Letter from the Director

This issue of *Economía Teoría y Práctica* (ETYP), no. 51, contains seven articles and one review, for your perusal and reading pleasure. It is worth noting that several of these pieces were on hold for quite some time, waiting to be published. At times, this is due to complications with editorial committee member contributions, and then the processes of revision and attention to suggestions from the dual judging system further lengthen it. We certainly understand the pressure of authors to publish but also hope they view this process as part of the learning and research path, leading to a bolstered final product. Here, we recommend embracing the metaphor in the poem "Ithaca" by Konstantino Kavafis: "When you leave for Ithaca, may your journey be long and full of adventures and knowledge. [...] have grown rich with what you learned on the way. Don't expect Ithaca to give you many riches. Ithaca has already given you a fine voyage." We therefore recommend that authors process committee suggestions carefully so that the interaction with these specialists improves the final versions submitted. In turn, the magazine's editorial committee encourages possible members to accept and enjoy the invitation to review documents proposed for publication. Their work is highly valued and leads to further learning within the field of economics, particularly on the topics the magazine is known for. The joint efforts of everyone involved in the process enhance *Economía Teoría y Práctica*.

New techno-economic paradigms have provided radical changes in technological problem-solving. Biotechnology has unleashed a wave of new processes, products and organizational and social systems that have spread to other sectors and industries, such as pharmaceuticals, agriculture, agroindustry, the environment and others. Furthermore, diffusion, development of technological capacities and innovation have taken place in industrialized countries above all, though also in some emerging nations that have invested substantially in human capital and R+D within the context of various institutional policies geared to promoting innovation of this paradigm. Several scholars in this field pose such questions as: why are there technological gaps among countries, what are the effects for the economies that lag the most, and are convergences toward leading countries possible?

Innovation within this new paradigm in two North American countries is addressed in the article "Innovation Trends in the Biotechnology Sector: Analysis of Patents in Mexico and United States," coauthored by Mario Alberto Morales and Marcela Amaro, both from the Universidad Nacional Autónoma de México, and Federico Andrés Stezano, of the Instituto Tecnológico Superior de Monterrey.

Concerned with measuring the differentials of biotechnological innovations patented in Mexico and in the United States, as well as their level of technological complexity, the authors set out to identify technological trends, the number of patents granted to residents and non-residents by uspto offices and the IMPI during the 2009-2014 period, and the subclasses in which they are patented. They thus pose the question can a convergent or divergent tendency be observed in new products or processes within the various subclasses of biotechnology patented in Mexico with respect to the United States, especially in the case of firms? How do the innovation capacities of Mexican biotechnological firms compare with those of leading countries?

In the context of analyzing major institutional changes that have strengthened biotechnology, industrial strategies and international competition in the sector, the authors specify entrance barriers put up at several types of intellectual property systems with respect to biotechnological patents. Using a comparative methodology of patents in biotechnological classes and subclasses, Morales, Amaro and Stezano identify the technological gap in the two countries in question, which shows not only capacities of inventiveness but also of diffusion. The proposed characterization of Mexican biotechnological companies leaves in its wake huge challenges for the biotechnological sector in Mexico, including adequate interaction between scientific and technological policies, institutions, universities and companies.

The maquiladora industry entered the global production village dominated by monopolic and oligopolic firms. This phenomenon has led to transforming the productive structure of nations, with breaks in national production chains, though also with external factors that can benefit host countries. Maquiladoras have also led to shaping an international labor market, with differentiated functions, capacities and remunerations between workers from northern countries and those from the south. The latter point is precisely the topic that Pedro Alberto Herrera, Mónica Lorena Sánchez and Diana Marien Escobar, from the Universidad Autónoma de Tamaulipas, deal with in their article "The Maquiladora Industry Labor Market in Mexico, An Oligopsony: Effects of the New International Division of Labor."

Based on quantitative and qualitative studies carried out in the border cities of Tijuana, Ciudad Juárez and Reynosa, between 2012 and 2016, the authors focus on describing the maquiladora labor market. How does oligopolic market power influence labor dynamics, remunerations and vacation periods? What is the dynamic of labor supply and demand when faced with the phenomenon of national migration, and what impact does it have on salaries? How can the weakness of labor unions or associations be explained? Is the nature of Mexican maquiladora work oligopsonic, or are other practices involved?

Herrera, Sánchez and Escobar's findings are extremely interesting when it comes to rethinking the maquiladora work environment, enclosed by an international division of labor with poor salary conditions and tremendous instability in terms of working conditions, while companies reap huge benefits.

The effects of tobacco consumption on health have been extensively discussed in numerous scientific publications and international forums. Cesar González, Silvia Núñez, Manuel Ramírez, Mario Rodríguez, Catalina Santos and Jorge Ibarra, of the Tecnológico de Monterrey, report on their research aimed at analyzing the efficiency of strategies implemented to reduce smoking, in the article titled: "Labeling Regulations in the Mexican Tobacco Industry: Effect of Pictorial Warning Labels on Tobacco Demand."

Following a specialized literature review on the topic, as well as identifying the international agreements and regulation policies dealing with smoking control and their adoption in Mexico, the authors focus their study on labeling and packaging regulations in the national tobacco industry.

Based on conventional, short-sighted and rational models of demand, in addition to econometric estimates, the authors analyze the impact of using health warnings with pictographs during the 1994 - 2013 period. Just as experts on the subject find health alerts on cigarette packs to be beneficial in reducing the prevalence of smoking, the findings of the study seem to confirm similar effects. Thus, the authors contribute to strengthening packaging and labeling regulations in Mexico with an appropriate justification based on the research results.

Economic convergence processes among countries have largely focused on economic growth. It is also very important, however, to understand what happens in the financial realm. Ruth Ortiz Zarco and Ignacio Perrotini Hernández, of the UNAM, examine what happens in the countries that comprise the North America Free Trade Agreement (NAFTA), now called the United States-Mexico-Canada Agreement (USMCA), during the 1980-2015 period, in their article "Monetary Policy Asymmetry and Convergence between Canada, the US and Mexico." The authors question whether the agreement has contributed to convergent or perhaps divergent monetary policies, and in turn commercial flows, among the three countries in the region.

On the basis of an empirical analysis of monetary variables in Canada, the United States and Mexico, Granger causality tests and vector error correction models (vec), the authors set out to determine whether their hypothesis of there being formal convergence in the institutional monetary policy framework and real divergence in the evolution of the fundamental monetary variables of the three economies comprising nafta is correct. Its reading contributes to identifying the monetary policies in the North American countries that have or have not converged, what variables have expressed such trends and how the effects have been reflected on the formal economy and, more specifically, on commercial competitiveness. The analysis also leads to policy recommendations.

In another aspect of financial issues, José Carlos González Núñez and Delfino Vargas Chanes, of Universidad Anáhuac and Universidad Nacional Autónoma Metropolitana, deal with a financial marginalization measurement index, considering four dimensions: formal and informal savings, formal and informal credit, insurance and use of financial channels. In their article titled "Measurement of Financial Marginalization in Mexico: A Latent Class Approach," they attempt to carry out an analysis of latent classes aimed at identifying the relevant variables that determine such marginalization of families, from the demand perspective and based on the results of the 2012 national financial inclusion survey. They also seek to contribute to thinking about public policies for the development of an inclusive and solvent financial system.

Following a theoretical review of the context of the state of access to basic financial services in Mexico, the authors suggest that greater marginalization of families from formal and informal financial services is related to economic, social, institutional and financial education variables. A statistical analysis of the survey and methodology for construction of the financial marginalization index, the analysis of latent classes and that of missing data enable José Carlos González and Delfino Vargas to rate the importance of financial dimensions, as well as for which and how strongly greater or lesser financial marginalization of families is expressed. Their results show how formal and financial education, the size of the places where they live, remittances and gender of individuals influence probability of being placed in the latent high financial marginalization class. The goal of their work is ultimately to contribute to proposing public policies aimed at reducing this type of marginalization.

Two aspects that not only concern Mexico as a whole but the population of different states are addressed by Hilario Barcelata Chávez and Rafael Vela Martínez of the Universidad Veracruzana in "Subnational Public Debt and Local Economic Development." The authors consider how local government public debt has increased logarithmically in states in the country, justified by obtaining new public resources through financial instruments previously unavailable to respond to progressive social demands given insufficient budgetary sums in state public coffers. They wisely ask: "Has subnational public debt had a positive effect on development at the state level?" since despite access to greater financial resources, states do not seem to reflect improvement in development and social welfare in terms of state economic growth and decrease in poverty among their people, though they do show public debt expansion.

With this outlook, Barcelata and Vela undertake a comparative analysis of the mechanisms of financial indebtedness in methodologically identified state governments during the 2004-2013 period. Subsequently, they point to the links between debt and development as of the evolution of the gross state product (PIBE) and that of public works investment and their possible effects on economic growth and social welfare improvement, with special attention on whether poverty has diminished.

The findings of this study reveal dissimilar cases of debt and development among states, and the results seem to confirm its hypothesis with highly suggestive observations that lead to reflection on the policies that have attempted to direct economic and social development by means of increased indebtedness.

This issue ends with a contribution by Emiliano Andrés Mussi, of the Universidad de Buenos Aires, on "Methodological Notes for Calculating the Profit Rate of Individual Industrial Capital in Argentina Using Annual Reports and Accounting Balance Sheets." From a Marxist viewpoint, the author is concerned with advancing the study of specific problem areas in profit rate calculation, particularly in the case of Argentina. A theoretical review spans a broad period of time, in which studies on profitability of enterprises stand out, from appraisal of agriculture and livestock farms in the late colonial period, through the time of capital accumulation, between 1960 and 1979, and up to the present. This leads to proposing a methodology geared toward re-estimating the fixed constant capital to appraise and the profits obtained to determine individual capital profit rate, as well as addressing the various price indexes when working with balances. Finally Mussi discusses his results and reflections on the progress made and existing limitations.

Alenka Guzmán
Editor-in-chief