Basic Research Question:

Contrary to common sense and basic economic reasoning, countries that are rich in natural resources seem to experience poor economic performance. This phenomenon has been dubbed the ‘curse of natural resources.’ The most widely cited paper on this phenomenon is:


The literature on this issue is growing rapidly, however, and there probably several dozen works now available, including both published and unpublished items. I have compiled a data set that provides relevant variables for a large sample of countries. This data set can be used to examine this phenomenon.

Team 1 Research Questions: Using the data available in the data set provided, plus any other data you find relevant to examine, test the hypothesis that countries that were specialized in natural resource production at a time in the past have experienced poor economic growth. In a carefully edited report of 4-5 typed (single space) pages, present your results, methods of analysis, and economic reasoning. Include any tables of results you wish to report. Prepare a complete bibliography of information sources.

An important determining factor in economic growth rates is the quality of a country’s political institutions. The political institutions that appear to be important, from work already published, include political stability, prevalence of corruption, and how well the ‘rule of law’ is established. I have included several such indicators in the data set. You should try to control for such factors as best you can when analyzing the data. You might do this by seeing if the resource curse holds only for countries with a specific type of institution, or see if the resource curse operates either partially or entirely through an effect on political institutions.

Use the best statistical methodology you can devise, as your methodological approach will be an important factor in determining your grade.

Team 2 Research Questions. Using the data available in the data set provided, plus any other data you find relevant to examine, test the hypothesis that the resource curse also applies to the ‘human development’ performance of countries. In other words, are countries that were specialized in natural resource production at a time in the past presently experiencing poor performance regarding: mortality rates, malnutrition, illiteracy, etc. In a carefully edited report of 4-5 typed (single space)
pages, present your results, methods of analysis, and economic reasoning. Include any tables of results you wish to report.

Two important determining factors in human development outcomes are a country’s income (e.g., GNP or GDP per capita) and the quality of a country’s political institutions. The political institutions that may be relevant here include political stability, prevalence of corruption, and how well the ‘rule of law’ is established. I have included several such indicators in the data set. You should try to control for this factor as best you can when analyzing the data. You might do this by seeing what patterns are present for countries with a specific type of institution.

Use the best statistical methodology you can devise, as your methodological approach will be an important factor in determining your grade.

Sources of data:

I have compiled a set of variables that relate to the ‘resource curse’ and posted them in an Excel spreadsheet on the website for the course. Overall, the data set contains about 70-80 variables that relate in some way or another to the resource curse. Each observation in this data set refers to one country. In total, 154 countries are represented, although all variables are not available for all countries. You may wish to augment this data set by collecting data on your own, from sources you feel are relevant to your research question. If you choose to do this, I would suggest that you look first at the sources from which I collected the data you already have, as these agencies are among the most widely used sources for data on this and similar questions.

Sources of data in data set and other possibly relevant data:

1. WDI: World Development Indicators, World Bank. This source has data on economic, health, and other indicators of countries. For more information on what this data set contains, see: [http://publications.worldbank.org/WDI/](http://publications.worldbank.org/WDI/).

2. WRI: World Resources Institute. Has data on environment and natural resources, and some economic data. Available at: [http://earthtrends.wri.org/](http://earthtrends.wri.org/)


5. For a general compilation of data relevant to a wide array of economic research questions, with summary explanations and web links, see: [http://www.library.ucsb.edu/guides/econg.html](http://www.library.ucsb.edu/guides/econg.html).
DESCRIPTION OF VARIABLES IN ECON 122 RESOURCE CURSE PROJECT DATA SET.

//THE FOLLOWING ARE COUNTRY CODES AND NAMES FROM VARIOUS DATA SETS, USED FOR MERGING DATA/
1. UNDPcode float %9.0g Num code from FAO undernour data
2. WDIcode str3 %9s
3. WDInamex str44 %35s
4. WRIcode int %8.0g WRI country code, 'sym'

//FAO DATA ON UNDERNOURISHED POPULATIONS//
16. unn6971 float %9.0g # u-nou,1969-71, mill., FAO
17. unn7981 float %9.0g # u-nou,1979-81, mill., FAO
18. unn9092 float %9.0g # u-nou,1990-92, mill., FAO
19. unn9800 float %9.0g # u-nou,1998-00, mill., FAO
20. unp6971 float %9.0g % u-nou,1969-71, FAO
21. unp7981 float %9.0g % u-nou,1979-81, FAO
22. unp9092 float %9.0g % u-nou,1990-92, FAO
23. unp9800 float %9.0g % u-nou,1998-00, FAO

//VARIABLES FROM SACHS-WARNER DATA SET//
24. assassp float %9.0g Barro/Lee: Assassin. per million pop., avg. 1970-85
25. bq byte %8.0g ICRG/IRIS: bureaucratic quality (0-6), 1982?
26. corr byte %8.0g ICRG/IRIS: corruption index (0-6), 1982?
34. gea7090 float %9.0g 1970-90 avg. ann. growth of S&H RGDPCH/WDI pop 15-64
36. gnr7090 float %9.0g WDI: Per cap growth 1970-90 in value added in non-NR sectors, 1970-90
39. grc float %9.0g ICRG/IRIS: govt repudiation of contracts (0-6), 1982?
41. inv7089 float %9.0g S&H: avg. of gross investment (pub. and priv.)/GDP, 1970-89
44. land float %9.0g FAO Prod. Yrbk: log of land area/populn, 1971
46. lgdpea70 float %9.0g log or real gdp per worker in 1970 (S&H RGDPCH 1970/WDI pop 15-64)
56. pri70 float %9.0g Barro/Lee: Primary school enrollment rate,1970
57. pxi70 float %9.0g WB: Primary exports/total mdse. exports, 1970
58. re float %9.0g ICRG/IRIS: risk of expropriation (0-10), 1982?
59. revcoup float %9.0g Barro/Lee: Avg. ann. revol. and coups, 1970-85
60. rl byte %8.0g ICRG/IRIS: rule of law index (0-6), 1982
61. sec70 float %9.0g Barro/Lee: Secondary school enrollment rate, 1970
65. snr float %9.0g Share of mineral prod. in GNP (M71*1000/GNP), 1971
66. sopen  float  %9.0g  S&W fraction of years country rated open to trade, 1970-90
69. sxp   float  %9.0g  WDI and other sources: 1970 share of primary exports in GDP

//DATA ON UNDER-DEVELOPMENT, FROM UNDP HUMAN DEVELOPMENT INDICATORS//
77. HPI_1  float  %9.0g  Human poverty index-1, HDR
78. MortProb float  %9.0g  Prob not survive to age 40, 00-05, HDR
79. IllitRat float  %9.0g  Adult illit. rate, 01, HDR
80. NoWater byte  %8.0g  % of pop. w/o impr water, 00, HDR
81. U_Weight byte  %8.0g  % of kids u_weight, 95-00, HDR
82. LifeExp  float  %9.0g  Life exp. birth, 01, HDR
83. LitRate  float  %9.0g  Adult literacy rate, 01, HDR
84. P_SEnrol byte  %8.0g  Prim, Sec & Tert enrol %, 00-01, HDR
85. GDPpc  str6  %9s  Per capita GDP, 01, HDR
86. LifeInd  float  %9.0g  Life expectancy index, HDR
87. EdInd   float  %9.0g  Educ. index, HDR
88. GDPInd  float  %9.0g  GDP index, HDR
89. HDI75   float  %9.0g  Index of Human Development conditions, 1987 (HDI, 75, HDR)
90. HDI80   float  %9.0g  HDI, 80, HDR
91. HDI85   float  %9.0g  HDI, 85, HDR
92. HDI90   float  %9.0g  HDI, 90, HDR
93. HDI95   float  %9.0g  HDI, 95, HDR
94. HDI01   float  %9.0g  HDI, 01, HDR

//DATA ON GOVERNANCE FROM WB: KKZ ‘GOVERNANCE MATTERS’ PROJECT//
95. VA98  float  %9.0g  KKZ measure of Voice and Accountability in gov’t, 1998
97. GE98  float  %9.0g  KKZ measure of Govt Effectiveness, 1998
99. RL98  float  %9.0g  KKZ measure of Rule of Law, 1998

//DATA FROM WB WORLD DEVELOPMENT INDICATORS//
101. GDPTot double  %10.0g  GDP, 1970, current US$
102. ExpPctAg float  %9.0g  Agricultural raw ma'ls exports, 1970, % of merchandise exports
103. ExpPctFo float  %9.0g  Food exports, 70, % of merchandise exports
104. ExpPctAF float  %9.0g  Ag & Food exports as % mdse. exports: =ExpPctAg+ ExpPctFo
105. ExpPctFu float  %9.0g  Fuel exports, 1970, % of merchandise exports
106. ExpPctOM float  %9.0g  Ores and metals exports, 1970, % of mdse exports
107. ExpPctFM float  %9.0g  ExpPctFu+ ExpPctOM
108. ExpPctGS float  %9.0g  Exports of goods and services, 70, % of GDP
109. ExAg_GDP float  %9.0g  Ag. exports as %GDP: =100*(ExpPctAg/100)*(ExpGSpt/10)

110. ExFo_GDP  float  %9.0g  
Food exports as %GDP: = 100*(ExpPctFo/100)*(ExpPctGS/100)

111. ExAF_GDP  float  %9.0g  
Ag. and Food exports as %GDP: = ExAg_GDP+ ExFo_GDP

112. ExFu_GDP  float  %9.0g  
Fuel exports as %GDP: = 100*(ExpPctFu/100)*(ExpGS pct/100)

113. ExOM_GDP  float  %9.0g  
Ores and Minerals exports as %GDP: =100*(ExpPctOM/100)*(ExpGS pct/100)

114. ExFM_GDP  float  %9.0g  
Exp. of Fuels and O_M as %GDP: =ExFu_GDP+ ExOM_GDP

115. ExpGStot  double %10.0g  
Exports of goods and services, 70, current US$

116. VAAG  float  %9.0g  
Ag. value added, 1970, current US$