

The Low Productivity Trap

Growth Diagnostics of Chiapas

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Executive summary

Chiapas is not only the state with the lowest per capita income of Mexico, but it is also the one with the lowest growth rate in the last decade. As a consequence, the gap that separates Chiapas from the rest of the country has been widening significantly over time. This performance is at odds with the prevailing environment of relative macroeconomic and institutional stability over the same period.

Chiapas' low income levels are consistent with its incapacity to produce goods that can be sold beyond its borders. Its per capita exports are among the lowest in Mexico, and they are mostly concentrated in agricultural commodities, which are sold in highly competitive markets with very low margins.

What are the reasons behind Chiapas' poor performance? This paper follows the Growth Diagnostics methodology developed by Hausmann, Rodrik and Velasco (2005), and adapts it to the subnational context. Our objective remains the same: to identify the most binding constraints to economic growth in Chiapas.

According to our results, the most binding constraints to growth are not to be found among the usual suspects. The low levels of schooling are somewhat associated to Chiapas' performance, but they only explain a small part of the gap. The topography and climate of Chiapas impose a challenge for the construction and maintenance of its infrastructure, but the latter does not appear to be the main constraint to its productive development. Neither there is evidence for credit market failures. The low levels of private credit in Chiapas are more associated to the low-productivity economic activities in place than to bottlenecks or insufficient credit supply.

Our conclusion is that Chiapas suffers from a (low) productivity trap. Its main problem is a low complexity economy, a reflection of its few productive capabilities. Modern production systems require a number of complementary inputs that are absent in Chiapas. Within this context, productive diversity and private investment are low because the returns are also very low. Since the demand derived from private investment is low, this inhibits the appearance of a supply of complementary inputs, resulting in a coordination failure from a chicken-and-egg problem. State intervention is necessary in order to solve this issue. Of the

few examples of manufacturing exports in Chiapas, many are the result of successful state interventions to coordinate investments in the indispensable public inputs for production where they are demanded. This fact constitutes the main argument for the creation of Special Economic Zones.

This situation is additionally aggravated in Chiapas due to the confluence of three factors: (1) high government transfers, (2) absence of public transportation, and (3) low education levels of the workforce.

The government transfers have similar effects to what is known in the economic literature as the Dutch Disease: they increase the cost of tradable goods, thus biasing the economic activity toward non-tradable sectors. The absence of a public transportation system directly reduces the net benefit of commuting to a city for work if you live in the countryside. Hence, a dual equilibrium exists, with significant differences in wages offered between cities and their nearest rural communities, across the entire spectrum of professions and occupations. Finally, even though Chiapas has been gradually closing its schooling gap with respect to the rest of the country, there are still important differences. In our opinion, these gaps are related to the fact that the choice to invest in formal education is in part endogenous to the education returns. Following this premise, the education gaps reflect the difference in production methods between Chiapas and the rest of the country. For this reason, we observe that although the returns to schooling are higher in Chiapas, at any education level it is more profitable to emigrate (to somewhere where other complementary inputs are in place that allow for higher productivity and wages) than to stay to work in Chiapas. The emigrants from Chiapas, although few, earn similar incomes to the native workers with similar schooling levels at the place of destination.

The policy recommendations that result from this diagnostic point to the need to take advantage of the knowledge already present in the main urban centers of Chiapas and the rest of Mexico, to promote the diversification towards other, more complex activities that can build on the capabilities already present. The creation of a public transportation system to link the rural communities surrounding the urban centers could relax the constraint on the urban labor supply, while at the same time opening more work opportunities for the people from these communities. This is a typical example of the chicken-and-egg dynamics that predominate in Chiapas; insofar as a minimum scale is required for the creation of an efficient public transportation system.

Our prescription suggests that the mountain should be taken to Muhammed, given that Muhammed has not gone to the mountain. In other words, we seek to solve the coordination problems through an intervention that brings the job opportunities closer to where the workers live, given that the latter have not found it profitable to go to where the

job opportunities should be. There are rural areas with low participation rates and high poverty rates in the areas around San Cristóbal de las Casas. This is also a region where high levels of uncertainty regarding private economic activities prevail, given the prevalence of the *ejido* system of communal property. An implication of our analysis calls for the creation of an Industrial Park around San Cristóbal which would solve the lack of public goods that have kept private economic activities away (e.g. legal uncertainty, access to land, social conflicts), while bringing firms closer to where the labor force is. The experience within Chiapas of firms like Arnecom-Yazaki indicates that after short training periods, workers in Chiapas can become part of relatively modern production systems and work in high-productivity environments.

This solution is a first step toward a sustainable dynamic of development, through successive productivity improvements derived from the state's productive transformation and the progressive adoption of more modern production systems. In order to grow, Chiapas should first learn to do things that are already produced in the rest of Mexico and that can be sold outside the state. From there, an economic fabric and knowledge associated to more modern production methods will be created, from which its export capacity can gradually be developed and more complex activities can be pursued. This process requires coordination among the different actors, the government (national and state), private sector, and academia, with the goal of actively looking for related, high-productivity activities, as well as identifying and solving dynamically the new bottlenecks as they arise.