ABSTRACT

EDDI WAHYUDI. Design of Taxes Early Warning System (TEWS) and Tax Revenue Model in Indonesia: The Application of Business Cycle Analysis and Taxes Revenue Performance Evaluation. (BUNASOR SANIM as chairman, HERMANTO SIREGAR, NUNUNG NURYARTONO as members of advisory committee).

Currently, the mechanism of tax revenue allocation is still being distributed by top down mechanism, in which the distribution pattern is in the form of targets approved by DPR (House of Representatives) even though the initial draft comes from the government. Therefore, the national tax revenue forecast is not effective and needs a more comprehensive model to improve the tax planning.

This research is conducted to identify the environment turbulence which will affect economic fluctuation by using business cycle method. The behavior of this economic fluctuation will surely influence the fluctuation of tax revenue. The objective of this research is to identify this economic fluctuation by designing a model of early warning system which is called the Taxes Early Warning System (TEWS) and tax revenue modeling in Indonesia. In addition, this research will also examine the effects of these environmental shocks to the national tax revenue fluctuation in all tax offices in Indonesia.

The research is conducted using monthly time series data and also applying two indicators: Income Tax and Value Added Tax. The result of this research is divided into four main topics. One of the important outcomes of this research, based on business cycles analysis, is the Taxes Early Warning System (TEWS) model. The best performance of Income Tax composite leading index is performed by Stepwise Regression model which consists of 14 particular components. While the best performance for the composite leading index of Value Added Tax is shown by Best Subset Regression model which consists of 9 particular components.

From the VAR analysis result by Income Tax modeling series, it is known that there are 3 indicators having complete pass-through degrees more than one (complete pass through), which are hotel occupancy rate, money supply and fuel consumption. Meanwhile through the Value Added Tax series, the indicator shows the incomplete pass through degree. From the FEVD analysis result, both short term and long term, the external shock variability cannot explain the fluctuation of tax revenue as a benchmark series.

The panel data analysis is used to examine the effects of economic fluctuation on 31 Kanwil DJP all over Indonesia and the results show that the fluctuation variable of TEWS gives positive effect to the tax income performance at Kanwil Khusus, Kanwil WP Besar 1 and 2, Kanwil Jakarta Selatan and Kanwil Jakarta Pusat. By using tax revenue modeling, it is known that within observing period, the surplus of income tax and value added tax has occurred. The surplus proves that tax revenue projection until now is still being defined by top down policy pattern.

Based on the research results, it can be concluded that there are five important variables which can influence the tax revenue performance, there are fuel consumptions, fuel price, domestic inflation, money supply and exchange rate. On the other hand, none of those variables are in the DGT authorization. In this case, DGT just only can anticipate the effects of the fluctuation of economic variable upon the tax revenue. To support the implementation of TEWS application, it has been designed the alternative strategy as an alternative of DGT strategy which has been declared in Strategic Planning 2009-2012.

Keywords: income tax (PPh), value added tax (PPN), business cycle, shock, early warning system, Taxes Early Warning System (TEWS), tax revenue, reference series, Composite Leading Indicator, pass-through degree.