

A Daily Indicator of Financial Conditions in Brazil Employing a Variational Autoencoder

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Abstract: This paper aims to leverage an unsupervised neural network approach to develop a daily Financial Conditions Index for Brazil. Our index exhibits desirable characteristics and demonstrates robust predictive capacity in assessing the effects of fluctuations in financial conditions on macroeconomic variables. To address the predictive capability of this index and the influence of financial conditions on macroeconomic variables, we employ an empirical approach that harnesses the conditional heteroscedasticity of fundamental disturbances proposed by Normandin and Phaneuf (2004). The key findings indicate that adverse financial conditions contribute to a decline in economic activity and a reduction in inflation.

Keywords: Financial Conditions Index, Variational Autoencoder, Economic Activity, Inflation

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