REVISTA MEXICANA DE ECONOMÍA Y FINANZAS Nueva Epoca REMEF (THE MEXICAN JOURNAL OF ECONOMICS AND FINANCE)

The Mexican Journal of Economics and Finance New Era | REMEF Volume 15 Issue 1, January - March 2020



## EDITOR'S NOTE

The chief editor, Francisco Venegas-Martínez, and the co-editor, Gerardo Dubcovsky, of the Mexican Journal of Economics and Finance (Spanish: Revista Mexicana de Economía y Finanzas, REMEF) have the pleasure to announce to our community (authors, arbitrators, and readers) the following actions and events.

First of all, we would like to express our deepest gratitude to **Luis Contreras Aguirre** for his management as President of IMEF Research Foundation during 2018 and 2019, and for his unconditional support for REMEF in its growth as a scientific journal during this period. In these two years, REMEF doubled the number of articles published (from 20 to 40 per year), consolidated its Editorial Board with the incorporation of Carmen Reinhart Ph.D., and Antonina Ivanova Boncheva, Ph.D., improved its editorial practices, now has a readership in 81 countries around the world, and entered the evaluation process to join SCOPUS and Web of Science.

Furthermore, we welcome **Francisco Javier Soni Ocampo**, who will serve as president of IMEF Research Foundation in 2020 and 2021.

We also wish to highlight that this issue includes an article by **Marco Avellaneda**, **Ph.D.**, a distinguished professor and researcher at New York University, who has a great deal of experience in the financial sector. Marco Avellaneda, Ph.D., is widely recognized for his stochastic volatility models in option pricing. In 2018, he was awarded the III FIMEF Financial Diamond Award. Additionally, he is an Associate Editor of REMEF.

The articles published in Volume 15, Issue 1, are the following:

The first article is entitled *"Hierarchical PCA and Applications to Portfolio Management"* by **Marco Avellaneda** (Courant Institute of Mathematical Sciences, NYU, USA). This article evaluates the performance of assets in a multivariate market in which securities can be grouped into sectors or blocks (e.g., GIC sectors, or derivatives associated with different underlying assets).

The second article is entitled "Expectations in Interest Rates and News on USA Monetary Policy" by Gilberto Anzaldo (Universidad Anáhuac, Mexico) and Guillermo Benavides (Universidad del Valle de México). This research estimates the expected value of the level of interest rates (10-year T-Note) of a representative agent and its significant variations at the time of the Taper Tantrum. In order to achieve the objective, the study estimates the risk-neutral density of the interest rate extracted from the option prices, which has implicit information on the expectations. The results obtained indicate that the proposed methodology implicitly measures expectations in the debt market.

The third article is entitled "Linear and Nonlinear Causality between Marriages, Births, and Economic Growth" by Carmen Borrego-Salcido, Raymundo Juárez-Del-Toro (Universidad Autónoma de Coahuila, Mexico), and Salvador Cruz-Aké (Instituto Politécnico Nacional, Mexico). This article aims to identify the number of births as a leading indicator regarding periods of crisis for Mexico and other countries with different levels of economic development. In order to establish the supposed behavior of the number of births,

simple graphical evidence, Granger causality, and phase synchronization between a set of economic variables and life decisions, such as having a baby and marriage, were used. The results for all the countries studied demonstrated anticipated behavior of the number of births with respect to key economic variables, and some causal relationships.

The fourth article is entitled "Pass-Through Effect in Mexico in High and Low Volatility Conditions" by Jorge Ignacio Rodríguez Carranza, Leticia Hernández Bielma, and Belem Iliana Vásquez Galán (El Colegio de la Frontera Norte, Mexico). This article aims to measure the pass-through effect in conditions of high and low exchange rate volatility of the peso-dollar on the prices of the distribution channel in Mexico. The results of the accumulated pass-through elasticities indicate that pass-through generates a greater percentage change in producer, consumer, and importer prices in conditions of high volatility.

The fifth article is entitled "Selection of the Model that Best Estimates Fair Value in an Emerging Market" by **Paula Morales Bañuelos** (Universidad Iberoamericana, Mexico). This article aims to find the model that provides the best possible estimate of the Fair Value of the items that comprise financial statements, considering ambiguity in the regulations regarding its calculation. To this end, three methodologies were compared: Discounted Cash Flows, Real Options under Geometric Brownian Motion (GBM), and Real Options under Arithmetic Brownian Motion (ABM).

The sixth article is entitled "Financial Time Series Forecasting Using Artificial Neural Networks" by **Roberto Gallardo Del Ángel** (Universidad Veracruzana, Mexico). This article develops a financial prediction using Artificial Neural Networks. The analysis uses the Traditional Backpropagation algorithm, and then Resilient Backpropagation to estimate the weights in networks. Using the Resilient Backpropagation algorithm makes it possible to solve the problem of determining the learning rate.

The seventh article is entitled "The Optimal Moment to Invest in Coffee Agribusiness (An Application of the Real Options Theory)" by Zenón Hernández Álvarez and María De Jesús Ramos Álvarez (Universidad Autónoma Chapingo, Mexico). This article demonstrates how to quantify and incorporate uncertainty in determining the most opportune moment for a coffee company to invest in marketing its coffee as green gold toasted in the national market. The real options theory, through the model of optimal investment moment, makes it possible to decide whether to invest or not through a critical value.

Finally, the eighth article is entitled "Impact of the Diversification Strategy on the Financial Performance of Companies in the Mexican Stock Exchange" by Eduardo Arango Herrera, Francisco García Fernández, and José Antonio Serna Hinojosa (Universidad Autónoma de Tamaulipas, Mexico). This article aims to analyze the impact of diversification through Herfindahl and Entropy metrics on financial performance (EBITDA and Q-Tobin). The results demonstrate that the diversification metrics used are significant when performance is measured using EBITDA.

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