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EXECUTIVE SUMMARY

CURRENT UNEMPLOYMENT VARIANCE DECOMPOSITION AND CONSEQUENCES OF USING PROXIES

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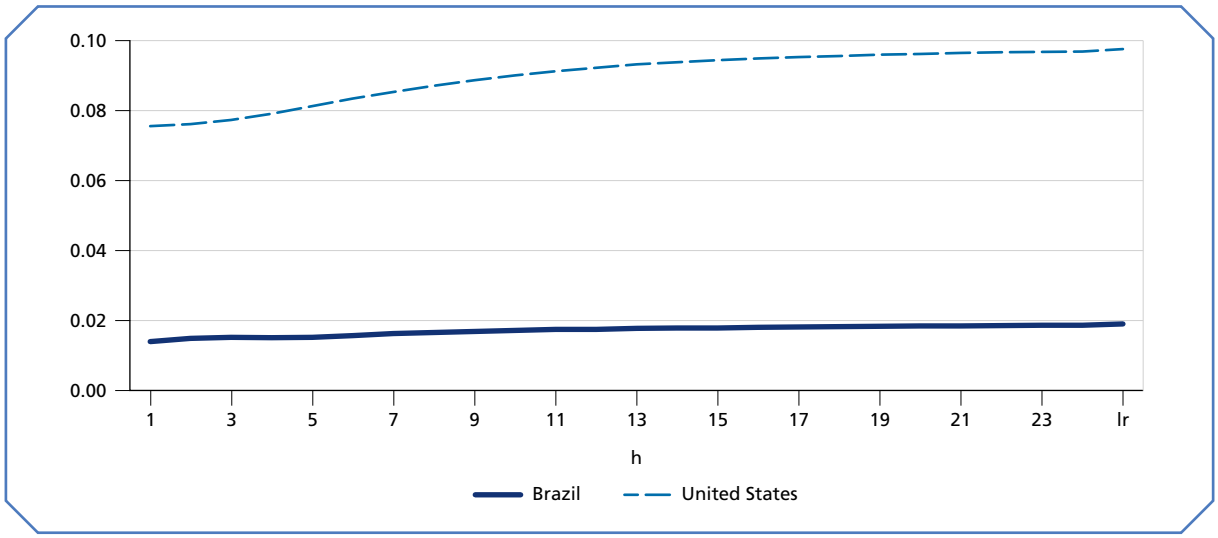
In this article we propose to decompose the variance of the *current* unemployment rate as a function of the labor market flows and an additional element that captures the contribution of using proxies for the current rate. Apart from decomposing directly the variance of the current rate, one of the virtues of the proposed method is to unveil the adequacy of the chosen proxy for the variance decomposition of the actual rate.

We apply the proposed decomposition for a three-state labor market (unemployment, employment, and inactivity) using data from the U.S. and Brazil. The results show that, while there is no significant change for the U.S., for Brazil: i) the contributions of some labor market flows vary substantially when the current rate decomposition is used; and ii) the approximation error from using proxies is quite sizeable.

Graph 1 illustrates the first point above through the maximal difference between the projected and the current unemployment rate decompositions among the contributions of the flow rates for different time horizons. While the maximum difference is never greater than 2 percentage points (pp) for the U.S., it is always greater than 7 pp for Brazil and can reach as much as 10 pp.

GRAPH 1

Maximal difference between the projected and the current unemployment rate decompositions among the contributions of the flow rates for different time horizons

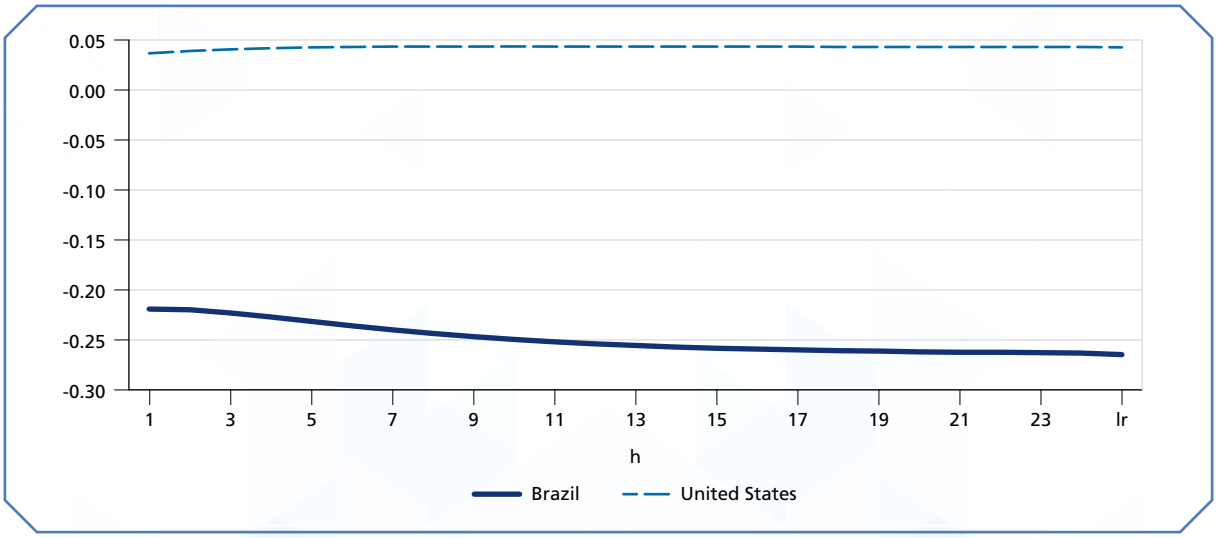


Sources: *Pesquisa Mensal do Emprego* for Brazil; and Current Population Survey for USA.
Obs.: Time horizon measured in quarters. The last point in the horizontal axis (lr) corresponds to the steady-state (large *h*).

Graph 2 illustrates the second point above and additionally shows that the contribution of the approximation error tends to be smaller (in absolute value) in the shorter than in the longer run for both countries. This indicates that among all proxies considered, the steady-state unemployment rate may be the one whose approximation error tends to distort the most the variance decomposition of the actual rate.

GRAPH 2

Estimates of the approximation error for different time horizons



Sources: *Pesquisa Mensal do Emprego* for Brazil; and Current Population Survey for USA.

Obs.: Time horizon measured in quarters. The last point in the horizontal axis (lr) corresponds to the steady-state (large *h*).