1 Readings

1. Read Wickens ch 14.1,14.2,14.3

2. Real Facts and the Monetary Myth by Kydland and Prescott 1990

3. Martin Ellison lecture notes chapters 1,2

4. Calibrated models by Cooley 1997 - (Summarize in 300 words)

5. Real Business Cycle Models: Past Present and future by Rebelo 2005 (Summarize in 500 words)

6. Read "Business Cycle Accounting of Trade Barriers in a Small Open Economy", 2018 by Madanizadeh, Rahmati and Karimirad. (Summarize in 500 words)


8. (Optional- Recommended) Practicing Dynare by Sargent 2010


10. (Optional) Time to build and Aggregate fluctuations by Kydland Prescott 1982

11. (Optional) Gali (Monetary Policy, Inflation, and the Business Cycle, Chapters 1,2)
2 RBC model with Oil

Setup an RBC model with inelastic labor (no labor supply decision: \( l = 1 \)) where household per period utility function is \( u(c) = \frac{c^{1-\eta}}{1-\eta} \) and the production function is \( y = f(k,l) = Ak^{\alpha}l^{1-\alpha} \) where productivity is constant. Now consider that HH receives some income from the oil revenue \( O_t \) as lump-sum transfer which does not come from the economy’s aggregate production function. In other words, total output is \( Y_t = y_t + O_t \). Suppose Oil receives shocks such that \( \log O_t = \rho \log O_{t-1} + \frac{1}{1-\rho} \log \tilde{O} + \varepsilon_t \).

1. Setup the problem.

2. Write down the FOCs and find the Euler equation.

3. Solve for the steady state.

4. Log linearize the model.

5. Use Dynare to simulate your model and see how does the economy responds to oil shocks.

6. (optional with credit) Add labor supply decision to the HHs and redo the problem. What do you find?