

Final Take Home Exam Fall 2016 Clemson University

This exam can be done in groups. The exam is due in class by 9:30 am, December 1. The group turns in a single answer set, with all the names of the group members. The exam is open book, open notes and open classmates. You may converse across groups as well as within groups. Every 15 minutes the exam is late, I will deduct 20 points. After 2:30 pm the grade will be 0. The questions point values are given below. It would be good to turn in your do file with the exam answers to 1.

1. (200) Use the state data. Answer the following questions, in some instances it will be useful to present graphs and tables in your answers.
 - a. (25) For each year, compute the super-regional (North, South, West) output per worker, ypw, physical capital per worker, kpw, human capital per worker, hcpw, and total factor productivity, where the weights are the labor force in that year. Assume that capital's share is .33, and human capital's share is .67. Recall that $tfp = ypw / (kpw^{.33} * hcpw^{.67})$. Is there convergence in output per worker? Is there convergence in physical capital per worker and human capital per worker and tfp?
 - b. (25) Repeat the exercise for farming, manufacturing and services. In computing the regional averages, weight by labor force in each sector (thus you need to use the size of the labor force as in a. and the share of the labor force that works in each sector). For farming also compute the average land per worker, landpw. For farming assume that land's share is .19, capital's share is .21 and labor's share is .60. Is there convergence in output per worker by sector, as well as across sectors?
 - c. (25) Compute the annualized growth rate of output per worker, ypw, for each state. Do the same for physical capital per worker, kpw, schooling per worker, edysz8, human capital per worker, hcpw, and total factor productivity, tfp. In a table present the average growth rates for each census region, where the weights for each state are the population of the states in 2000.
 - d. (25) Repeat the exercise for farming, manufacturing and services for each state. For farming also compute the growth rate of land per worker. In a table present the average growth rates for each census region, where the weights will be the labor force in the sector in 2000.
 - e. (25) Compute average white and black fertility (childrenw and childrenb) by census region, using white population and black population weights. Has there been convergence across regions and across races?
 - f. (25) Compute average white and black schooling for children (schoolwdata and schoolbdata) by census region, using white population and black population weights. Has there been convergence across regions and across races?
 - g. (25) What role does mortality play? Focus on p35bfinalhat and p35wfinalhat, the probability of dying before age 35 for blacks and whites. Has there been convergence?
 - h. (25) Finally change the human capital measure used in a and c to one computed from hwstates and hbstates. That is compute a new state human capital, $hc = (hwstates * whitepop + hbstates * blackpop) / (whitepop + blackpop)$, Redo a and b. above and see if any of your answers to a. and c. above change.

2. (200) For this answer use the book *The Victory of Reason: How Christianity Led to Freedom, Capitalism, and Western Success* by Rodney Stark.

- a. (40) CH 1: Blessings of Rational Theology.
 - I. Define Theology
 - II. Compare and contrast how Christian's viewed progress compared with other religions (Judaism, Islam) and other cultures (China, Greece). How does this relate to the development of the Scientific Method?
 - III. Compare and contrast the Christian view of individuality compared with Islam and China. How did this manifest itself in the world?
- b. (30) CH 2: Medieval Progress: Technical, Cultural, and Religious
 - I. List innovations in production that occurred in the Christian West
 - II. List the innovations in war that occurred in the Christian West
 - III. List the innovations in land transportation in the Christian West
 - IV. List the innovations in High Culture in the Christian West
 - V. List the time line on the development of Capitalism
 - VI. List the change in view about interest, profits and prices.
- c. (30) CH 3: Tyranny and the "Rebirth" of Freedom
 - I. List the examples of command economies given by Stark
 - II. Describe the Christian theological foundations of moral equality
 - III. Describe the Christian conception of private property
 - IV. Describe the Christian view of States and Kings
- d. (30) CH 4: Perfecting Italian Capitalism
 - I. Describe the personnel policies in Italian firms
 - II. Describe the management and financial practice of Italian firms
- e. (30) CH 5: Capitalism Moves North
 - I. Describe the development of Woolen Cities in Flanders
 - II. Describe the rise of Amsterdam
 - III. Describe the rise of English Capitalism
- f. (40) CH 7: Feudalism and Capitalism in the New World
 - I. Describe monopoly religion in Latin America
 - II. Describe competitive religion in the United States
 - III. Describe United States Capitalism from the colonial period to the onset of WWII
 - IV. Describe human capital investment in the US