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Forecasting Latin-American Yield Curves: An Artificial Neural Network Approach

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This document explores the predictive power of the yield curves in Latin America (Colombia, Mexico, Peru and Chile) taking into account the factors set by the specifications of Nelson & Siegel and Svensson. Several forecasting methodologies are contrasted: an autoregressive model, a vector autoregressive model, artificial neural networks on each individual factor, and artificial neural networks on all factors that explain the yield curve. The out-of-sample performance of the fitting models improves with the neural networks in the one-month-ahead forecast along all studied yield curves. Moreover, the three factor model developed by Nelson & Siegel proves to be the best choice for out-of-sample forecasting. Finally, the success of the cross variable interaction strongly depends on the selected yield curve.

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