

Econ 480-2

I. Asymptotic Distribution Theory

- A. Summary of relevant probability theory (Rao Ch. 2)
- B. Modes of convergence (Amemiya Ch. 3, Rao Ch. 2, Serfling Ch. 1)
- C. Laws of large numbers (Amemiya Ch. 3, Rao Ch. 2, White Ch. 3)
- D. Central limit theorems (Amemiya Ch. 3, Rao Ch. 2, Billingsley Sec. 27, White Ch. 5)

II. Asymptotic Properties of Extremum Estimators (Amemiya, Ch. 4; Newey and McFadden)

- A. Consistency (Amemiya, Sec. 4.1.1; Newey and McFadden, Sec. 2)
- B. Asymptotic normality (Amemiya, Sec. 4.1.2; Newey and McFadden, Sec. 3)
- C. Linear and nonlinear least squares (Amemiya, Sec. 4.3; Newey and McFadden, Sec. 2.2.2)

D. The maximum likelihood estimator (Amemiya, Sec. 4.2.1-4.2.3; Newey and McFadden, Sec. 2.2.1, 2.4, 3.2-3.3, 4.2)

E. Asymptotic efficiency (Amemiya, Sec. 4.2.4; Newey and McFadden, Sec. 5)

F. Generalized-method-of-moments estimators (Amemiya, Sec. 8.1.1, 8.2.2; Newey and McFadden, Sec. 1, 2.2.3, 2.5, 3.3, 4.3)

G. Least absolute deviations (Newey and McFadden, Sec. 7)

H. One-step estimators (Amemiya, Sec. 4.4.2; Newey and McFadden, Sec. 3.4)

I. Hypothesis tests (Amemiya, Sec. 4.5.1; Newey and McFadden, Sec. 9)