

Appendix A

POPULATION

Source Notes on Population Estimates

Advanced Capitalist Countries

All figures are on a mid-year basis, and for 1950 onwards, unless otherwise specified, they are from OECD, *Labour Force Statistics*. Adjustments were made to eliminate the impact of frontier changes and the figures refer throughout to population within 1990 frontiers. In six of the countries there were no frontier changes. In Finland the territorial change in 1940 did not affect population as the people in the area ceded to the USSR were moved to other parts of Finland. For the other ten countries, the adjustments to the actual population figures are given below. In Austria and Italy, the figures for population within present frontiers were available annually from official sources. For other countries, I generally applied the adjustment coefficient for the year of merger or separation uniformly for all earlier years (except for Japan).

Australia: Bureau of Census and Statistics, *Demography Bulletin Yearbooks to 1957*.

Austria: Up to 1960 from *Statistisches Handbuch für die Republik Österreich*, 1975, p. 9; *Statistisches Handbuch für den Bundesstaat Österreich*, Vienna, 1936, p. 21; and A. Kausel, *Österreichs Volkseinkommen 1830 bis 1913*, Statistical Office, Vienna, 1979. The figures refer throughout to the present territory of Austria.

Belgium: Interpolated from *Annuaire statistique de la Belgique et du Congo Belge*, 1955. I raised the 1820-1924 figures by 0.8 per cent to include Eupen and Malmedy, acquired in 1925.

Canada: M.C. Urquhart and K.A.H. Buckley, *Historical Statistics of Canada*, Cambridge, 1965, p. 14. Years before 1870 from E. Kirsten, E.W. Buchholz, and W. Kollmann, *Raum und Bevölkerung in der Weltgeschichte*, Ploetz, Würzburg, 1956, and information supplied by R. Marvin McInnis. 1820-1948 increased by 2.6 per cent to include Newfoundland, acquired in 1949.

Denmark: S.A. Hansen, *Økonomisk vækst i Danmark*, vol. ii, Institute of Economic History, Copenhagen, 1974, pp. 201-4. 1820-1920 increased by 5.3 per cent to include North Slesvig.

Finland: O. Turpeinen, *Ikaryhmittainen Kuolleisuus Suomessa vv. 1751-1970*, Helsinki, 1973.

France: 1820-1860 from L. Henry and Y. Blayo, 'La Population de la France de 1740 à 1860', *Population*, November 1975, pp. 97-9; 1861-1950, from *Annuaire statistique de la France*, 1966, pp. 66-72. Figures include Savoy, Nice and Alsace-Lorraine throughout.

Germany: 1820-1960 derived from estimates of population within borders of the epoch in A. Maddison, *Dynamic Forces in Capitalist Development*, Oxford University Press, 1991, and adjusted to refer throughout to the territory of the Federal Republic (1989 boundaries). 1960 onwards from OECD, *Labour Force Statistics*. 1820-1944 figures are benchmarked on the proportion of population with the Federal Republic territory in 1936. See notes on GDP coverage in Appendix B below.

Italy: 1820 derived from K.J. Beloch, *Bevölkerungsgeschichte Italiens*, de Gruyter, Berlin, 1961, pp. 351-4. 1870-1950 resident population from *Sommario di statistiche storiche dell'Italia, 1861-1975*, ISTAT, Rome, 1976, adjusted to mid-year.

Japan: Estimates for 1820-1860 supplied by Akira Hayami; 1870-1950, from *Japan Statistical Yearbook 1975*, pp. 9, 10 and 13, adjusted to mid-year. Figures for 1935-46 include armed forces overseas. Data on armed forces and geographic change taken from I.B. Taeuber, *The Population of Japan*, Princeton, 1958, chapter XVI. It was assumed that in 1946 only half of the overseas forces had been repatriated to Japan. I adjusted for the temporary loss of Okinawa, i.e. an upward adjustment of 0.78 per cent for 1946 rising gradually to 0.92 per cent in 1972.

Netherlands: 1900-50, from *Zeventig jaren statistiek in tijdreeksen*, CBS, The Hague, 1970, p. 14, adjusted to a mid-year basis. 1870-1900, interpolated from census results from *Jaarcijfers voor Nederland 1939*, The Hague, 1940, p. 4. Earlier years from J.A. Faber *et al.*, 'Population Changes and Economic Development in the Netherlands: A Historical Survey', *A.A.G. Bijdragen*, vol. 12, 1965, p. 110, and C.A. Oomens, *De loop van de bevolking van Nederland in de negentiende eeuw*, *Statistische onderzoeken*, M35, CBS, The Hague, 1989, p. 16.

New Zealand: 1870-1919 non Maori population from K. Rankin, "New Zealand's Gross National Product: 1859-1939", *Review of Income and Wealth*, March 1992. Maori population 1870-1919 interpolated from figures for benchmark years in G.R. Hawke, *The Making of New Zealand*, Cambridge University Press, 1985, p. 20. 1920-49 from UN, *Demographic Yearbook*, 1960, pp. 148-50. 1950 onwards from OECD sources.

Norway: *Historical Statistics 1968*, CBS, Oslo, pp. 44-6.

Sweden: Figures for 1820 onwards supplied by Olle Krantz.

Switzerland: *Annuaire statistique de la Suisse*, 1952, pp. 42-3, and K.B. Mayer, *The Population of Switzerland*, Columbia, 1952, pp. 19 and 29.

UK: 1871-1949 from C.H. Feinstein, *National Income Expenditure and Output of the United Kingdom 1855-1965*, Cambridge, 1972, pp. T120-1, home population except 1915-20 and 1939 onwards when armed forces overseas are included. 1820-1871, England (excluding Monmouth) from E.A. Wrigley and R.S. Schofield, *The Population of England 1541-1871*, Arnold, London, 1981, pp. 533-5. Ireland 1821 derived from D. Dickson, C. O Gráda, and S. Daultrey, 'Hearth Tax, Household Size, and Irish Population Change 1672-1821', *Proceedings of the Royal Irish Academy*, vol. 82, C, No. 6, Dublin, 1982; and 1821-41 from J. Lee, 'On the Accuracy of the Pre-Famine Irish Censuses', in J.M. Goldstrom and I.A. Clarkson, *Irish Population, Economy, and Society*, Oxford, 1981. Other parts of UK from B.R. Mitchell, *Abstract of British Historical Statistics*, Cambridge, 1962, and P. Deane and W.A. Cole, *British Economic Growth 1688-1959*, Cambridge, 1964. 1820-1919 reduced by 6.63 per cent to exclude Southern Ireland, lost in 1920.

My population adjustment for the years 1820-1919 was made in such a way as to ensure congruence with the GDP estimates available for these years. In most cases, retropolation of a fixed adjustment coefficient which refers to the year in which frontiers changed can be expected to provide a reasonable approximation to the situation one would find if one could recalculate the annual figures for each area separately. In the British case we do have separate information on the population of Ireland as a whole and for the rest of the UK before 1920, and we know that the movements in the two parts of the country were quite disparate. Unfortunately, there are, as yet, no separate estimates of population or GDP for Southern Ireland before 1926. Our

counterfactual constant frontier population is therefore somewhat anomalous, but it is the best option available if we are to preserve consistency with the GDP series. Table A-1 illustrates the problem.

Table A-1
Population of the UK and the Irish Component 1820-1920

	Actual Population in Year Cited (000s)				Irish	Southern	My Counterfac-
	UK			Ireland	Non-Ireland	Ireland	Southern
	Proportion				Irish	tional Estimate	
					(%)	Proportion	of UK Popu-
						(%)	lation adjusted
							to exclude impact
							of frontier change
							(000s)
1820	21,240	14,156	7,084	n.a.	33.4	n.a.	19,832
1840	26,758	18,403	8,355	n.a.	31.2	n.a.	24,985
1870	31,393	25,974	5,419	n.a.	17.3	n.a.	29,312
1900	41,155	36,686	4,469	n.a.	10.9	n.a.	38,426
1913	45,649	41,303	4,346	n.a.	9.5	n.a.	42,622
1920	46,821	42,460	4,361	3,103	9.3	6.63	43,718

USA: *Historical Statistics of the United States, Colonial Times to 1970*, US Department of Commerce, 1975, pp. 8 and 1168, resident population except for 1917-19, and 1930 onwards when armed forces overseas are included. 1820-1949 increased by 0.39 per cent to include Alaska and Hawaii, incorporated in 1950.

South European Countries

Greece: 1900-40 derived (with some interpolation between 1900 and 1920) from I. Svennilson, *Growth and Stagnation in the European Economy*, ECE, Geneva, 1954, pp. 236-7. 1941-9 from UN, *Demographic Yearbook 1951*, New York, 1952, pp. 124-5. 1950 onwards from OECD sources. Estimates are adjusted throughout to refer to present territory.

Ireland: 1820-1870 from J.M. Goldstrom and L.A. Clarkson, *Irish Population, Economy and Society*, Oxford University Press, 1981; 1870-1920 from Feinstein (1972), table 55; 1920-50 from UN, *Demographic Yearbook*, New York, 1960. 1950 onwards from OECD sources. The estimates are adjusted to refer to the present territory of the Irish Republic.

Portugal: 1820-1969 from A.B. Nunes, E. Mata and N. Valerio, "Portuguese Economic Growth, 1833-1985", *Journal of European Economic History*, Fall 1989; 1970 onwards from OECD, *Labour Force Statistics*, Paris.

Spain: 1820-1955 from A. Carreras, ed., *Estadísticas Históricas de España: Siglos XIX-XX*, Fundacion Banco Exterior, Madrid, 1989, pp. 68-72; 1956-9 interpolated; 1960-90 from OECD, *National Accounts 1960-91*, vol. I, Paris, 1993.

Turkey: 1900-1913 derived from E. Kirsten, E.W. Buchholtz, and W. Köllmann, *Raum und Bevölkerung in der Weltgeschichte*, Ploetz, 1956, vol. II, p. 247; 1927-49 from UN, *Demographic Yearbook*, 1960; 1950 onwards from OECD sources. Estimates are adjusted throughout to refer to present boundaries.

East European Countries

Bulgaria: 1870-1940 derived from I. Sventnilson, *Growth and Stagnation in the European Economy*, ECE, Geneva, 1954, p. 237 (adjusted to postwar frontiers); 1941-9 from UN, *Demographic Yearbook*, New York, 1960; 1950s and 60s from Joint Economic Committee, US Congress, *Economic Developments in Eastern Europe*, Washington DC 1970, p. 125; 1970-85 from World Bank, *Historically Planned Economies: A Guide to the Data*, Washington DC, 1992. Thereafter from World Bank, *World Tables 1994*. Figures are adjusted to refer to present territory.

Czechoslovakia: 1820-1913 from sources in A. Maddison, "Measuring European Growth: The Core and the Periphery", in E. Aerts and N. Valerio, *Growth and Stagnation in the Mediterranean World*, Leuven University Press, 1990, p. 110; 1920-49 from UN, *Demographic Yearbook*, New York, 1960; thereafter as for Bulgaria.

Hungary: as for Czechoslovakia.

Poland: as for Bulgaria.

Romania: same sources as for Bulgaria; 1870-1913 derived from Sventnilson (1954), 1920-49 from UN (1960).

USSR: 1820-1897 from B.R. Mitchell, *European Historical Statistics 1750-1970*, Macmillan, London, 1975, p. 65; 1897-1940 from F. Lorimer, *The Population of the Soviet Union: History and Prospects*, League of Nations, Geneva, 1946; 1946-49 movement from G.W. Nutter, *The Growth of Industrial Production in the Soviet Union*, NBER, Princeton, 1962, p. 519; 1950-69 from *Narodnoe Khoziastvo SSSR*, Moscow, various issues (adjusted to mid year); 1970-89 from World Bank, *Historically Planned Economies: A Guide to the Data*, Washington DC, 1992. 1990 and 1991 from B.M. Bolotin, "The Former Soviet Union as Reflected in National Accounts Statistics", *In Search of Answers in the Post Soviet Era*, IMEMO, Moscow, 1992. 1991-2 movement derived from World Bank, *World Tables 1994*, estimates for the 15 successor countries. Figures refer throughout to territory of USSR in 1990, with adjustment of pre 1940 figures by 1940 ratio of expanded Soviet territory to population within previous boundaries (1.118).

Yugoslavia: 1890-1949 derived from I. Sventnilson, *Growth and Stagnation in the European Economy*, ECE, Geneva, 1954, p. 237. 1950 onwards from OECD Development Centre. Figures refer to post 1954 boundaries throughout.

Latin America

Argentina: 1820-1890 from L. Bethell, ed., *The Cambridge History of Latin America*, vol. III, 1985, p. 626 and vol. IV, 1986, p. 122; 1900-69 from André Hofman, "International Estimates of Capital: A 1950-1989 Comparison of Latin America and the USA", *Research Memorandum*

509, Institute of Economic Research, University of Groningen, October 1992; 1970-90 from World Bank, *World Tables*, Washington DC, 1992.

Brazil: 1820 from N.H. Leff, *Underdevelopment and Development in Brazil*, vol. 1, Allen and Unwin, London, 1982, p. 241; 1851-1949 from IBGE, *O Brasil em Numeros*, Rio, 1960, p. 5; 1950-88 from A. Maddison and Associates, *The Political Economy of Poverty, Equity and Growth: Brazil and Mexico*, Oxford University Press, New York, 1992; 1989 onwards from World Bank sources.

Chile: 1820-1900 from B.R. Mitchell, *International Historical Statistics: The Americas and Australasia*, Macmillan, London, 1983, p. 51. 1900-90 from Hofman, 1992 (as for Argentina).

Colombia: 1820-1990 as for Chile.

Mexico: 1820-90 derived from A. Rozenblat, *La Población Indígena de América desde 1492 hasta la Actualidad*, ICE, Buenos Aires, 1945, and F. Rosenzweig, ed., *Fuerza de Trabajo y Actividad Económica Por Sectores, Estadísticas Económicas del Porfiriato*, Colegio de México, no date (1960?). 1895-1909 and 1921-49 from INEGI, *Estadísticas Históricas de México*, vol. I, Mexico DF, 1985, p. 311; 1910-21 from R.G. Greer, "The Demographic Impact of the Mexican Revolution 1910-21", Master's thesis, University of Texas, 1966. 1950-84 from Maddison and Associates (1992); 1985 onwards from World Bank, *World Tables*, Washington DC, 1992.

Peru: 1820-1900 derived from B.R. Mitchell (1983), p. 52 and L. Bethell, ed. vol. IV (1986), p. 122; 1920-50 movement backcast from UN, *Demographic Yearbook 1960*, New York, 1960, pp. 136-8; 1950-85 from R. Webb, *The Political Economy of Poverty, Equity and Growth: Peru*, 1987, processed. 1986 onwards from World Bank, *World Tables*, Washington DC, 1992. 1901-19 figures are interpolations.

Venezuela: 1820-1969 derived from A. Baptista, *Bases cuantitativas de la economía venezolana 1820-1989*, Comunicaciones Corporativas D, Caracas, 1991, p. 21.

Asia

Bangladesh: Prepartition (1941) population estimated at 41,966 thousand by K. Davis, *Population of India and Pakistan*, Princeton, 1951, p. 198 from 1941 census. For earlier years population assumed to move (with intercausal interpolation) as in prepartition Bengal (plus native States and agencies) as given in the censuses from 1891 to 1941 (see M.W.M. Yeatts, *Census of India 1941*, vol. I, *India, Part I Tables*, Delhi, 1943, pp. 62-6); 1950-60 from OECD Development Centre, 1970 onwards from World Bank, *World Tables*; 1960-70 movement interpolated between these two sources.

Burma: Census results for 1891-1941 are given in Aye Hlaing, "Trends of Economic Growth and Income Distribution in Burma 1870-1940", *Journal of the Burma Research Society*, 1964, p. 96. I interpolated these and estimated 1870 from the movement he shows for Lower Burma. 1950 onwards from OECD Development Centre.

China: 1820-1930 derived (with interpolation) from P.K.C. Liu and Kuo-shu Hwang, "Population Change and Economic Development in Mainland China since 1400", in Chi-ming Hou and Tzong-shian Yu, eds., *Modern Chinese Economic History*, Academia Sinica, Taipei,

1979, p. 82, and 1933-53 (with interpolation) from D.H. Perkins, *Agricultural Development in China 1368-1968*, Aldine, Chicago, 1969, p. 16. 1950-69 from *Statistical Yearbook of China*, State Statistical Bureau, People's Republic of China, Hong Kong, 1984, adjusted to a mid-year basis; 1970-90 from World Bank, *Historically Planned Economies: A Guide to the Data*, Washington DC, 1992. 1991 onwards from World Bank.

India: 1820 derived by interpolation of Irfan Habib's estimate of 200 million in 1800 (see "Population" in T. Raychaudhuri and I. Habib, *The Cambridge Economic History of India*, Cambridge, 1982, p. 167 and Moni Mukherjee's estimate of 227 million for 1856. 1856-1946 from A. Maddison, *Class Structure and Economic Growth*, Norton, New York, 1971, pp. 164-5. The 1820-1946 movement is taken here to be parallel to that for undivided India (all figures multiplied by .823367 - the 1946 ratio). 1950-90 supplied by the Central Statistical Organisation, New Delhi in May 1992. 1991 onwards from World Bank. Indian figures are for fiscal years beginning 1st April.

Indonesia: 1820-70 from A. Maddison, "Dutch Income in and from Indonesia", *Modern Asian Studies*, 1989. 1870-1990 supplied by Pierre van der Eng. 1991 onwards from World Bank. Irian Jaya is included in the population figures throughout. East Timor is included from 1980 onwards.

Pakistan: Prepartition (1941) population estimated at 28,169 thousand by K. Davis, *op. cit.*, p. 198. For earlier years, population assumed to move (with intercensal interpolation) as in prepartition total for Punjab (province, states, etc.). Sind and North West Frontier Province as given for census years by M.W.M. Yeatts, *op. cit.* 1950 onwards as for Bangladesh.

Philippines: 1820-1913 from E. Kirsten, E.W. Buchholtz and W. Köllmann, *Raum und Bevölkerung in der Weltgeschichte*, Ploetz, Würzburg, 1956 (1901-12 and 1914-25 figures are my interpolations); 1926-50 movement from UN, *Demographic Yearbook*, New York, 1960; 1950 onwards as for Bangladesh.

South Korea: 1900-1913 assumed to grow at same pace as Japan. 1913-40 growth for Korea as a whole from Sang-Chul Suh, *Growth and Structural Change in Korean Economy, 1910-1940*, Harvard, 1978, p. 41. 1940 level in South Korea from K.S. Kim and M. Roemer, *Growth and Structural Transformation*, Harvard, 1979, p. 35. 1940-49 from UN *Demographic Yearbook 1960*, p. 142. 1950-60 from OECD Development Centre, 1970 onwards from World Bank, *World Tables*, Washington DC. 1961-9 interpolated.

Taiwan: 1900-49 derived from S.P.S. Ho, *Economic Development of Taiwan, 1860-1970*, Yale, 1978, pp. 313-4 adjusted to a mid-year basis. 1950-68 from national accounts, and 1969 onwards from *Taiwan Statistical Data Book*, Taipei, 1992.

Thailand: 1820-1949 interpolated from figures for 18 benchmark years given in Sompop Manarungsan, "Economic Development of Thailand, 1850-1950", Ph.D. thesis, University of Groningen, 1989, p. 32. 1950-90 as for South Korea.

Africa

Except as otherwise specified the 1950-60 figures are from the OECD Development Centre, and the figures for 1970 onwards are from World Bank sources. The 1960-70 movement was interpolated.

Egypt: 1900 and 1913 derived from D.C. Meade, *Growth and Structural Change in the Egyptian Economy*, Irwin, Illinois, 1967, p. 295. 1950-69 from Summers and Heston (1991). 1970 onwards from World Bank sources. 1951-4, 1956-59, 1961-4, and 1965-9 are interpolations.

Ethiopia: 1950 onwards derived from World Bank, *World Tables*, various issues. Figures for 1951-4, 1956-9, 1961-4 are interpolations.

Ghana: 1900 and 1913 derived from A. Szereszewski, *Structural Changes in the Economy of Ghana, 1891-1911*, Weidenfeld and Nicolson, London, 1965, p. 126.

Nigeria: 1950-92 annual estimates are interpolations from benchmark years as given (in the light of the 1992 census results) in "Le recensement du Nigeria", *Population et Sociétés*, INED, Paris, October 1992.

South Africa: 1900 and 1913 derived from B.R. Mitchell, *International Historical Statistics: Africa and Asia*, Macmillan, London, 1982, p. 41. 1920-49 movement from UN, *Demographic Yearbook*, New York, 1960; 1950-60 from OECD Development Centre; 1960-70 interpolated; 1970 onwards from World Bank, *World Tables*, Washington DC.

Zaire: 1950 onwards from OECD Development Centre.

Other Countries: Estimates for Kenya, Morocco, Nigeria and Tanzania for 1900 and 1913 derived from Statistisches Reichsamt, *Statistisches Handbuch der Weltwirtschaft*, Berlin, 1935. For Côte d'Ivoire the proportionate movement for 1900-50 assumed to be the same as in Ghana, for Ethiopia and Zaire it was assumed to be like that for the other countries combined.

