Effect of Globalization on Inflation Rate in Indonesia

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Abstract. The study examines the influence of globalization and global output equivalence to inflation in Indonesia, through supply and demand goods and services. The study also proves the Philips curve on relationship between the unemployment and inflation in the scheme of the effect of global economic on domestic. By using time series data and regression model of global and domestic data, the estimation results of the study shows that the global output play a role direct and indirectly to the domestic output and inflation.

Keywords: **globalization, global output, inflation**

1 Introduction

To model the behavior of Indonesian inflation, researchers typically use some version of the New Keynesian Phillips curve, a relation that states that the current domestic inflation rate depends on expectations about future inflation and on a measure of resource utilization in the economy.

This paper aims to contribute to the debate about the consequences of globalization by providing empirical evidence on the effect of global output on Indonesian inflation. While Borio and Filardo[1] and Ihrig et al[2]. use backward-looking single-equation regressions in their empirical analysis, this paper tries to assess whether global output affects the Indonesian.

This Phillips curve is similar to the specifications estimated in Borio and Filardo[1] and Ihrig et al[2] which are,however, purely backward-looking: Borio and Filardo[1] use a smooth trend for inflation to proxy for changing inflation expectations and lagged values for domestic and global slack variables, while Ihrig et al[2] use lagged inflation as a proxy for expectations and current slack measures. Here, the formation of expectations will be explicitly modeled. One of the main coefficient of interest in the estimation will be κF. Borio and Filardo's[1] estimate for κ F is positive, large, and significant, while κH is not significantly different from zero[2]; instead, find negative estimates for κF (with a large standard error).

In the empirical analysis, these will not be arbitrarily chosen, but, as the estimation sample will start from 1985, they will be inferred using pre-sample data from 1960:I to 1984:IV. It is assumed that agents start the sample (in 1985:I) with initial beliefs that are also estimated where τ denotes the last quarter of the pre-sample period. Hence, the estimation will not be conditioned on a given chosen learning process, but the empirical analysis will try to extrapolate the best-fitting learning dynamics along with the best-fitting structural and policy parameters from time series data. The initial values of the vector of beliefs φbτ and the initial precision matrix Rτ , in fact, are not fixed, but their values will be inferred from the data by estimating the constant gain parameter g (this is important since Carceles-Poveda and Giannitsarou, 2007, show how different initial beliefs may affect the dynamics of artificially-simulated economies). Therefore, there is only a single free parameter that is added in the model by introducing learning.

2 Methodology

By using time series data and regression model of global and domestic data, the estimation results of the study shows that the global output play a role direct and indirectly to the domestic output and inflation..

3 Discussion

I use quarterly data on Indonesia domestic inflation, Indonesian. output, rate, and 'global' output, as observable variables in the estimation. Inflation is calculated as the log quarterly change in the GDP

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Implicit Price Deflator, output is obtained as log Real GDP.

In which global output is allowed to have an effect on the aggregate demand and supply of the economy and on the formation of expectations, through the PLM. The posterior mean estimate for the sensitivity of inflation to global output κF is equal to -0.015. In reduced-form inflation regressions,

The best-fitting values of the gain coefficient are somewhat dependent on the learning rule specification (ranging from 0.006 when agents need to learn about the constant and the effect of global output as well, to 0.035 when they know the steady state and simply use a VAR in inflation, domestic output, and interest rates).

The evidence on the role of domestic and global economic conditions in the Phillips curve is, in fact, not particularly sensitive to the specific assumptions about economic agents' learning rules. Shows the posterior distributions for the coefficients denoting the sensitivity of inflation to domestic output κH and the sensitivity of inflation to global output κF , across the different estimated models. The model fits the data better than the baseline model with global output (posterior odds ratio = 393.07). The fit of the closed economy model, however, is comparable to the fit of the alternative model in which global output is allowed to affect the economy, but not the formation of expectations. The slight prevalence of the closed economy model is sensitive to assumptions about the priors: if the model is re-estimated assuming a less diffuse prior distribution (with standard deviation equal to 0.25, for example), or one with a positive prior mean (equal to 0.25, for example), the relative fit of the two models would be reversed. The data, therefore, cannot clearly favor one specification over the other.

The impulse responses of the domestic inflation rate to one standard deviation positive shocks to both domestic and global output, obtained for the model in which global output is assumed not to enter the agents' PLM (this case is selected as it is the best- fitting specification among those that allow for a role of global output .The impulse responses are time-varying in the sample as a result of learning dynamics: the figure shows the median impulse response functions over the sample, along with 16% and 84% percentile bands (no clear pattern is apparent from the time variation in the impulse responses, which is modest). Shocks to domestic output have a sluggish effect on inflation. The response of inflation to shocks to global output is substantially smaller: the impact is initially negative and then it turns positive after few quarters. Global output shocks have a positive effect on domestic output with a peak after two-three quarters.

The contribution of global output to the domestic economy is, however, limited. The fore- cast error variance decomposition indicates that shocks to global output can account for only 1% of the fluctuations in domestic inflation at five or ten-year horizons (while the variance share explained by domestic output shocks reaches 20%), and for 9% of the domestic output fluctuations (median values over the sample). The other direction of causality is probably stronger: shocks to Indonesia output can explain roughly 30% of fluctuations in the global output variable.

4 Conclusion

Various research papers, policy speeches, and press articles have suggested that the increased global integration of national economies may have led to radical changes in the behavior of inflation, even in large economies as the indonesia.

This paper has estimated to identify the impact of global output on domestic inflation. The results do not provide supportive evidence for abandoning the conventional closed-economy Phillips curve in favor of one in which global output replaces domestic output as the main variable driving indonesia inflation. When expectations are modeled within a general equilibrium setting and the inertia of inflation is fully captured, there doesn't appear to remain a role left for measures of global output as a significant regressor in the indonesia Phillips curve. There is also no evidence that global output has had an important influence through the formation of agents' expectations. Global output can still affect inflation, though, as it is found to have a positive spillover effect on domestic output. But the overall effect is not large. Thus, the empirical results imply that, so far, globalization is unlikely to have substantially altered the conduct and the effectiveness of domestic monetary policy.

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