

Macro Qualifier 2021

7007 Questions

Questions are weighted equally. Answer all questions.

1. Compare and contrast cyclical properties of real wage in the fixed-nominal wage Keynesian, fixed-price Keynesian, real business cycle, and efficiency wage models. Your essay should discuss the real wage dynamics of each model explicitly.
2. The fraction α of firms have up-to-date information and set their prices in each period accordingly. The remainder have limited information. Inflation rates chosen by firms with full and limited information are, respectively:

$$\pi_t^{FI} = \pi_t + \delta x_t$$
$$\pi_t^{LI} = E_{t-1}(\pi_t + \delta x_t)$$

x is the (log) GDP gap and $\delta > 0$. Thus: $\pi_t = \alpha\pi_t^{FI} + (1 - \alpha)\pi_t^{LI}$. Expectations are formed rationally.

- a. Derive the Phillips curve as a function of the GDP gap and expected inflation.
 - b. How is this Phillips curve different from/similar to the NKPC and the standard adaptive expectations Phillips curves?
 - c. What is “inflation inertia”? Explain how the standard Phillips curve, the NKPC, and the model presented above account for inflation inertia.
 - d. Suppose that the central bank reduces the target inflation rate. What would be the output response under each Phillips curve model if the policy change is not announced? How does your answer change if the policy change is announced? What do your answers imply about the central bank credibility?
3. Use the modern Keynesian and Classical models to provide two competing interpretations of the sources and mechanisms of the 2020 recession the US experienced. Distinguish the similarities and differences between the explanations. Assess policy implications. The focus should be on the theoretical foundations of each explanation.

Qualifying exam Econ 7008 2021.

Answer all questions.

1. (40pts) *Macro model:* State variables are accumulation g and employment rate e . (1) The change in the rate of accumulation g is the difference between desired and actual accumulation ($\dot{g} = f - g$, where $f = g^d = f(g, e; \pi)$ with $f_g > 0, f_e < 0, f_\pi > 0$); (2) the employment rate e follows its law of motion. Make further assumptions as needed to state the system and its Jacobian. Show a phase diagram. Assess stability; if necessary make further assumptions to constrain parameters to obtain it. Briefly discuss in full sentences: How does this setup differ from the neo-Kaleckian baseline?
2. (30pts) *Essay:* Compare and contrast the models presented in Goodwin (1967) and in Barbosa-Filho & Taylor (2006). Discuss differences and similarities along three separate lines: (i) mathematical/formal structure, (ii) theoretical assumptions/foundations and (iii) policy implications.
3. (30pts) *Essay:* Using Harrod's three growth rates as a framework, lay out at least one and at most two sharply focused hypotheses for "secular stagnation," and discuss these in light of the necessary equality in steady state between actual, warranted and natural rate of growth.