Mexico: How to Tap Progress**

Remarks by

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I feel privileged to be with you to speak on the topic of “Mexico: How to tap Progress,” on the eve of this timely conference organized by the Federal Reserve Bank of Dallas. I would like to thank this institution for its kind invitation and the opportunity to share a few thoughts with you.

This conference deals with one of Mexico’s most pressing problems, which is the unsatisfactory performance of its economy, as reflected in a relatively low rate of long-term GDP growth. The subject is fundamental for economists as it ultimately leads back to the question of why some economies grow faster than others for prolonged periods of time, and more specifically, why many countries do not converge to the living standards of rich nations in spite of the fact that the knowledge and technologies of the former are, in principle, transferable to the latter.

Ample research in the theories of economic growth should help us find some clues to understanding Mexico’s experience. But the fact that the Mexican economy is not growing faster is of crucial importance to policy makers. Because the ultimate goal of economic policy is to promote greater social wellbeing, understanding the obstacles to a more dynamic economy is an essential prerequisite for the design of appropriate measures for improvement.

We are fortunate that the Federal Reserve Bank of Dallas has organized this conference, which is in the tradition of Mexican studies carried out by this and other

organizations in the United States and especially, in the state of Texas over the years. I congratulate the Dallas Fed on this initiative and I am confident that your discussions will contribute to more accurately identify Mexico's possibilities for prosperity.

As always, my comments are entirely my own responsibility and do not necessarily reflect the views of the Bank of Mexico or its Governing Board.

### **Mexico's long-term economic underperformance**

Like many countries, during most of the last and the present century, Mexico experienced significant progress on the basis of several indicators of human development. In the last hundred years, the country transformed itself primarily from an agrarian to an urban, service-oriented economy, while undergoing an extensive industrialization process.

During this period, access to better health and education conditions broadened substantially. For example, from 1950 to 2010, life expectancy at birth rose from 34 to 75 years; infant mortality declined from 96 to 13 per thousand live births; the illiteracy rate fell from 43 to 8 percent; and average schooling increased from 2 to 9 years. A similar message could be distilled from other indicators, such as access to tap water, power and sanitation.

Also, without ignoring that ample segments of the population still live in poverty, today most people enjoy the basic benefits of modern life, such as televisions, refrigerators and other electronic appliances, which in the past were either nonexistent or of lower quality and relatively more expensive and thus reserved for only the wealthiest. And according to some human development measures, notably those regarding health, Mexico has reached levels close to those of rich societies.

In contrast to this advancement, the long-term expansion of income per capita, which summarizes the population's capacity to satisfy its desires, has been less impressive. Specifically, during the same six decades —1950 to 2010— the average annual growth in per-capita GDP was 2 percent, a rate which is disappointing, at least, for two reasons.

First, it is similar to that registered during the same period by some mature economies, such as the United States. Since Mexico is a developing country, presumably exhibiting a wider set of basic unexploited investment opportunities, output growth should have been higher, narrowing the development gap with the most industrialized nations.

Furthermore, Mexico's economic evolution compares unfavorably with leading emerging economies which five decades ago were either below or at its own level of income. For instance, while in 1960 Mexico had roughly the same per-capita GDP as

Singapore and more than double that of South Korea, now, some fifty years later, this indicator for Mexico is only one-fifth that of Singapore and less than one-half that of South Korea. Even the so-called stabilizing development era of 1958-1970, which posted the most impressive record in Mexico's modern history, looks inferior when contrasted with these economies, which have converged to developed-nation standards.

Second, the referred overall growth rate covers a significant slowdown in the last thirty years, when per-capita GDP grew, on average, only 0.6 percent per year. This anemic pace, which would take about 116 years for doubling income, occurred in spite of the implementation of market-oriented reforms, including the opening up of the economy to foreign trade and investment, the privatization of state-owned enterprises, and the wide deregulation process.

The record of this recent period does not improve if one excludes the unstable decades of the 1980s and 1990s, characterized by high and volatile inflation, balance of payment crises, and negative shocks to Mexico's terms of trade. A conclusion one might draw at this point is that, in spite of the more robust growth of earlier years, the long-term expansion of the Mexican economy is lackluster. The obvious question, then, is: What are the factors behind this disappointing performance?

## **Exploring the possible causes of low growth**

Various studies suggest that the most significant problem underlying Mexico's slow economic growth is one of productivity. Taking either an identity approach to disentangle labor productivity or a more functional method to estimate total factor productivity, the data suggest that Mexico's main disadvantage relative to more successful countries is a path of low productivity growth.<sup>1</sup>

An implication of this observation is that, although labor and capital are essential factors of production, and a spurt in any of them could contribute to higher growth for some time, the long-term drag for the Mexican economy lies primarily in the low efficiency with which it allocates its productive resources across households, firms, and sectors.

This observation is useful in that it may cast some doubts on the potential effectiveness of reforms that seek mainly to enlarge resources for capital investment. But the usefulness of this finding probably ends here. In the search for obstacles to economic growth, we need to substitute the original question with a new one referring to the possible roots of stagnant productivity.

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<sup>1</sup> See, for example, *OECD Productivity Statistics (Database)* for the first approach, and Kehoe, T. J. and F. Meza (2011), "Catch-up Growth Followed by Stagnation: Mexico, 1950-2010," *NBER Working Paper Series*, December, for the second approach, and García-Verdú, R. (2007), "Demographics, Human Capital and Economic Growth in Mexico: 1950-2005", *Poverty Reduction and Economic Management unit Latin American and the Caribbean region, The World Bank*, June, for both approaches.

Many studies underline, as possible explanations of depressed productivity in Mexico, poor institutions, deficient infrastructure, burdensome regulation, and lack of competition in key areas, among other factors. In order to explore the likely plausibility of these and other factors, I find it useful to examine the behavior of labor productivity, defined as output per worker, and the ratio of workers to total population, and calculate the former for each of the four comprehensive sectors of the economy: agriculture, manufacturing, nonmanufacturing industry (mining, utilities and construction), and services. In the most recent worst-performing period, with available data for 1980-2005, three basic observations are noteworthy.

First, meager per-capita GDP growth during these years was the net result of an increase in the ratio of workers to population, whose effect slightly surpassed that of a fall in aggregate labor productivity.

Second, aggregate labor productivity fell because, relative to total labor in the economy, production dropped in agriculture and nonmanufacturing more than it grew in manufacturing and services. In other words, the increasing role of manufacturing and services in the Mexican economy did not sufficiently compensate for the diminishing influence of the other two, smaller sectors. [Table 1](#)

Third, sectoral labor productivity increased only in the least and in the most productive sectors: agriculture, mainly because of labor emigration, and

manufacturing. In the other two sectors labor productivity declined at roughly the same pace. [Table 2](#)

It seems that if some aspects are highlighted as obstacles to economic expansion, they should be proven to have a significant influence on those sectors identified as negative contributors to productivity growth. Specifically, the fall of labor productivity in the services sector should be given more importance than that observed in nonmanufacturing, when the relative sizes of these two sectors in the economy are considered.

At a conjectural level, one might identify a possible common characteristic between the two, given that the fall in nonmanufacturing labor productivity has been concentrated in construction and that in services has been generalized, with the only exception being transport, storage, and communications. A large part of both construction and services exhibits a high degree of informality. It is well known that informality is linked to small-scale production, low investment in new technologies, and poor incentives for human capital accumulation.

Additionally, a prominent feature of large service segments, such as education and health, is a lack of or limited competition among providers, lowering incentives to seek efficiency.

On the other hand, one must find possible reasons as to why manufacturing has not registered more robust labor productivity growth. It might be the case that the opening up to foreign competition has taken many years and until recently allowed a certain degree of protection, especially from competition with countries not covered by free trade agreements.<sup>2</sup>

### **The role of deep structural reforms**

The previous conjectures provide examples of possible factors that might have some bearing on Mexico's aggregate labor productivity deterioration. Of course, not even at this speculative level does the questioning end. One must uncover the root causes of the aforementioned factors.

A key example is the prevailing informality in the previously mentioned sectors with weakening labor productivity. In any country, the origin of such a phenomenon is typically associated with excessive regulation and taxation, making it optimal for relatively unproductive firms to enter the informal sector, which, in turn, could be a cause of lower investment in human capital, inducing dynamic inefficiency.<sup>3</sup> Another example is low credit penetration, which is frequently connected to poor contract enforcement, and the size of informality itself.

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<sup>2</sup> For example, as late as 2004, Mexico's average import tariff was 14 percent. For the role that competition might have on manufacturing firms' adoption of new technologies, see Salgado, H. and L. Bernal (2011), "Multifactor Productivity and its Determinants: An Empirical Analysis for Mexican Manufacturing", *Journal of Productivity Analysis* Vol. 36(3), December.

<sup>3</sup> For an excellent exposition of static and dynamic inefficiency arguments applied to informality, see Heckman, J. J. et al. (2010), "Policies to Promote Growth and Economic Efficiency in Mexico," *NBER Working Paper Series*, November.

There is wide consensus that Mexico needs structural reforms to enhance productivity growth. In order for any initiative to be promising in terms of its envisioned results, it is essential to better understand the structural impediments to the expansion of productivity.

In my opinion, the first challenge lies in measurement. Many good studies on Mexico's discouraging long-term economic performance fail to subject their hypotheses to statistical verification. In some cases, arguments for one-off effects on productivity are confused with those more suitable for explaining dynamic consequences. To explain low productivity growth, one needs to identify factors that not only affect levels but also rates, through channels such as the accumulation of human capital and the adoption of new technologies.

Also, because of relatively richer data in terms of detail, time, reliability and industry-specific price indices, among others, much research has been devoted to scrutinizing manufacturing, while the rest of the economy has faced less examination in spite of the fact that major productivity problems lie outside manufacturing.

In addition to measuring the possible barriers to productivity, it is necessary to quantify the intended benefits of specific structural reforms to the extent this is possible. Empirical studies on Mexico's previous structural reforms are surprisingly

scant. Yet, estimating the expected effects is indispensable to an objective assessment of future concrete reforms.

### **Concluding remarks**

The unsatisfactory long-term performance of the Mexican economy is of significant interest to both economists and policy makers. Low per-capita GDP growth does not reflect mainly a problem of employment and investment, but one of productivity. In order to envision more rapid improvement in social wellbeing, we need to identify the structural obstacles to productivity expansion, notably in services and nonmanufacturing industries.

Structural reforms should, then, be focused on removing the root causes of impediments. A major task is one of measurement, as shown by the fact that statistical studies quantifying the effects of previous structural changes are relatively scarce. I am confident that your discussions will contribute greatly to an understanding of what Mexico needs to do to attain much higher levels of prosperity.

**Table 1**  
**Sectoral distribution of aggregate labor productivity**  
**Millions of Mexican pesos, 1993 prices**

	<b>Total</b>	<b>Agriculture</b>	<b>Manufacturing</b>	<b>Non-manufacturing</b>	<b>Services</b>
<b>1980</b>	38.5	2.9	8.0	3.5	24.1
<b>2005</b>	38.3	2.3	8.3	3.1	24.6
<b>Change</b>	-0.1	-0.6	0.3	-0.4	0.5

Note: Value-added in constant prices relative to the total number of persons employed in the economy, based on Groningen Growth and Development Centre 10-sector database, June 2007, <http://www.ggdc.net/>

**Table 2**  
**Labor productivity by sector**  
**Millions of Mexican pesos, 1993 prices**

	<b>Agriculture</b>	<b>Manufacturing</b>	<b>Non-manufacturing</b>	<b>Services</b>
<b>1980</b>	10.2	40.0	42.8	55.8
<b>2005</b>	14.6	47.5	32.2	43.1
<b>Change</b>	4.5	7.5	-10.6	-12.8

Note: Value-added in constant prices relative to the number of persons employed by industry, based on Groningen Growth and Development Centre 10-sector database, June 2007, <http://www.ggdc.net/>