

## Data Appendix

“What Can We Learn from the 1998-2002 Depression in Argentina?”

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### Original Data: Description

- O.1 GDP, United States (millions of 1990 Geary-Khamis Dollars)
- O.2 GDP Volume Index, United States (2000 = 100)
- O.3 GDP, Argentina (millions of 1990 Geary-Khamis Dollars)
- O.4 GDP, Argentina (1986 pesos)
- O.5 GDP Volume Index, Argentina (2000 = 100)
- O.6 Population, United States (thousands)
- O.7 Population Ages 15-64, United States
- O.8 Population, Argentina (thousands)
- O.9 Population Ages 15-64, Argentina
- O.10 Investment, Argentina (1986 pesos)
- O.11 GDP, Argentina (millions of pesos)
- O.12 Gross Fixed Capital Formation, Argentina (millions of pesos)
- O.13 Changes in Inventories, Argentina (millions of pesos)
- O.14 GDP Deflator, Argentina (2000 = 100)
- O.15 CPI, Argentina (2000 = 100)
- O.16 Inward FDI, Argentina (millions of dollars)
- O.17 Inward FDI, Chile (millions of dollars)
- O.18 PPI, Argentina (1995 = 100)
- O.19 Exchange Rate, Argentina-U.S., period average (pesos per dollar)
- O.20 Exchange Rate, Chile-U.S., period average (pesos per dollar)
- O.21 GDP, Chile (billions of pesos)
- O.22 Exports, Argentina (millions of dollars)
- O.23 Imports, Argentina (millions of dollars)
- O.24 CPI, United States (2000 = 100)
- O.25 PPI, United States (2000 = 100)
- O.26 Overall Government Balance, Including Off-budget Items, Argentina (percent of GDP)
- O.27 Population, Argentina
- O.28 Hours Worked, Argentina (1970 = 100)
- O.29 External Debt, Argentina (dollars)
- O.30 PPI, Argentina (2000 = 100)
- O.31 Money Market Interest Rate on Peso Deposits, Argentina (percent per year)
- O.32 Money Market Interest Rate on Foreign Currency Deposits, Argentina (percent per year)
- O.33 Consolidated Central Government Revenue, Argentina (millions of pesos)
- O.34 Consolidated Central Government Expenditure, Argentina (millions of pesos)
- O.35 Economically Active<sup>1</sup> Population (percent of total population)
- O.36 Employed Population (percent of total population)
- O.37 Part-time<sup>2</sup> Employed Population (percent of economically active population)

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<sup>1</sup> Economically active is defined as employed or actively seeking employment.

<sup>2</sup> Part-time is defined as less than 35 hours per week.

- O.38 Economically Active Population (percent of total population)
- O.39 Employed Population (percent of total population)
- O.40 Part-time Employed Population (percent of economically active population)

**Original Data: Source**

- O.1 Maddison, Levels of GDP
- O.2 IFS, 11199BVRZF...
- O.3 Maddison, Levels of GDP
- O.4 Kydland and Zarazaga (2002), originally from Meloni (1999)
- O.5 IFS, 21399BVPZF...
- O.6 Maddison, Population
- O.7 WDI, SP.POP.TOTL, SP.POP.1564.TO.ZS
- O.8 Maddison, Population
- O.9 WDI, SP.POP.TOTL, SP.POP.1564.TO.ZS
- O.10 Kydland and Zarazaga (2002), originally from Meloni (1999)
- O.11 IFS, 21399B..ZF...
- O.12 IFS, 21393E..ZF...
- O.13 IFS, 21393I..ZF...
- O.14 IFS, 21399BIPZF...
- O.15 IFS, 21364...ZF...
- O.16 IFS, 21378BEDZF...
- O.17 IFS, 22878BEDZF...
- O.18 IFS (June 2002), 21363...ZF...
- O.19 IFS, 213..RF.ZF...
- O.20 IFS, 228..RF.ZF...
- O.21 IFS, 22899B..ZF...
- O.22 DOTS, 21370..DZD001
- O.23 DOTS, 21371..DZD001
- O.24 IFS, 11164...ZF...
- O.25 IFS, 11163...ZF...
- O.26 Krueger (2002), <http://www.imf.org/external/np/speeches/2002/071702.htm>, downloaded June 2004
- O.27 WDI, SP.POP.TOTL,
- O.28 Kydland and Zarazaga (2002)
- O.29 WDI, DT.DOD.DECT.CD
- O.30 IFS, 21363...ZF...
- O.31 IFS, 21360B..ZF...
- O.32 IFS, 21360B.FZF...
- O.33 IFS, 21381...ZF...
- O.34 IFS, 21382...ZF...
- O.35 Instituto Nacional de Estadística y Censos, *Encuesta Permanente de Hogares*, Excel: Tasas de actividad, empleo, desocupación y subocupación correspondientes al total de aglomerados urbanos desde 1974 en adelante

- O.36 Instituto Nacional de Estadística y Censos, *Encuesta Permanente de Hogares*, Excel: Tasas de actividad, empleo, desocupación y subocupación correspondientes al total de aglomerados urbanos desde 1974 en adelante
- O.37 Instituto Nacional de Estadística y Censos, *Encuesta Permanente de Hogares*, Excel: Tasas de actividad, empleo, desocupación y subocupación correspondientes al total de aglomerados urbanos desde 1974 en adelante
- O.38 Instituto Nacional de Estadística y Censos, *Encuesta Permanente de Hogares*, Excel: Tasa de actividad, empleo, desocupación y subocupación por regiones y aglomerados desde el primer semestre de 2003 en adelante
- O.39 Instituto Nacional de Estadística y Censos, *Encuesta Permanente de Hogares*, Excel: Tasa de actividad, empleo, desocupación y subocupación por regiones y aglomerados desde el primer semestre de 2003 en adelante
- O.40 Instituto Nacional de Estadística y Censos, *Encuesta Permanente de Hogares*, Excel: Tasa de actividad, empleo, desocupación y subocupación por regiones y aglomerados desde el primer semestre de 2003 en adelante

Notes:

WDI denotes the World Bank's *World Development Indicators* at

<http://devdata.worldbank.org/dataonline>, downloaded July 2006.

IFS denotes the International Monetary Fund's *International Financial Statistics* CD-ROM, July 2006 (unless dated otherwise).

Maddison denotes Angus Maddison, *Historical Statistics, World Population, GDP and Per Capita GDP, 1-2001 AD*, at <http://www.ggdc.net/maddison>, downloaded June 2004.

DOTS denotes the International Monetary Fund's *Direction of Trade Statistics* CD-ROM, July 2006.

Instituto Nacional de Estadística y Censos is at <http://www.indec.gov.ar>,<sup>3</sup> downloaded July 2006.

### Constructed Series: Description

- C.1 Real GDP Index, United States (2000 = 100)
- C.2 Real GDP Index, Argentina (2000 = 100)
- C.3 Population Ages 15-64, United States
- C.4 Population Ages 15-64, Argentina
- C.5 Investment, Argentina (millions of 2000 pesos)
- C.6 Capital Stock, Argentina (millions of 2000 pesos)
- C.7 Full-time-equivalent Employed Population (percent of total population)
- C.8 Full-time-equivalent Employed Population (percent of total population)
- C.9 Hours Worked per Week, Argentina
- C.10 GDP, Argentina (millions of 2000 pesos)
- C.11 Hours Worked per Week, Argentina
- C.12 PPI, Argentina (2000 = 100)

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<sup>3</sup> Specifically, click 1) trabajo e ingresos, 2) empleo y desempleo, and 3) serie histórica.

## Construction of Series

- C.1 O.2 spliced with O.1
- C.2 O.5 spliced with O.4 and O.3
- C.3 O.7 for 1960-2004 and an adjustment of O.6 for 1900-1959, where O.6 was multiplied by the fraction of working-age people in the total population in 1960
- C.4 O.9 for 1960-2004 and an adjustment of O.8 for 1900-1959, where O.8 was multiplied by the fraction of working-age people in the total population in 1960
- C.5 Sum of O.12 and O.13, deflated by O.14, then spliced with O.10
- C.6 Computed by cumulating C.5 as described below
- C.7 Computed from O.35, O.36, and O.37 as  $O.36 - (.5 * O.37 * O.35 / 100)$
- C.8 Computed from O.38, O.39, and O.40 as  $O.39 - (.5 * O.40 * O.38 / 100)$
- C.9 C.8 spliced with C.7, averaged each year to obtain an annual series, and then multiplied by  $O.27 * 40 / 100$
- C.10 O.11 deflated by O.14
- C.11 C.9 spliced with O.28
- C.12 O.30 spliced with O.18

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

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

**Deflating:** Nominal GDP and investment were both deflated using the GDP deflator; that is, the series were divided by O.14 and multiplied by 100.

**Capital Stock:** The capital stock was generated using a perpetual inventory method. Given an initial capital stock, investment 1918-2004 was cumulated using the law of motion of capital with a depreciation rate of 0.05:

$$K_{t+1} = (1 - \delta) K_t + I_t .$$

The initial capital stock was chosen so that the growth rate of the capital stock from 1918-1919 matched the average annual growth rate of the capital stock from 1918-1928.

**Hours Worked:** The data on hours worked 1974-2004 are estimated from the data reported by the Instituto Nacional de Estadística y Censos in its *Encuesta Permanente de Hogares* (<http://www.indec.gov.ar>). These data, based on surveys of urban areas that contain about 65 percent of the population, report on the percentage of population that is working either part time or full time. Full-time work is assumed to be 40 hours per week, and part-time is assumed to be 20 hours. Data are averaged over the two surveys per year. (The data from the third surveys are ignored for 1998 and 1999. The data for 1986 are from one survey only.) These percentages are then applied to the data for total population to obtain a series for hours worked. This series is spliced with data from Kydland and Zarazaga (2002) for 1950-1973, which were constructed using data from Elías (1992) and from the *Encuesta Permanente de Hogares*.

## Figures

**Figure 1:** The solid line is C.1 divided by C.3. The dashed line is the 2 percent annual trend.

**Figure 2:** The solid line is C.2 divided by C.4. The dashed line is the 2 percent annual trend.

**Figure 3:** The solid line is C.2 divided by C.4. The dashed line, TFP, is calculated as

$$A_t = Y_t / (K_t^\alpha L_t^{1-\alpha}),$$

where  $\alpha = 0.3$ , using C.6 as the capital stock, C.11 as total hours worked per week, and C.10 as output.

**Figure 4:** The solid lines are C.2 divided by C.4. The dashed lines are the analogues in the models.

**Figure 5:** The solid lines are C.11 divided by C.4. The dashed lines are the analogues in the models.

**Figure 6:** The solid lines are C.6 divided by C.10. The dashed lines are the analogues in the models.

**Figure 7:** The solid lines are C.5 divided by C.10. The dashed lines are the analogues in the models.

**Figure 8:** The series is the percent growth per year of O.15.

**Figure 9:** The solid line is O.31. The dashed line is O.32.

**Figure 10:** The solid line is O.22 multiplied by O.19 and divided by O.11. The dashed line is O.23 multiplied by O.19 and divided by O.11.

**Figure 11:** The solid line is O.16 multiplied by O.19 and divided by O.11. The dashed line is O.17 multiplied by O.20 and divided by O.21.

**Figure 12:** The solid line is O.33 divided by O.11. The dashed line is O.34 divided by O.11.

**Figure 13:** The series is O.26.

**Figure 14:** The series is O.29 multiplied by O.19 and divided by O.11.

**Figure 16:** The real exchange rate and the relative price of nontraded goods are calculated in the usual way using O.19 as the nominal exchange rate, O.15 as the overall price level and C.12 as the traded goods price level for Argentina, and O.24 as the overall price level and O.25 as the traded goods price level for the United States.