

## Asymmetric information and dynamic disequilibrium model.

Yasuyuki Muradate.

The University of Tokyo.

2013 April.

### Abstract;

This paper discusses a continuous-time macro-disequilibrium model, explored from the point of asymmetric information. This Model has micro-foundation. The model is consisted of 4 equations. The Dynamic IS curve(a), the Taylor rule(b),the Disequilibrium Inflation Supply curve(c), and the Disequilibrium Phillips curve(d). This model is expanded edition of the New Keynesian Model and the Iwai(1981) Model.

$$a) \frac{\dot{y}}{y} = -\frac{\dot{g}^*}{g^*} + \sigma(r - \rho), \text{ where } g^* = E\left(\frac{c}{y}\right),$$

$$b) r = q_y y + q_\pi \pi, \text{ where } \pi = \dot{p},$$

$$c) \ddot{p} = -\kappa g^* \sum_i \left( \frac{p_i y_i}{p y} \frac{a_i}{\hat{E}(a_i; \delta_i)} - 1 \right),$$

$$d) \ddot{w} = -\omega f^* \sum_i \left( \frac{w_i l_i}{w l} \frac{b_i}{\hat{E}(b_i; \delta_i)} - 1 \right).$$

We try to expand the model to small open economy model.

Sticky asymmetric information makes difference of the adjustment speed in the labor market and the product market in the *long run*. In the *long run*, the natural rate of unemployment may not be achieved. In future analysis we must study the instability of the *long run*.

Key Words: disequilibrium, sticky asymmetric information, Iwai model

JEL classification: E00,E1,E12