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## **Business Cycle Model with the Bilateral International Trade: An Application of Hopf Bifurcation Theorem of the Four Dimension**

### **Abstract:**

Lorentz (1987) has developed a very simple IS-LM model which examines the effect of economic linkages on the economic dynamical system of a macro-open economy along with the dynamic IS-LM model.

We will extend the following dynamic macroeconomic model with two-country, international trade by applying Hopf Bifurcation Theorem of the Four Dimension.

We will develop analytically and numerically the Kaldor-Lorentz model with the international trade.

**Keywords:** Business Cycle, International Trade, Hopf Bifurcation Theorem, Dynamic IS-LM Model.