



# Nonlinear relationship between the weather phenomenon El Niño and Colombian food prices (Available in Spanish only)

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## ABSTRACT

Extreme weather events, like a strong El Niño (ENSO), affect society in many different ways especially in the context of recent globe warming. In the Colombian case, ENSO had a significant impact on consumer food prices during the strongest event in 2015-16. Our research evaluates the relationship between ENSO and Colombian food inflation growth by using a smooth transition non-linear model. We estimate the impacts of a strong ENSO on food inflation growth by adopting Generalized Impulse Response Functions (GIRFs) and the results suggest that the weather shocks are transitory and asymmetric on inflation. A strong El Niño shock has a significant effect on the food inflation growth from six to nine months after the shock and the accumulated elasticity is close to 465 basic points. We build the GIRFs for eight different episodes associated with a strong El Niño in the period corresponding from March 1962 to December 2018 and there is no evidence of changes in the size of Colombian food inflation growth responses over time.