SEMINARIO DE MARZI, Bruno, 2015, *El desarrollo de la economía peruana en la era moderna: precios, población, demanda y producción desde 1700*, Lima, Fondo Editorial de la Universidad del Pacífico. 1,300 pp.

This magnificent work reconstructs dispersed and fragmented information to estimate a 300-year longitudinal series of prices, production, and income in Peru. These series, currently the longest in the Americas, make it possible to carry out an international comparison of Peruvian economic performance primarily with European economies. In spite of the difficulties in establishing the boundaries of the political unit of analysis, the author suggests that it refers to the Audience of Lima as the antecedent of today's Peru. Two eras are identified after 1700: the Bourbon era from 1719 to 1860, or colonial Peru; and modern Peru, which begins in 1861 and lasts until today.

The economic cycle has two phases, depression and expansion, with an average duration of 53 years. Thus, the latest economic cycle (including depression followed by expansion) in Peru began in 1976 and has lasted approximately 50 years, which is consistent with the average length over the last three centuries. The expansionary phase started in 1990 and will continue, despite the current economic slowdown, for ten additional years. Average growth during this expansionary phase is 3.5%, a percentage that compares favorably with the expansions in the previous three centuries, with the exception of the cycle between 1929 and 1976, when the average growth rate was 3.8%.

The first distinctive characteristic of the evolution of GDP in Peru is its volatility. The existence of long-lasting economic cycles includes long expansion phases of 35 years or more, followed by depressions that last between 15 and 20 years, during which per capita income declines. This could have been twice as much if corrections had been made for extreme observations in the economic crises. As might be expected, economic catastrophes (epidemics and earthquakes in the 18th century, indigenous rebellions towards the end of the 18th, the wars of Independence between 1790 and 1824, the War of the Pacific towards the end of the 19th century, the crisis of 1929, the 1980 foreign debt crisis, the pernicious economic policy at the end of this same decade, and the El Niño phenomenon) have had highly destabilizing effects.

Expansions were often linked with international technological changes that preceded notable increases in the demand for certain raw materials or commodities. The depressions, usually initiated by slowdowns, are responsible for Peru's lag compared to European countries. The Peruvian economy has lacked the capacity to reduce the incidence or even mitigate the impact of so-called cascade effects (resulting from low probability events such as natural disasters and wars). Therefore, these disasters have a catastrophic impact and recovery time is long. This contrasts with European countries that generally possess higher levels of assets and capacities for recovery which often serve as more efficient buttresses in a crisis.

Some experts in economic development have argued that factors such as errors in economic policy, the absence of adequate institutions, demographic heterogeneity, cultural heritage, corruption, climate or altitude can explain "underdevelopment" or the relatively lower levels of development in economies such as that of Peru. They argue that combinations of these factors are responsible for anemic economic growth and the resulting poverty. Nevertheless, it turns out that Peru's average growth during the expansive phases of its economic cycles could be higher than the growth rates of more advanced European countries such as the United Kingdom and Spain. Over the course of several long-lasting expansionary phases, Peru's economy grew by three percentage points more than did some industrialized countries. This finding poses challenges to institutionalist and neoclassical theories that do not consider the administration of economic crises in countries such as Peru.

The second characteristic of the behavior of the Peruvian economy is its insertion in the global economy as an exporter of raw materials. During the third and fourth cycle of world hegemony – the eras of Great Britain and the United States – Peru lagged behind even more because its expansions were subject to bonanzas in prices of raw materials. At the same time, structural change in Peru implied a transition from an agrarian economy to a service economy in which mining and manufacturing contributed relatively little to the total GDP. This, in spite of the enormous importance of mining exports in the generation of foreign exchange and growth.

A third characteristic of Peruvian development is demographic influences (the evolution of fertility, the spatial concentration of the population in Lima, and migratory processes). Although estimates of the size of the population at the time of Conquest vary, the author calculates that there were 3.3 million inhabitants in 1520 (p. 501). Nevertheless, because of the demographic catastrophe brought on by the wars of colonization and encounter, the population fell between 83% and 90%. In 1669, the size of the population was the lowest its history – 586 thousand inhabitants – and 90% lived in the Andean highlands. By the beginning of the 19th century, the population had doubled while during the Bourbon era, demographic growth resumed and ethnic and cultural diversity expanded. After 1860, demographic growth was explosive, and inward migrations considerably increased the size of cities and affected the spatial distribution of the population. Today, more than half the population lives on the coast and there is considerable deconcentration in the central Andean highland region. In addition, the rapid aging of the population is unavoidable and will affect future per capita income.

The evidence presented in this book demonstrates that regional inequality and the progressive lag of Peru in comparison with European countries began during the Republic. Mining activity was not the most important factor and Peru has transitioned from being an agrarian society to a society of services. Finally, the expropriation of the land of peasant communities and the formation of the haciendas and farms of the oligarchy were the result of the wars of Independence. During the colonial period, the integrity of peasant communities allowed the Spanish Crown to collect the taxes necessary to defray the costs of its attempts at expansion in Europe and the decline of its economic dynamism after the Napoleonic wars.

In sum, by greatly compressing into one paragraph the abundance of historical evidence presented by the book and the national accounts kept starting from the colonial period, it can be affirmed that that there have been three basic structural processes in Peruvian development. First, economic cycles seem to have a 53-year life cycle. They repeat themselves and thus it is possible to identify patterns of growth that are, to a certain point, independent of intentions, economic policies, and expectations. Second, Peruvian specialization in raw materials has been maintained as a constant during the last 300 years. And, third, the progressive aging of the population after reaching a high in 2030 will render Peru a country which is aging rapidly, causing a loss of vigor and invoking the demographic imperatives currently experienced by other countries, whether developed or emerging.

What are the economic policy implications that arise out of these processes? Quite deliberately, the author does not consider the sphere of volitions, visions or interventions. Nevertheless, even when recording historical documentation and administering quantitative information, the researcher takes a series of decisions that reflect values and preferences. For example, to what degree can as vast a study as this be impervious to an analysis of the impact of the exercise of power by economic and financial groups or negotiations of gender and the influence of patrimonial societies in decision-making? The inclusion of these dimensions in the analysis of the performance and lag of Peru would allow for a more in-depth study of the country's history, society, and economy. This is pending task which will complement this extraordinary work.

Without doubt, it can be affirmed that Professor Seminario's book will become a classic of Peruvian academic literature.

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