Data Appendix

"Using the General Equilibrium Growth Model to Study Great Depressions: A Reply to Temin"

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Original Data: Description

O.1 GNP, United States (millions of 1929 US dollars)
O.2 Civilian Population, 16 and over, United States (thousands)
O.3 Manhours, Total, United States (millions)
O.4 Real Capital Stocks, National Economy, United States (millions of 1929 US dollars)
O.5 Real GDP, United States (millions of 1990 Geary-Khamis dollars)
O.6 Real GDP, United States (billions of 2000 chained US dollars)
O.7 Population, 15-64, United States (thousands)
O.8 Population, total, United States
O.9 Population, 15-64, United States (percent of total)
O.10 Real GDP, Mexico (thousands of 1980 pesos)
O.11 Real GDP, Mexico (billions of 2000 pesos)
O.12 Population, total, Mexico (thousands)
O.13 Population, total, Mexico
O.14 Population, 15-64, Mexico (percent of total)
O.15 Real GDP, France, (billions of 1938 French Francs)
O.16 Population, 15-64, France
O.17 Population, 15-64, France
O.18 Population, total, France
O.19 Population, 15-64, France (percent of total)
O.20 GDP Volume Index, Argentina (2000=100)
O.21 Population, total, Argentina
O.22 Population, 15-64, Argentina (percent of total)
O.23 GDP Volume Index, Brazil (2000=100)
O.24 Population, total, Brazil
O.25 Population, 15-64, Brazil (percent of total)
O.26 GDP Volume Index, Chile (2000=100)
O.27 Population, total, Chile
O.28 Population, 15-64, Chile (percent of total)

Original Data: Source

O.1 Kendrick, Table A-III
O.2 Historical Statistics, Series A39
O.3 Kendrick, Table A-X
O.4 Kendrick, Table A-XV
O.5 Maddison
O.6 BEA

O.7 Statistical Abstract
O.8 WDI
O.9 WDI
O.10 INEGI
O.11 IFS
O.12 Maddison
O.13 WDI
O.14 WDI
O.15 Villa, PIBZQ, PROD.XLS
O.16 ASF 1966, v. 71
O.17 ASF 1961, v. 66
O.18 WDI
O.19 WDI
O.20 IFS
O.21 WDI
O.22 WDI
O.23 IFS
O.24 WDI
O.25 WDI
O.26 IFS
O.27 WDI
O.28 WDI

Notes:
-Kendrick denotes Kendrick, John W. 1961. *Productivity Trends in the United States*. Princeton, N.J.: Princeton University Press (for NBER)
-Historical Statistics denotes *Historical Statistics of the United States, Colonial Times to 1970*. U.S. Department of Commerce, Bureau of the Census
-Maddison denotes Angus Maddison, *Historical Statistics for the World Economy, 1-2003 AD*
-BEA denotes Bureau of Economic Analysis
-Statistical Abstract denotes *Statistical Abstract of the United States*, U.S. Department of Commerce, Bureau of the Census
-WDI denotes the World Bank's *World Development Indicators*
-INEGI denotes Mexico's Instituto Nacional de Estadística y Geografía
- IFS denotes the International Monetary Fund's *International Financial Statistics*
-Villa denotes the database of Pierre Villa located at http://www.cepii.fr/francgraph/bdd/villa/mode.htm
-ASF denotes France's Annuaire Statistique de la France

Constructed Series: Description

C.1 TFP, United States
C.2 Real GDP, United States (billions of 2000 US dollars)
C.3 Population, 15-64, United States (thousands)
C.4 Real GDP, Mexico (billions of 2000 pesos)

C.5 Population, 15-64, Mexico (thousands)
C.6 Population, 15-64, France
C.7 Population, 15-64, Argentina (thousands)
C.8 Population, 15-64, Brazil (thousands)
C.9 Population, 15-64, Chile (thousands)

Construction of Series

C.1 TFP, A_t, is calculated as follows:

$$A_t = \frac{Y_t}{K_t^{\theta} H_t^{1-\theta}}$$

where Y_t is O.1, K_t is O.4, H_t is O.3/52*10, and $\theta = .33$

C.2 O.6 spliced with O.5

C.3 O.9 applied to O.8 and then spliced with O.7

C.4 O.11 spliced with O.10

C.5 O.14 applied to O.13 and then spliced with O.12

C.6 For 1960-1970, the series is O.19 applied to O.18. For 1946-59, the series is O.17. For 1929-1945, the series is estimated using O.16. We estimate since exact values are available only for the census years 1926, 1931, 1936, and 1946. Population is broken into 5-year cohorts. The coincidence of 5-year cohorts and 5-year census intervals means that the 0-4 cohort in 1926 is the same cohort reported as age 5-9 in 1931. We calculate age bin populations for intervening years in two steps. First, we assume that cohorts shrink at a constant (usually negative) growth rate. Second, we assume that 1/5th of each cohort is in each year. To calculate, for example, the population between 15-19 in 1928, we estimate the size of the cohort that was 10-14 in 1926 and the size of the cohort that was 15-19 in 1926. Then, we add the 2/5 of the younger cohort who have aged into this bin to the 3/5 of the older cohort who have not yet aged out of the bin. To give an explicit formula, suppose that the size of the 10-14 cohort in 1926 is x_1 and that this cohort is size x_2 in 1931 (when they will all be 15-19). Let the 15-19 cohort in 1926 be y_1 and the size of that cohort in 1931 be y_2. Then, the formula for the population in age bin 15-19 in 1928 is (2/5)* x_1*(x_2 / x_1)^(2/5) + (3/5)* y_1*(y_2 / y_1)^(2/5).

C.7 O.22 applied to O.21

C.8 O.25 applied to O.24

C.9 O.28 applied to O.27

Notes:
If a series $\{x_t\}$ is spliced with a series $\{y_t\}$ at date T, then $\{y_t\}$ is adjusted as follows:

$$\left(x_T / y_T\right) y_t .$$

Figures

Figure 1: Y_t is O.1, N_t is O.2, K_t is O.4, H_t is O.3/52*10, A_t is C.1, and $\theta = .33$

Figure 2: Y_t is O.1 and N_t is O.2

Figure 3: H_t is O.3/52*10 and N_t is O.2

Figure 4: The straight line is a 2% trend. The United States series is the logarithm base 2 of C.2 divided by C.3. The Mexico series is the logarithm base 2 of C.4 divided by C.5.

Figure 5: The United States series is O.6 divided by O.7, and the Mexico series is O.11 divided by C.5.

Figure 6: The United States series is O.6 divided by O.7 detrended by 2% per year, and the Mexico series is O.11 divided by C.5 detrended by 2% per year.

Figure 7: The Mexico series is O.11 divided by C.5 detrended by 2% per year. The France series is O.15 divided by C.6 detrended by 2% per year.

Figure 8: The Argentina series is O.20 divided by C.7 detrended by 2% per year. The Brazil series is O.23 divided by C.8 detrended by 2% per year. The Chile series is O.26 divided by C.9 detrended by 2% per year.