

## Data Appendix

“Recent Great Depressions: Aggregate Growth in New Zealand and Switzerland”

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### Original Data: Description

- O.1 GDP, Switzerland (1975 prices, Old System of Accounts)
- O.2 GDP, Switzerland (1995 prices, SNA68)
- O.3 GDP, Switzerland (current prices, Old System of Accounts)
- O.4 GDP, Switzerland (current prices, SNA68)
- O.5 Gross Fixed Capital Formation, Switzerland (current prices, Old System of Accounts)
- O.6 Changes in Stocks, Switzerland (current prices, Old System of Accounts)
- O.7 Gross Fixed Capital Formation (current prices, SNA68)
- O.8 GDP, New Zealand (1975 prices, Old System of Accounts)
- O.9 GDP, New Zealand (1975 prices, New SNA)
- O.10 GDP, New Zealand (1995 prices, SNA68)
- O.11 GDP, New Zealand (current prices, Old System of Accounts)
- O.12 GDP, New Zealand (current prices, New SNA)
- O.13 GDP, New Zealand (current prices, SNA68)
- O.14 Gross Fixed Capital Formation, New Zealand (current prices, Old System of Accounts)
- O.15 Gross Fixed Capital Formation, New Zealand (current prices, New System)
- O.16 Changes in Stocks, New Zealand (current prices, Old System of Accounts)
- O.17 Changes in Stocks, New Zealand (current prices, New System)
- O.18 Gross Fixed Capital Formation, New Zealand (current prices, SNA68)
- O.19 Population 15-64, Switzerland
- O.20 Population, Switzerland
- O.21 Population, Switzerland
- O.22 Manufacturing Employment Index, Switzerland (1958 = 100)
- O.23 Manufacturing Employment Index, Switzerland (1963 = 100)
- O.24 Average Employment, Switzerland
- O.25 Average Weekly Hours Worked in Manufacturing, Switzerland
- O.26 Average Weekly Hours Worked in Manufacturing, Switzerland
- O.27 Average Yearly Hours Worked, Switzerland
- O.28 Population 15-64, New Zealand
- O.29 Population, New Zealand
- O.30 Population, New Zealand
- O.31 Index of Employment in all Sectors except Agriculture, New Zealand (1958 = 100)
- O.32 Employment, New Zealand
- O.33 Average Weekly Hours Worked in Manufacturing, New Zealand
- O.34 Average Weekly Hours Worked in Manufacturing, New Zealand
- O.35 Average Yearly Hours Worked, New Zealand
- O.36 GDP, Japan (1995 prices)
- O.37 Population 15-64, Japan

- O.38 Exports, New Zealand (current prices)
- O.39 Imports, New Zealand (current prices)
- O.40 Exports, New Zealand (1995 prices)
- O.41 Imports, New Zealand (1995 prices)
- O.42 Total Exports, New Zealand (current prices)
- O.43 Total Imports, New Zealand (current prices)
- O.44 Total Exports to the United Kingdom, New Zealand (current prices)
- O.45 Total Imports from the United Kingdom, New Zealand (current prices)
- O.46 Total Imports in SITC 7, New Zealand (current prices)
- O.47 Total Imports in SITC 7 from the United Kingdom, New Zealand (current prices)
- O.48 Exports, Switzerland (current prices)
- O.49 Imports, Switzerland (current prices)
- O.50 Exports, Switzerland (1995 prices)
- O.51 Imports, Switzerland (1995 prices)
- O.52 Real GDP, Switzerland (1990 Geary-Khamis Dollars)
- O.53 Population, Switzerland
- O.54 Real GDP, New Zealand (1990 Geary-Khamis Dollars)
- O.55 Population, New Zealand
- O.56 Real GDP, Italy (1990 Geary-Khamis Dollars)
- O.57 Real GDP Index, Italy (1995 = 100)
- O.58 Population, Italy
- O.59 Population Ages 15-64, Italy
- O.60 Real GDP, United States (1990 Geary-Khamis Dollars)
- O.61 Real GDP Index, United States (1995 = 100)
- O.62 Population, United States
- O.63 Population 15-64, United States

**Original Data: Source**

- O.1 OECD National Accounts, GDP in 1975 prices, Old System of Accounts
- O.2 OECD National Accounts, GDP in 1995 prices
- O.3 OECD National Accounts, GDP in current prices, Old System of Accounts
- O.4 OECD National Accounts, GDP in current prices
- O.5 OECD National Accounts, Gross Fixed Capital Formation in current prices, Old System of Accounts
- O.6 OECD National Accounts, Changes in Stocks in current prices, Old System of Accounts
- O.7 OECD National Accounts, Gross Fixed Capital Formation in current prices
- O.8 OECD National Accounts, GDP in 1975 prices, Old System of Accounts
- O.9 OECD National Accounts, GDP in 1975 prices, New SNA
- O.10 OECD National Accounts, GDP in 1995 prices
- O.11 OECD National Accounts, GDP in current prices, Old System of Accounts
- O.12 OECD National Accounts, GDP in current prices, New SNA
- O.13 OECD National Accounts, GDP in current prices

- O.14 OECD National Accounts, Gross Fixed Capital Formation in current prices, Old System of Accounts
- O.15 OECD National Accounts, Gross Fixed Capital Formation in current prices, New SNA
- O.16 OECD National Accounts, Changes in Stocks in current prices, Old System of Accounts
- O.17 OECD National Accounts, Changes in Stocks in current prices, New SNA
- O.18 OECD National Accounts, Gross Fixed Capital Formation in current prices
- O.19 OECD CDE, Population, Ages 15-64
- O.20 IFS CD-ROM, Population
- O.21 OECD CDE, Population, Total
- O.22 United Nations Statistical Yearbook, Employment in Manufacturing
- O.23 United Nations Statistical Yearbook, Employment in Manufacturing
- O.24 ILO, Employment, General Level: Total Employment
- O.25 United Nations Statistical Yearbook, Hours of Work: Manufacturing
- O.26 United Nations Statistical Yearbook, Hours of Work: Manufacturing
- O.27 OECD CDE, Average Actual Annual Hours Worked per Person in Employment
- O.28 OECD CDE, Population, Ages 15-64
- O.29 IFS CD-ROM, Population
- O.30 OECD CDE, Population, Total
- O.31 United Nations Statistical Yearbook, Employment, Excluding Agriculture
- O.32 OECD CDE, Employment
- O.33 United Nations Statistical Yearbook, Hours of Work: Manufacturing
- O.34 ILO LABORSTA database, Hours of Work in Manufacturing
- O.35 OECD CDE, Average Actual Annual Hours Worked per Person in Employment
- O.36 Economic and Social Research Institute Website, Gross Domestic Expenditure
- O.37 WDI, Population Ages 15-64, Total
- O.38 OECD National Accounts, Exports in current prices
- O.39 OECD National Accounts, Imports in current prices
- O.40 OECD National Accounts, Exports in constant prices
- O.41 OECD National Accounts, Imports in constant prices
- O.42 OECD ITCS, Exports to the World, Total
- O.43 OECD ITCS, Imports from the World, Total
- O.44 OECD ITCS, Exports to the United Kingdom, Total
- O.45 OECD ITCS, Imports from the United Kingdom, Total
- O.46 OECD ITCS, Imports from the World, SITC 7
- O.47 OECD ITCS, Imports from the United Kingdom, SITC 7
- O.48 OECD National Accounts, Exports in current prices
- O.49 OECD National Accounts, Imports in current prices
- O.50 OECD National Accounts, Exports in constant prices
- O.51 OECD National Accounts, Imports in constant prices
- O.52 Maddison (1995), Levels of GDP per Capita
- O.53 Maddison (995), Levels of GDP per Capita
- O.54 Maddison (1995), Levels of GDP
- O.55 IFS CD-ROM, GDP Volume Index, 13699BVRZF...
- O.56 Maddison (1995), Population

- O.57 WDI, Population Ages 15-64, Total
- O.58 Maddison (1995), Levels of GDP
- O.59 IFS CD-ROM, GDP Volume Index, 11199BVRZF...
- O.60 Maddison (1995), Population
- O.61 WDI, Population Ages 15-64, Total

Notes:

WDI denotes the World Bank's *World Development Indicators* CD-ROM, 2002.  
 IFS denotes the International Monetary Fund's *International Financial Statistics* CD-ROM, February 2003.  
 Maddison (1995) denotes Angus Maddison, *Monitoring the World Economy 1820-1992*, Paris: Organisation for Economic Co-Operation and Development, 1995.  
 Data from OECD CDE is taken from the OECD's *Corporate Data Environment* available at: <http://www1.oecd.org/scripts/cde>.  
 OECD ITCS denotes the OECD's *International Trade by Commodity Statistics* database.

**Constructed Series**

- C.1 GDP in 1995 prices, Switzerland (mil. Francs)
- C.2 GDP in current prices, Switzerland (mil. Francs)
- C.3 Investment in 1995 prices, Switzerland (mil. Francs)
- C.4 Investment in current prices, Switzerland (mil. Francs)
- C.5 GDP in 1995 prices, New Zealand (mil. Dollars)
- C.6 GDP in current prices, New Zealand (mil. Dollars)
- C.7 Investment in 1995 prices, New Zealand (mil. Dollars)
- C.8 Investment in current prices, New Zealand (mil. Dollars)
- C.9 Population, Switzerland (thousand persons)
- C.10 Population Ages 15-64, Switzerland (thousand persons)
- C.11 Employment, Switzerland (thousand persons)
- C.12 Hours Worked per Week, Switzerland
- C.13 Population, New Zealand (thousand persons)
- C.14 Population Ages 15-64, New Zealand (thousand persons)
- C.15 Employment, New Zealand (thousand persons)
- C.16 Hours Worked per Week, Switzerland
- C.17 Terms of Trade Index, Switzerland (1973 = 100)
- C.18 Terms of Trade Index, New Zealand (1974 = 100)
- C.19 GDP per Working Age Person, Switzerland, detrended by 2 percent per year
- C.20 GDP per Working Age Person, New Zealand, detrended by 2 percent per year
- C.21 Capital Stock, Switzerland (1995 Swiss Francs)
- C.22 Capital Stock, New Zealand (1995 New Zealand Dollars)
- C.23 TFP, detrended by 2 percent per year, Switzerland
- C.24 TFP, detrended by 2 percent per year, New Zealand
- C.25 GDP per Working Age Person, Japan, detrended by 2 percent per year
- C.26 New Zealand's Exports to the United Kingdom as a percentage of total exports

- C.27 New Zealand's Imports from the United Kingdom as a percentage of total imports  
 C.28 New Zealand's Imports of SITC 7 from the United Kingdom as a percentage of total imports of SITC 7  
 C.29 GDP per Working Age Person, Switzerland (mil. 1990 Geary-Khamis Dollars)  
 C.30 GDP per Working Age Person, New Zealand (mil. 1990 Geary-Khamis Dollars)  
 C.31 GDP per Working Age Person, Italy (mil. 1990 Geary-Khamis Dollars)  
 C.32 GDP per Working Age Person, United States (mil. 1990 Geary-Khamis Dollars)

### Construction of Series

**Population:** For both countries, the number of working age people in 1955 was not available. We chose the number of working age people in 1955 so that the fraction of working age people in the total population is the same in 1955 as it is in 1956.

**GDP:** The New Zealand data are presented in different systems of accounts for the period prior to 1960, the period spanning 1960-1970, and the period from 1970 onward. For Switzerland, the data change account systems only in 1970. In both cases, we join the series by ratio splicing.

**Capital Stock:** The capital stocks were computed by accumulating real investment using the perpetual inventory method. The procedure is explained in section 4 of the paper. Real investment is constructed by deflating nominal investment by the GDP deflator.

**Labor:** For New Zealand, employment data for the years 1955-1959 are an index covering all sectors except agriculture. This index is spliced to the employment series in 1960. For Switzerland employment data for the years 1955-1968 are indices of employment in manufacturing. These indices are spliced to the employment series. The employment series is multiplied by the average hours worked per week series to yield total hours worked.

Variables are detrended according to:

$$Y_t^d = \frac{Y_t}{(1 + \gamma)^{t-t_0}}$$

where  $Y_t^d$  is the detrended series,  $Y_t$  is the original series,  $\gamma$  is the trend growth rate, and  $t_0$  is the base year.

**Figure 1:** The figure shows series C.28, which is constructed by splicing O.60 with O.61 and dividing by O.62 spliced with O.63.

**Figure 2:** The figure shows series C.26, which is constructed by splicing O.54 with C.5 and dividing by O.55 spliced with C.14.

**Figure 3:** The figure shows series C.25, which is constructed by splicing O.52 with C.1 and dividing by O.53 spliced with C.10.

**Figure 4:** The figure shows series C.27, which is constructed by splicing O.56 with O.57 and dividing by O.58 spliced with O.59.

**Figure 5:** The figure shows series C.20, which is constructed by dividing C.5 by C.14 and detrending the result by 2 percent per year.

**Figure 6:** The figure shows series C.19, which is constructed by dividing C.1 by C.10 and detrending the result by 2 percent per year.

**Figure 7:** The figure shows series C.26, which is constructed by dividing O.36 by O.37 and detrending the result by 2 percent per year. Working age population is not available for 2001 and 2002, so it is assumed that the working age population in 2001 and 2002 grew at the same rate it did in 2000.

**Figure 8:** The figure shows series C.20 and C.24. C.20 was constructed as in Figure 5, and C.24 is TFP raised to the  $1/(1-\alpha)$  power and detrended by 2 percent per year.

**Figure 9:** The figure shows series C.19 and C.23. C.219 was constructed as in Figure 6, and C.23 is TFP raised to the  $1/(1-\alpha)$  power and detrended by 2 percent per year.

**Figure 10:** Figure 10a shows C.20 (data) and its analogue in the model. C.20 is constructed as in Figure 5. Figure 10b shows C.22 divided by C.5 as data, and the analogue of this variable the model. Figure 10c shows C.16 (data) and its analogue in the model.

**Figure 11:** Figure 11a shows C.19 (data) and its analogue in the model. C.19 is constructed as in Figure 5. Figure 11b shows C.21 divided by C.1 as data, and the analogue of this variable the model. Figure 11c shows C.12 (data) and its analogue in the model.

**Figure 12:** The figure shows series C.18. Construct the import price index by dividing O.39 by O.41 and the export price index by dividing O.38 by O.40. Series C.18 is constructed by dividing the export price index by the import price index.

**Figure 13:** The figure shows series C.26 (exports) and C.27 (imports). C.26 is constructed by dividing O.44 by O.42 and C.27 is constructed by dividing O.45 by O.43.

**Figure 14:** The figure shows series C.28, which is constructed by dividing O.47 by O.46.

**Figure 15:** The figure shows series C.17. Construct the import price index by dividing O.48 by O.50 and the export price index by dividing O.49 by O.51. Series C.17 is constructed by dividing the export price index by the import price index.