INTISARI

Peramalan *Inflow* dan *Outflow* Uang Kartal Indonesia dengan Variasi Kalender Islam Menggunakan X-13 *Arima-Seats*
(Studi Kasus : Nilai *Inflow* dan *Outflow* Uang Kartal di Indonesia dari Januari 2015 sampai dengan Desember 2022)

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Uang kartal sangat berperan penting terhadap transaksi perekonomian masyarakat Indonesia. Dalam mengatur jumlah uang beredar, Bank Indonesia perlu menyusun perencanaan permintaan uang. Kebutuhan uang kartal salah satunya dapat ditinjau dari aliran masuk (*inflow*) dan keluar (*outflow*) uang kartal melalui Bank Indonesia. Oleh karena itu, dilakukan penelitian pemodelan peramalan *inflow* dan *outflow* uang kartal di Indonesia. Data *inflow* maupun *outflow* merupakan data deret waktu. Peramalan data deret waktu pada penelitian ini menggunakan variasi kalender hijriyah. Oleh karena itu, diperlukan metode yang dapat digunakan untuk menganalisis data deret waktu dengan efek kalender. Metode yang digunakan adalah metode peramalan *X*-13 *Arima-Seats* melalui tahap pemodelan regARIMA dengan errornya merupakan proses ARIMA. Data yang digunakan adalah data bulanan *inflow* dan *outflow* uang kartal di Indonesia periode Januari 2015 sampai dengan Desember 2022. Untuk mengukur keakuratan peramalan digunakan *Mean Absolute Percentage Error* (MAPE). Hasil penelitian menunjukan bahwa pada data *inflow* maupun *outflow*, model peramalan X-13 *Arima-Seats* baik digunakan.

Kata Kunci : *Inflow* Uang Kartal, *Outflow* Uang Kartal, X-13 *Arima-Seats*

ABSTRACT

Forecasting of Indonesian Currency Inflow and Outflow with Islamic Calender Variation Using X-13 Arima Seats
(Case Study : Value of Indonesian Currency Inflow and Outflow from January 2015 to December 2022)

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Currency a principal role in the economic transactions of Indonesian society. In regulating the money supply, Bank Indonesia needs to draw up a plan for money demand. The need for currency, one of which can be seen from the inflow and outflow of currencies through Bank Indonesia. Therefore, research on modeling the inflow and outflow of currency forecasting in Indonesia was carried out. Inflow and outflow data are time series data. Forecasting time series data in this research uses variations of the Hijriyah calender. Therefore, we need a method that can be used to analyze time series data with calender effects. The method used is X-13 Arima-Seats forecasting method through the regARIMA modeling stage with the error being the ARIMA process. The data used are monthly inflow and outflow data for currency in Indonesia with observations for the period January 2015 to December 2022. This research was conducted using the X-13 Arima-Seats forecasting model. Mean Absolute Percentage Error (MAPE) is used to measure the excess of the model. The results of this research show that for inflow and outflow data, the X-13 Arima-Seats forecasting model is suitable for use.

Keywords: *Currency Inflow, Currency Outflow, X-13 Arima-Seats*