Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Delete this before using. Handout provided electronically. Very long. Most got to 11, rest as hw.

In fact, the main purpose of my work was not to provide a dataset for econometric work, but to encourage a younger generation to scrutinise the basic source material, try to improve its quality where it is weak, and to illuminate the underlying causes of growth and backwardness. This is why I took a lot of trouble to describe the sources and methods transparently.

Angus Maddison

Barreto

Macro Topics

Day 5: Economic Growth Data

Your HW was to acquire basic economic growth literacy. You were to complete tasks 5 and 6.

Open your completed workbook MaddisonData.xls. Open this Word doc, EconomicGrowthData.docx, from the public/Day5 folder and save it in your folder.

1. Economic growth literacy begins with the amazing fact that economic growth is brand new.

Create a graph in the *Compare* sheet that illustrates this claim. You can have more than one series on the chart. Use the  button to display lines without markers. Copy your graph and paste it below as a picture (not as an embedded Excel chart). Size it so it isn’t huge.

Wait. Do not go on to the next task. Just be patient and wait until I tell you to proceed.

1. Which region took off first and when?

Plot Real GDP per person for Total Western Offshoots, Total Latin America, Total Asia, and Total Africa from 1 AD to now. Copy your graph and paste it below as a picture. Size it. Under the chart, answer the question.

1. Remove Total Western Offshoots from your graph and comment below on the differential timing of the take-off of the remaining three continents.

Wait.

1. In addition to the novelty of economic growth, a clear separation must be made between short run, cyclical versus long run, path analyses.

Other than the US, choose any rich country (it is obvious to most people who is rich, but see Region C in the *Countries* sheet if you are unsure) and plot Real GDP per person from 1950 to now. Click . Copy your graph and paste it below as a picture. Size it. Under the chart, explain the difference between short run, cyclical versus long run, path analyses.

Wait.

1. How did the US economy perform during the 20th century?

Plot Real GDP per person for the United States from 1900 (OK, 1901 if you are some kind of freak about correctly defining a century or decade and, yes, I agree that there is no year zero) to 2000. Show the CAGR and use a log scale. Answer the question below.

1. Add the United Kingdom, to the chart. Add fitted paths to both countries. How would you rebut the argument that the US and UK did about the same in the 20th century since they have similar growth rates, 2% versus 1.6%?

Wait.

1. What is the magic number for very good economic growth for a rich country?

Wait.

1. In fact, the US did pretty well compared to other countries. Let’s count how many times the US had the highest Real GDP per person in this data set. The work below assumes you have the maxofcountries(,TRUE) function in row 196 (this is what Task 6 asked you to do).

In cell B200 in the Compare sheet, we will be entering this formula, but we will be doing it together so do not race ahead: =INDEX($A$1:$A$194,MATCH(B196,BR1:B194,0),0).

Does anyone have any idea how we are going to count the number of times the US was the leader?

Wait.

1. What about China? When did they take off?

Wait.

1. There is tremendous variability in economic performance.

Make a chart of Real GDP per person for Botswana and its contiguous neighbors from 1950 to now.

Here is a map of Africa:

<http://www.mapsofworld.com/africa/>

Copy your graph and paste it below as a picture. Size it. Under the chart, answer this question: What does this chart demonstrate?

Wait.

1. Malthus said, as a basic rule,

That population, when unchecked, goes on doubling itself every twenty-five years.

<http://www.econlib.org/library/Malthus/malPop1.html#II.7>

Is this fast or slow population growth?

1. Pick a country that you think has had fast population growth. How fast is it? Report the country, time period, and CAGR below.
2. Does your country support Malthus’ claimed growth rate for “unchecked” population growth?

Wait.

From the *ToDo* sheet:

*Conclusion*

What the data show is that modern economic growth exploded on the world stage just a few hundred years ago with the advent of the market system and the simultaneous revolutions in science and industry.

As a result, hundreds of millions of people live healthier, richer lives. It is, of course, also true that billions remain poor and we need to figure out exactly what it is about markets that enable growth and development.

Solving the puzzle of economic growth is the biggest open problem in economics. (Red text for emphasis.)

The puzzle is both incredibly challenging and critically important that we figure it out.

1. If you do not believe this, consider Haiti and the Dominican Republic. Go to the *Compare* sheet and display real GDP per person for these two countries from 1950 to 2008.

Copy your graph and paste it below as a picture. Size it. Under the chart, answer this question, “Are you absolutely blown away by this chart?

1. What lesson does the comparison of Haiti and the DR illustrate?

HW: You must prepare a 1 – 2 minute presentation (minimum 60 seconds and maximum 120 seconds) for next class titled, *Understanding Economic Growth with Maddison Data*. You can say and emphasize anything you want, but you must prepare a Word doc with a series of charts (and a little text if you wish) that you will show and explain to the class. Your primary goal is to explain the fundamental lessons of economic growth. I do not want a repeat of the lessons here. Think about the screencasts and how to organize your ideas. Remember that you have only 1 – 2 minutes.