Box 2: Inclusion of the labor market in the 4GM model - Monetary Policy Report, January 2026

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Banco de la República, the Central Bank of Colombia, continuously reviews and updates the tools used for macroeconomic forecasting and monetary policy analysis. These tools include macroeconomic models, which enable the collective analysis of inflation and economic growth dynamics in the medium term and serve as a quantitative framework for formulating monetary policy. One such model is the neo-Keynesian semi-structural model developed by González et al. (2020), which is known as 4GM. This methodology, based on the general structure of the International Monetary Fund’s (IMF) Global Projection Model adapted to a small, open economy, is similar to that used by several central banks.

This Box presents an extension of the 4GM model, called 4GM-LM (4GM with labor market), which the Bank’s technical staff began to use in this Report. This version expands the base model by integrating wage and unemployment dynamics. This addition enables a more rigorous analysis of the influence of labor market behavior on inflation, economic growth, and potential output, thereby making it possible to explicitly incorporate their implications for monetary policy decisions. A detailed description of the model is provided in Ramos-Veloza, Naranjo-Saldarriaga, and Pulido (2026).

Fuente: https://www.banrep.gov.co/en/publications-research/monetary-policy-report/box2-january-2026