Macroeconomic Sequence 2016-2017

Block I: Nicola Pavoni

Bocconi University: Fall, 2016

1. **Quick Refresh of the Solow Model**

   - The Neoclassical Production Function, The Golden Rule, Convergence
   - Reference: Class Notes.
   - Additional References: Romer (2001), Ch. 2.

2. **Introduction to Recursive Methods**

   - Optimal Growth Example, Euler Equations vs Dynamic Programming, the Guess and Verify Procedure
   - Basic Reference: Class Notes.
   - Advanced References: Luenberger (1969).

3. **Math Review and Some Useful Advanced Concepts**

   - Metric Spaces and the Contraction Mapping Theorem
   - Basic Reference: Class Notes.
   - Additional References: SLP, Ch. 3.
   - Advanced References: Rudin (1991).

4. **The Bellman Principle and Deterministic Dynamic Programming**

   - Definition and Comparison with other Methods. Continuity, Concavity and Differentiability under Bounded Returns
   - Basic Reference: Class Notes.
   - Additional References: AC, Ch. 2 and SLP, Ch. 4.
   - Advanced References: Cugno and Montrucchio (1998).

5. **Introduction to Numerical Methods**

- Value and Policy Function Iterations, Projection Methods
- Basic Reference: Class Notes.
- Additional References: AC, Ch. 3 and SLP, Ch 4.
- Advanced References: Judd (1998).

6. **Review on Probability Theory, and Stochastic D.P.**

- Markov Chains and Stationary Distributions, Dynamic Programming with Discrete and Continuous Shocks
- Basic Reference: Class Notes.
- Additional References: LS, Ch. 2 and SLP, Chs. 7-9.
- Advanced References: Bertsekas (1976).

7. **Investment and Dynamics of Employment Adjustment**

- q-Theory of Investment with Adjustment Costs, Credit Constraint and Irreversibilities
- Basic Reference: Class Notes
- Additional Reference: BB, Chs. 2 & 3; AC, Chs. 8 & 9.
- Advanced Reference: Abel-Eberly (1994), Bertola-Caballero (1990), Gilchrist-Himmelberg (1995), Hayashi (1982), Dixit-Pindyck (1994).

8. **Consumption Theory, and Practice**

- Non Durable Consumption under Rational Expectations, Precautionary Saving; Risk Sharing, Introduction to New Consumption Theory
- Basic Reference: Class Notes.
- Additional References: LS, Chs. 16 & 17; BB, Ch. 1; AC, Chs. 6 & 7;
- Advanced References: Deaton (1992); Attanasio and Weber (1993), Hall (1978), Kocherlakota (1996), Ligon (1998), Attanasion and Pavoni (2011).

References

[1] Abel, A. and J. Eberly, "A Unified Model of Investment Under Uncertainty," *American Economic Review*, 94 (1994), 1369-84.

[2] [**AC**] Adda J., and Cooper (2003) *Dynamic Economics: Quantitative Methods and Applications,* MIT Press.

[3] Attanasio, Orazio P., and Guglielmo Weber (1993), "Consumption Growth, the Interest Rate and Aggregation," *The Review of Economic Studies,* 60, 631-649.

[4] Attanasio, Orazio P., and Guglielmo Weber (2010), "Consumption and Saving: Models of Intertemporal Allocation and Their Implications for Public Policy." *Journal of Economic Literature*, 48(3): 693-751.

[5] Attanasio, Orazio P., and Nicola Pavoni (2011), "Risk Sharing in Private Information Models, with Asset Accumulation: Explaining the Excess Smoothness of Consumption," *Econometrica.*

[6] [**BB**] Bagliano, F.C., and G. Bertola (2004) *Models for Dynamic Macroeconomics,* Oxford University Press.

[7] Bertola, G. and R. Caballero, "Kinked Adjustment Costs and Aggregate Dynamics," NBER Macroeconomics Annual, (1990), 237-87.

[8] Bertsekas, D. P. (1976) *Dynamic Programming and Stochastic Control*, Academic Press, NY.

[9] Cugno, F., L. Montrucchio (1998) *Scelte Intertemporali*, Carocci.

[10] Deaton, A. (1992) *Understanding Consumption*, Oxford University Press.

[11] Dixit, Avinash K. and Robert S. Pindyck (2004) *Investment under Uncertainty*, Princeton University Press.

[12] Hall, R. (1978), "Stochastic implications of the Life Cycle-permanent income hypothesis: Theory and Evidence," *Journal of Political Economy*, 86: 971-987.

[13] Gilchrist, S. and C. Himmelberg, "Evidence on the role of Cash Flow for Investment," *Journal of Monetary Economics,* 36 (1995), 541-72.

[14] Hayashi, F. (1982), "Tobin's Marginal Q and Average Q: A Neoclassical Interpretation," *Econometrica*, 50: 215-224.

[15] Judd, K.L. (1998), *Numerical Methods in Economics*, Cambridge, MA, MIT Press.

[16] Kocherlakota, N.R. (1996), "Implications of Efficient Risk Sharing without Commitment," *Review of Economic Studies*, 63: 595-609.

[17] Ligon, E. (1998), "Risk Sharing and Information in Village Economies," *Review of Economic Studies*, 65: 847-864.

[18] Luenberger, D. G. (1969) *Optimization by Vector Space Methods*, John Wiley, USA.

[19] [**LS**] Ljungqvist, L., and T. J. Sargent, *Recursive Macroeconomic Theory*, Second Edition, MIT Press.

[20] Romer, D., (2001) *Advanced Macroeconomic Theory*, McGraw-Hill.

[21] [**SLP**] Stokey, N., R. Lucas and E. Prescott (1991) *Recursive Methods for Economic Dynamics*, Harvard University Press.