

Desarrollo alternativo: the Sensitivity of Colombian Coca Production to Legal Commodity Price Shocks

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Abstract:

Colombia is the world's major producer of coca leaves. An important pillar of Colombia's efforts to curb the production of this illicit crop is to induce farmers to substitute coca for a viable legal alternative. In this paper we identify the extent to which farmers respond to variation in the price of five of the most promising legal alternatives when deciding how much coca to plant – coffee, palm oil, cocoa, sugar, and banana. We do this using a rich, spatially very detailed dataset that contains yearly information on the amount of coca grown in each of over 31,000 villages (veredas) in Colombia over the period 2001-2018. For identification, we exploit exogenous variation in legal commodity prices, in combination with detailed information about the soil and climatic suitability of each village for growing the five alternative crops that we consider. We find that farmers in villages more suitable for growing coffee and banana respond to price increases of these particular legal alternatives by planting less coca. We discuss why we find this effect for these two crops only, and not for cocoa, sugar, or palm oil. Moreover, the response to price shocks is strongest in villages with better market access.