

Study Guide for Midterm: Econ 705

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1. You should be able to do everything on the homework. That is: calculate exponential growth rates from data, find the growth rate of $x = \left(\frac{z}{y}\right)^\gamma$ if you know the growth rates of z and y , etc. (Chapter 4 of the Growth Book; Appendix A of the text book.)
2. You should be able to construct PPP exchange rates from prices of common goods like Big Macs – and then use them to compare living standards across countries and across time. This material is in Chapter 2, Sections 2.1 – 2.3. (The more complicated material in Sections 2.4 – 2.6 will not be on the exam; we will use it later in the course.)
3. You should know the Neoclassical (Solow) model (Chapter 2 of the text book and Chapter 5 of The Growth Book). I HAVE RE-WRITTEN AND RE-POSTED CHAPTER 5 OF THE GROWTH BOOK. The notation now conforms to that of the text book. You do not have to know the case of $g > 0$. That is, you may assume the level of technology A is *not* growing over time – but it may differ across countries, or change in a one-time manner due to policy change or scientific

breakthrough.

- (a) You should know what happens to k^* , y^* , and c^* when there is a *permanent* change to any one of the following exogenous variables: s , n , A , or L_0 . (By L_0 , I mean a one-time change in population from, say, immigration, and not a change in the rate of population growth, n .)
- (b) You should know what happens to the growth rate of k and y and c – in the short run and the long run – following the same shocks to s , n , A , or L_0 .
- (c) You should know how to derive the expressions for k^* and y^* from the fundamental growth equation $\dot{k} = sy - (\delta + n)k$.