JORDÀ-SCHULARICK-TAYLOR MACROHISTORY DATABASE

http://www.macrohistory.net/data

JSTDatasetR6

Release 6

July 2022

TERMS OF USE FOR THIS DATASET

This dataset was developed over many years with the generous financial support of the Institute for New Economic Thinking, the Volkswagen Foundation, and the German Federal Ministry of Education Research, and the European Research Council. We also thank our home institutions where we have conducted our research. Consistent with the terms of the support we have received from all of these organizations, our dataset is being made freely available in this noncommercial form.

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"Òscar Jordà, Moritz Schularick, and Alan M. Taylor. 2017. Macrofinancial History and the New Business Cycle Facts. in *NBER Macroeconomics Annual 2016*, volume 31, edited by Martin Eichenbaum and Jonathan A. Parker. Chicago: University of Chicago Press."

However, those using any data pertaining to asset prices or rates of return should cite Òscar Jordà, Katharina Knoll, Dmitry Kuvshinov, Moritz Schularick, and Alan M. Taylor. 2019. “The Rate of Return on Everything, 1870–2015.” *Quarterly Journal of Economics.* Forthcoming.

We advise making explicit reference to the date when the database was consulted, as statistics are subject to revisions.

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VARIABLE NAMES AND DESCRIPTIVE LABELS IN STATA

Variable	Label
year	Year
country	Country
iso	ISO 3-letter code
ifs	IFS 3-number country-code
pop	Population
rgdpmad	Real GDP per capita (PPP, 1990 Int$, Maddison)
rgdbarro	Real GDP per capita (index, 2005=100)
rconsbarro	Real consumption per capita (index, 2006=100)
gdp	GDP (nominal, local currency)
iy	Investment-to-GDP ratio
cpi	Consumer prices (index, 1990=100)
ca	Current account (nominal, local currency)
imports	Imports (nominal, local currency)
exports	Exports (nominal, local currency)
narrowm	Narrow money (nominal, local currency)
money	Broad money (nominal, local currency)
stir	Short-term interest rate (nominal, percent per year)
ltrate	Long-term interest rate (nominal, percent per year)
hpnom	House prices (nominal index, 1990=100)
unemp	Unemployment rate (percent)
wage	Wages (index, 1990= 100)
debtgdp	Public debt-to-GDP ratio
revenue	Government revenues (nominal, local currency)
expenditure	Government expenditure (nominal, local currency)
xrusd	USD exchange rate (local currency/USD)
peg	Peg dummy
peg_strict	Strict peg dummy
crisisJST	Systemic financial crises (0-1 dummy); included since R5
crisisJST_old	Systemic financial crises (0-1 dummy); as coded in all prior releases (R1 – R4)
JSTtrilemmaIV	JST trilemma instrument (raw base rate changes)
tloans	Total loans to non-financial private sector (nominal, local currency)
tmort	Mortgage loans to non-financial private sector (nominal, local currency)
thh	Total loans to households (nominal, local currency)
tbus	Total loans to business (nominal, local currency)
bdebt	Corporate debt (nominal, local currency)
peg_type	Peg type (BASE, PEG, FLOAT)
peg_base	Peg base (GBR, USA, DEU, HYBRID, NA)
eq_tr	Equity total return, nominal. r[t] = [[p[t] + d[t]] / p[t-1]] - 1
housing_tr	Housing total return, nominal. r[t] = [[p[t] + d[t]] / p[t-1]] - 1

bond_tr	Government bond total return, nominal. r[t] = [[p[t] + coupon[t]] / p[t-1]] - 1
bill_rate	Bill rate, nominal. r[t] = coupon[t] / p[t-1]
rent_ipolated	1 if housing rental yields interpolated e.g. wartime
housing_capgain_ipolated	1 if housing capital gains and total returns interpolated e.g. wartime
housing_capgain	Housing capital gain, nominal. cg[t] = [p[t] / p[t-1]] - 1
housing_rent_rtn	Housing rental return. dp_rtn[t] = rent[t]/p[t-1]
housing_rent_yd	Housing rental yield. dp[t] = rent[t]/p[t]
eq_capgain	Equity capital gain, nominal. cg[t] = [p[t] / p[t-1]] - 1
eq_dp	Equity dividend yield. dp[t] = dividend[t]/p[t]
eq_capgain_interp	1 if equity cap. gain interpolated to cover exchange closure
eq_tr_interp	1 if equity total return interpolated to cover exchange closure
eq_dp_interp	1 if equity dividend interpolated or assumed zero to cover exchange closure
bond_rate	Gov. bond rate, rate[t] = coupon[t] / p[t-1], or yield to maturity at t
eq_div_rtn	Equity dividend return. dp_rtn[t] = dividend[t]/p[t-1]
capital_tr	Tot. rtn. on wealth, nominal. Wtd. avg. of housing, equity, bonds and bills
risky_tr	Tot. rtn. on risky assets, nominal. Wtd. avg. of housing and equity
safe_tr	Tot. rtn. on safe assets, nominal. Equally wtd. avg. of bonds and bills
lev	Banks, capital ratio (in %)
ltd	Banks, loans-to-deposits ratio (in %)
noncore	Banks, noncore funding ratio (in %)

AUSTRALIA

(Data in millions AUD)

Macro Data

Population

1870 – 2008 from Angus Maddison Database (2008), Historical statistics of the world economy: 1–2008 AD. Table 1 “Population levels, 1AD–2030AD” (accessible online at http://www.rug.nl/research/ggdc/data/maddison-historical-statistics).

2009 – 2017 growth rates from International Monetary Fund (Aug, 2019), World Economic Outlook. Subject “People – population” (base year: 2008) (accessible at http://www.imf.org/external/data.htm)

2019 – 2020 growth rates from International Monetary Fund (Oct, 2021), World Economic Outlook. Subject “People – population” (base year: 2008) (accessible at http://www.imf.org/external/data.htm)

GDP (millions AUD)

1870-2020 from Diane Hutchinson and Florian Ploeckl, "What Was the Australian GDP or CPI Then?" MeasuringWorth, 2021 URL: http://www.measuringworth.com/australiadata/. Level.

Real GDP per capita (PPP, 1990 Int$, Maddison)

1870 – 2010 from The Maddison-Project, http://www.ggdc.net/maddison/maddison-project/home.htm, 2013 version. http://www.ggdc.net/maddison/maddison-project/home.htm . Level.

2011 – 2020 from International Monetary Fund. World Economic Outlook. Series: Gross domestic product based on purchasing-power-parity (PPP) per capita GDP. Chain-linked.

Real GDP per capita (index, 2005=100)

1870 – 2004 from R. Barro & and J. Ursúa (2010), Macroeconomic Data Set, Harvard University, Cambridge MA (accessible online at http://scholar.harvard.edu/barro/publications/barro–ursua–macroeconomic–data).

2005 – 2020 growth rate calculated from World Bank (2021), Category “Economic policy and external debt,” Series “GDP per capita (constant 2010 US$) (accessible online at http://data.worldbank.org/indicator/NY.GDP.PCAP.KD).

Real consumption per capita (index, 2006=100)

1870 – 1900 from Australians Historical Statistics, 2007. Vamplew, W (Editor). Chapter 12: Prices and Consumption. Table 182 - 183: Social Accounting Indicators of Living Standards, Constant Prices, Australia 1818-1982. Chain linked (assuming the 1901 per capita consumption growth rate equalled the per capita real GDP growth rate in order to link the 1870 – 1900 and the 1900 – 2009 series).

1901 – 2009 from Robert C. Barro and José F. Ursúa (2010), Macroeconomic Data Set, Harvard University, Cambridge MA (accessible online at http://scholar.harvard.edu/barro/publications/barro–ursua–macroeconomic–data).

2010 – 2020 from World Bank household final consumption expenditure per capita (constant 2010 US$). Chain linked.

Investment-to-GDP ratio

1870 – 1946 Pre–WWII data Mitchell, Brian (2007), International Historical Statistics: Africa, Asia & Oceania, 1750 – 2005, Palgrave Macmillan, London.

1949 – 1959 from International Monetary Fund (2013), International Financial Statistics. Data Report "Economic indicators", Series "Gross Fixed Capital Formation, Nominal" (accessible online at https://data.imf.org/).

1960 – 2001 from Kamps, Christophe. Database on Capital Stocks in OECD countries. Series: Gross total fixed capital formation (1995 prices) divided by GDP (1995 prices). Underlying source: OECD analytical database. https://www.ifw-kiel.de/academy/databases/netcap_e

2002 – 2020 from International Monetary Fund, International Financial Statistics. Data Report "Economic indicators", Series "Gross Fixed Capital Formation, Nominal" (accessible online at https://data.imf.org/).

Consumer prices (index, 1990=100)

1870 – 1996 from A. Taylor (2002), A Century of Purchasing–Power Parity, Review of Economics and Statistics, vol 84(1), pp. 139–150.

1997 – 2020 from International Monetary Fund World Economic Outlook (April 2019). Series "Inflation, average consumer prices" (accessible online at https://www.imf.org/external/pubs/ft/weo/2019/01/weodata/index.aspx). Chainlinked.

Narrow Money (millions AUD)

1870 – 1983 PF 57–71 from David Pope, Australian Money and Banking Statistics, Canberra, Australian National University, 1986

1984 – 2002 continuation of previous series with growth rates calculated from International Monetary Fund, International Financial Statistics. M1, seasonally adjusted (available at IMF CD-ROM 2014: Economic Concept View – Financial Indicators – Monetary Aggregates)

2003 – 2020 continuation of previous series with growth rates calculated Reserve Bank of Australia, Statistical Tables, Money and credit statisitcs, monetary aggregates, M1: seasonally adjusted, december values.

Broad Money (millions AUD)

1870 – 1978 PF 57–71 from David Pope, Australian Money and Banking Statistics, Canberra, Australian National University, 1986

1979 – 2013 from International Monetary Fund, eLibrary. International Financial Statistics. Monetary Aggregates - M3.

2013 – 2020 Reserve Bank of Australia, Statistical Tables, Money and credit statisitcs, monetary aggregates, M3: original, december values.

Short–term interest rate (nominal, percent per year)

1870 – 1914 from Pope, D. 1986. Australian Money and Banking Statistics. Table 7: Interest Rates, Savings Banks Deposits. Online: www.se.anu.edu.au

1915 – 1928 from Butlin, S. (1971). Australian banking and monetary statistics 1817-1945. P.535 Table 63(ii). Savings Banks maximum interest rates and limits on deposits earning interest 1901-1945. Average of seven rates.

1929 – 1944 from League of Nations, International Statistical Yearbook (various issues), League of Nations, Geneva. Average annual rate.

1948–1968 from International Monetary Fund (2016), International Financial Statistics database (IFS). Section "Economic indicators", Series "Interest Rates – Government Securities – Bonds short term" (accessible online at http://data.imf.org/).

1969 – 2001 from International Monetary Fund (2018), International Financial Statistics database (IFS). Section "Economic indicators", Series "Interest Rates – Government Securities – Treasury Bill Rate" (accessible online at http://data.imf.org/).

2002 – 2019 from International Monetary Fund (2021), International Financial Statistics database (IFS). Section "Economic indicators", Series "Interest Rates – Money Market Rate percent per anum" (accessible online at http://data.imf.org/).

2019 – 2020 from Reserve Bank of Australia, Interest rates, F1.1 INTEREST RATES AND YIELDS – MONEY MARKET, average of cash rate target (accessible online at: https://www.rba.gov.au/statistics/tables/).

Long–term interest rate (nominal, percent per year)

1870 – 1914 sum of "Yield on consols" (from Bank of England, Three centuries of macroeconomic data, Series: Yield on consols) and "Spread on consols" (from Clemens, M. A. and Williamson, J. G. (2004). Wealth bias in the first global capital market boom, 1870–1913. The Economic Journal.)

1915 – 1925 from Lamberton, D. M. L. (1958). Some statistics of security prices and yields in the Sydney market, 1875-1933. Table III. Average annual rate.

1926 – 1934 from League of Nations, International Statistical Yearbook (various issues), League of Nations, Geneva.

1935 – 1947 from Homer, S. and R. Sylla (2005). A History of Interest Rates, Fourth Edition. Wiley Finance. Average annual rate.

1948 – 2016 from International Monetary Fund International Financial Statistics (IFS). Data reports "Economic indicators (IFS)", Section "Interest rates", Series "Government Bonds, percent per anum" (accessible online at https://data.imf.org)

2017 – 2020: OECD (2020). OECD iLibrary. Long-term interest rates doi: 10.1787/662d712c-en, average of monthly values.

Current Account (millions AUD)

1870 – 1945 from M. Jones & M. Obstfeld (1997), Saving, Investment, and Gold: A Reassessment of Historical Current Account Data, NBER Working Paper No. 6103, MIT Press, Cambridge MA (accessible online at http://www.nber.org/databases/jones-obstfeld/). Sum of CA excl. gold flows + net exports gold + change in monetary gold stock (see paper for derivation of this equation). Level.

1946 – 1979 from B. Mitchell (2013) International Historical Statistics. National Accounts - Balance of payments - overall current balance. Level.

1980 – 2020 International Monetary Fund, World Economic Outlook. % of GDP * nominal GDP from JST dataset = Current Account (accessible online: http://www.imf.org/external)

Imports & Exports (millions AUD)

1870 – 1913 from B. Mitchell (2007), International Historical Statistics: Africa, Asia & Oceania 1750 – 2005, Pallgrave MacMillen, London.

1915 – 1947 from B. Mitchell (2007), International Historical Statistics: Africa, Asia & Oceania 1750 – 2005, Pallgrave MacMillen, London.

1948 – 2020 from International Monetary Fund, International Financial Statistics: archive, M10 2021, External Trade, Goods, Value of Exports, Free on Board (FOB), Domestic Currency; External trade, Imports, Goods, Value, Cost, Insurance freight, Domestic Currency.

Government Revenues (millions AUD)

1902 – 1948 Liesner, T. (1989). One hundred years of economic statistics. Table A9 Public Finance. Series: Total receipts.

1949 – 1996 from Australian Bureau of Statistics: Statistical Yearbook of Australia, various issues.

1997 – 2013 from Reserve Bank of Australia (2013), Discontinued data – Government finance - “E1 Australian Government Budget”, Total revenues (data series is accessible online at http://www.rba.gov.au/statistics/tables/). June values (fiscal year)

2014 - 2020 from Australian Bureau of Statistics. 5512.0 Government Finance Statistics. Commonwealth Government. GFS Revenue

Government Expenditure (millions AUD)

1902 – 1948 from Liesner, T. (1989). One hundred years of economic statistics. Table A9 Public Finance. Series: Total expenditure

1949 – 1996 from Australian Bureau of Statistics: Statistical Yearbook of Australia, various issues. (For early years, expenditure is the combined expenditure of the Commonwealth Revenue Fund and the Loan Fund)

1997 – 2013 from Reserve Bank of Australia, File “E1 Australian Government Budget”, Total expenses (data series is accessible online at http://www.rba.gov.au/statistics/tables/).

2014 - 2020 from Australian Bureau of Statistics. 5512.0 Government Finance Statistics. Commonwealth Government. GFS Expenses

Public debt-to-GDP ratio

1870-1994 from Mauro, Paolo, Rafael Romeu, Ari Binder, Asad Zaman (2013), “A Modern History of Fiscal Prudence and Profligacy”, IMF Working Paper No. 13/5.

1995-2020 from IMF. World Economic Outlook. 2021. Series: Public Debt % of GDP.

USD exchange rate (local currency/USD)

1870 – 1879 from Australian Historical Statistics. Editor: Vamplew, W. Fairfax, Syme & Weldon Associates. Pp. 243-244. Inverse of GBP/AUD exchange rate multiplied with GBP/USD exchange rate (see USD exchange rate sources for the U.K.).

1880 – 1938 from Bordo, Michael D., Barry Eichengreen, Daniela Klingebiel, and Maria Soledad Martinez–Peria. 2001. “Is the Crisis Problem Growing More Severe?” Economic policy: A European Forum 32: 51–75.

1939 – 1947 from Australian Historical Statistics. Editor: Vamplew, W. Fairfax, Syme & Weldon Associates. Pp. 243-244. Inverse of GBP/AUD exchange rate multiplied with GBP/USD exchange rate (see USD exchange rate sources for the U.K.).

1948 – 2020 from International Financial Statistics. IMF eLibrary. Nominal Exchange Rate “Exchange Rates, National Currency Per U.S. Dollar, End of Period, Rate”.

Peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1-2, all 3-6=0); broad peg category including crawling pegs.

2008 – 2020 extension of of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1-2, all 3-6=0); broad peg category including crawling pegs.

Strict peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1, all 2-6=0); strict peg category excluding crawling pegs.

2008 – 2020 extension of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1, all 2-6=0); strict peg category excluding crawling pegs.

Exogenous monetary policy shocks

Exogenous variation in the short-term interest rate from Òscar Jordà, Moritz Schularick, Alan M. Taylor and Felix Ward, 2019. “Global financial cycles and risk premiums”. IMF Economic Review, Volume 67 Number 1, pp. 109-150, which uses the identification strategy using local projection with instrumental variables laid out in Òscar Jordà, Moritz Schularick and Alan M. Taylor, 2020. “The effects of quasi-random monetary experiments”. Journal of Monetary Economics 112: 22-40.

House prices (nominal index, 1990=100)

1870 – 2012 from Knoll et al. (2014). No price like home: Global house prices, 1870-2012. Year average values.

2013 – 2020 from OECD housing prices database. Nominal series. Chain-linked.

Unemployment rate (percent)

1901 – 1980 from Mitchell, Brian (2013), International Historical Statistics Africa, Asia, Oceania, 1750 – 2010, Table B2 Oceania Unemployment, Palgrave Macmillan, London.

1981 – 2020 from ILOSTAT (2021), Table “Unemployment rate by sex and age” based on the Labour force survey (LFS) accessible online at https//ilostat.ilo.org/data/.

Wages (index, 1990=100)

1870 – 2020 Diane Hutchinson and Florian Ploeckl, “Weekly Wages, Average Compensation and Minimum Wage for Australia from 1861-Present” MeasuringWorth, 2021. Average weekly earnings, all employees (pounds and dollars). Levels. Accessible online at https://www.measuringworth.com/datasets/auswages/

Credit Data (millions AUD)

Total loans to non-financial private sector

1870 – 1945 calculated from S.J. Butlin, A.R. Hall, & R.C. White (1971), Australian Banking and Monetary Statistics 1817–1945, Reserve Bank of Australia, Sydney. Calculated by adding Table 1 “Total assets within Australia and total advances in Australia” and Table 53(i) “Savings banks, aggregate balance sheet”, Series “Mortgage loans".

1948 – 1952 growth rate calculated from International Monetary Fund, International Financial Statistics, series 32d “Claims on private sector”.

1953 – 1988 from Reserve Bank of Australia (2012), Australian Economic Statistics 1949–1950 to 1996 – 1997, Reserve Bank of Australia. Table 3.2 “Lending and credit aggregates”, Series “Loans and advances by financial intermediaries – banks” (accessible online at http://www.rba.gov.au/statistics/frequency/occ–paper–8.html#section_3).

1989 – 2020 sum of Total Loans to Households and Total Loans to Business.

Mortgage loans to non-financial private sector

1870 – 1945 calculated from S.J. Butlin, A.R. Hall, & R.C. White (1971), ibid. Table 53(i) "Savings banks, aggregate balance sheet".

1952 – 2020 equal to Mortgage Loans to Households.

Total Loans to Households

1952 –2020 sum of Mortgage Loans to Households and Total Other Loans to Households.

Mortgage Loans to Households

1952 – 1975 growth rate calculated from calculated from Australian Bureau of Statistics (various), Statistical Yearbook (various issues). Series "Housing loans from savings bank"; and Reserve Bank of Australia (2012), ibid. Table 3.7.b "All banks: assets", Series "Loans, advances and bills held (b) of which: housing loans" (accessible online see above).

1976 – 2012 from Reserve Bank of Australia; Table: Banks – On–balance Sheet Assets, Liabilities and Off–balance Sheet Business – B2; Series: BBARALAP "Resident Assets – Loans & Advances – Residential", (accessible online at http://www.rba.gov.au/statistics/tables/index.html#historical).

2013 – 2018 Monthly Authorised Deposit-taking Institution Statistics; Monthly Banking Statistics June 2019 back series : Table 1 Sum of "Loans to households: Housing: Owner-occupied" and "Loans to households: Housing: Investment" (TOTAL end of period values) (accessible online at https://www.apra.gov.au/monthly-authorised-deposit-taking-institution-statistics).

2019 – 2020 Monthly Authorised Deposit-taking Institution Statistics; Monthly Banking Statistics back-series March 2019 – February 2022: Table 1 Sum of "Loans to households: Housing: Owner-occupied" and "Loans to households: Housing: Investment" (TOTAL end of period values) (accessible online at https://www.apra.gov.au/monthly-authorised-deposit-taking-institution-statistics).

Total Other Loans to Households

1952 – 1975 Australian Bureau of Statistics, Statistical Yearbook (various), Australian Bureau of Statistics. "Advances for persons excluding housing – trading banks only" (accessible online at http://www.abs.gov.au/).

1976 – 2012 from Reserve Bank of Australia; Table: Banks – On–balance Sheet Assets, Liabilities and Off–balance Sheet Business – B2; Series: BBARALAP "Resident Assets – Loans & Advances – Personal", (accessible online at http://www.rba.gov.au/statistics/tables/index.html#historical).

2013 – 2020 Australian Prudential Regulation Authority; Monthly Banking Statistics: Table 2 Loans and advances on Australian books of individual banks – Households: sum of "Credit cards" and "Other" (TOTAL) (accessible online at http://www.apra.gov.au/adi/Publications/Pages/monthly–banking–statistics.aspx).

Total Loans to Business

1952 – 1988 residual of Total loans to non-financial private sector and Total Loans to Households

1989 – 2012 from Reserve Bank of Australia; Table: Banks – On–balance Sheet Assets, Liabilities and Off–balance Sheet Business – B2; Series: BBARALAP "Resident Assets – Loans & Advances – Commercial", (accessible online at http://www.rba.gov.au/statistics/tables/index.html#historical).

2013 – 2017 Australian Prudential Regulation Authority; Monthly Banking Statistics: Table 1 Monthly banking statistics back series sum of Loans to : "Non–financial corporations", "Financial corporations", "General government", "Community service organisations and NPI" and "Intra–group loans and advances" (TOTAL end of period values) (accessible online at https://www.apra.gov.au/monthly-authorised-deposit-taking-institution-statistics). Note: this sum is gross of specific and general provisions for bad debts, while the 1989–2012 RBA series was a net value. The inclusion of loans other than to non–financial corporations is for reasons of series consistency across time.)

2018 – 2020 Australian Prudential Regulation Authority; Monthly authorised deposit-taking institutions statistics back series: Table 1 Monthly authorised deposit-taking institution statistics back series: sum of Loans to "Non–financial business", "Financial institutions", "General government", "Community services organisation" and "Intra–group loans and finance advances" (TOTAL end of period values) (accessible online at https://www.apra.gov.au/monthly-authorised-deposit-taking-institution-statistics).

Corporate debt

1948–1954 lending to non-financial corporate business from Karsten Muller (¨ 2018) "Credit Markets around the World, 1910–2014", from SSRN (accessible online at https://ssrn.com/ abstract=3259636).

1955–1976 residual of total bank loans to non-financial private sector and total bank loans to households (both from JST MacroHistory Database).

1977–1988 bank loans to business and capital market debt from "Credit to the non-financial sector" database of the Bank of International Settlements (accessible online at https: //www.bis.org/statistics/totcredit.htm).

1989–2013 total non-equity liabilities of the private non-financial business sector from OECD financial accounts data.

2014–2020 bank loans to business and capital market debt from "Credit to the non-financial sector" database of the Bank of International Settlements (accessible online at https: //www.bis.org/statistics/totcredit.htm).

Bank balance sheet ratio

(Ratios in %, underlying data in millions AUD)

Capital ratio

Capital ratio = Capital / Total Assets

Total Assets (millions AUD)

1870-1945 Butlin, Hall and White, Australian banking and monetary statistics, 1817-1945, Reserve Bank of Australia (1971), Part B, Table 2(i) and 2(ii) Aggregate Trading Banks, Series "Total Capital and Liabilities" (chainlinked with Table 1, series "Assets in Australia" for years 1870-1876) + Table 53 (i) Aggregate Saving Banks, Series - "Total Assets". June or December values depending on availability. Levels.

1950-1953 Reserve Bank of Australia, Discontinued Data, "Table 3.8 Trading Banks: Deposit Liabilities and Selected Assets (a)", series - "Total Assets" + Table 3.9 "Saving Banks: Deposit Liabilities and Selected Assets (a)", series – "Total Assets" (1950-1952 chainlinked with Series - "Public Sector Securities" growth rates), accessible online (http://www.rba.gov.au/statistics/discontinued-data.html). Chainlinked.

1954-1996 Reserve Bank of Australia, Discontinued Data, "Table 3.4a Total Assets of Financial Institutions", series "Total - Banks other than Reserve Bank", accessible online (http://www.rba.gov.au/statistics/discontinued-data.html). June values. Chainlinked.

1997-2020 Reserve Bank of Australia, Statistical Tables, "Table B1- Assets of Financial Institutions", Series "Assets; Banks", series key BAFITADI, June values. Levels.

Capital (millions AUD)

1870-1945 Butlin, Hall and White, Australian banking and monetary statistics, 1817-1945, Reserve Bank of Australia (1971), Part B, Table 2(i) and 2(ii) Aggregate Trading Banks, series "Shareholder's equity" + Table 53(i) Aggregate Savings Banks, series "Reserves and Undivided Profits". June or December values. Levels.

1951-1962 White, R.C., Australian Banking and Monetary Statistics 1945–1970, (1973), Occasional Papers 4B, series "Capital"+"Reserves" divided by "Total liabilities" for Trading Banks. Savings Banks capital ratio chainlinked from 1963 value with trading banks capital ratio changes. Chainlinked as capital ratio. Resulting capital ratio multiplied with Total Assets series to compute Capital.

1963-1980 Australian Statistical Yearbooks, various issues, All Trading Banks (Cheque Paying Banks Grand Total or Private Trading Banks), series "Total Shareholder Funds" divided by "Total Liabilities"+ Total Savings Banks, series "Shareholder's Funds" divided by "Total Liabilities". Chainlinked as capital ratio. Resulting capital ratio multiplied with Total Assets series to compute Capital.

1981-1988 OECD, Bank Profitability, Statistical Supplement, Financial Statements of Banks, capital ratio computed as "Capital and Reserves" divided by "Total Assets" end of year values.

Chainlinked as capital ratio. Resulting capital ratio multiplied with Total Assets series to compute Capital.

1989 Reserve Bank of Australia, Capital ratio from Table B6 – Consolidated Group Capital of Banks “Tier 1 Ratio”, Chainlinked capital ratio. Resulting capital ratio multiplied with Total Assets series to compute Capital.

1990-2003 OECD, Bank Profitability, Statistical Supplement, Financial Statements of Banks, capital ratio computed as (“Tier 1 Capital” less “Supervisory Reductions) divided by “Total Assets” from OECD series, end of year values. Resulting capital ratio multiplied with Total Assets series to compute Capital.

2004-2020 from Australian Prudential Regulation Authority, Quarterly ADI Performance Statistics “Eligible Tier 1 Capital” (Basel II) or “Total Tier 1 Capital” (Basel III) divided by “Total Assets”, Series for Major banks (sheet 4b and 4c)+ Other domestic banks (sheet 5b and 6c), December values. Resulting capital ratio multiplied with Total Assets series to compute Capital.

Loans-to-Deposits ratio

Loans-to-Deposits ratio = Loans / Deposits

Deposits (millions AUD)

1870-1945 Butlin, Hall and White, Australian banking and monetary statistics, 1817-1945, Reserve Bank of Australia (1971), Part B, Table 1 Aggregate Trading Banks, Series “Total Deposits” + Table 53 (i) Aggregate Saving Banks, Series - “Deposits”. Levels.

1950-1996 Reserve Bank of Australia, Discontinued Data, “Table 3.1”, Series “Total Bank Deposits”. Chainlinked.

1997-2012 Reserve Bank of Australia, Statistical Tables, Discontinued Data, Table “Banks – On-balance Sheet Assets, Liabilities and Off-balance Sheet Business – B2 “, Series Resident Liabilities Deposits, http://www.rba.gov.au/statistics/tables/. Levels.

2013-2017 Reserve Bank of Australia, Statistical Tables, Table D3 Moneary Aggregates, “Current deposits with banks + Certificates of deposit issued by banks + Term deposits with banks +Other deposits with banks + Deposits with non-bank ADIs” (DMACDB+ DMAODCD+ DMAODTEC+ DMAODO+ DMADNA), http://www.rba.gov.au/statistics/tables/. Chainlinked.

2018-2020 Reserve Bank of Australia, Statistical Tables, Table D3 Moneary Aggregates, “Transaction Deposits with ADIs + Certificates of deposit issued by ADIs+ Non-Transaction Deposits with ADIs” (DMATD+ DMAODCD+ DMANTD), http://www.rba.gov.au/statistics/tables/. Chainlinked.

Loans (millions AUD)

1870-1945 Butlin, Hall and White, Australian banking and monetary statistics, 1817-1945, Reserve Bank of Australia (1971), Part B, Table 1 Aggregate Trading Banks, Series “Advances and other assets” + Table 53 (i) Aggregate Saving Banks, Series - “Mortgage Loans”. June or December values depending on availability, levels.

1950-1974 Reserve Bank of Australia, Discontinued Data, “Table 3.8” Trading Banks: Deposit Liabilities and Selected Assets (a), Series “Loans, Advances and bills discounted”, Reserve Bank of Australia + Reserve Bank of Australia, Discontinued Data, “Table 3.9” Saving Banks; series “Loans, Advances and bills discounted – Total (estimated based on growth rate of other asset items between 1950 and 1955)”, chainlinked.

1975-1996, Reserve Bank of Australia, Discontinued Data, “Table 3.7a”, accessible online (http://www.rba.gov.au/statistics/discontinued-data.html), chainlinked.

1997-2012 Reserve Bank of Australia, Statistical Tables, Discontinued Data, Table “Banks – On-balance Sheet Assets, Liabilities and Off-balance Sheet Business – B2 “, assetsb02, Loans and advances, series “Residential”+”Personal”+”Commercial”, levels.

2013-2020 Reserve Bank of Australia, Statistical Tables, Table D2 Lending and credit Aggregates, “Loans and advances; AFIs – Excludes securitisations – For series breaks see Series Breaks”, http://www.rba.gov.au/statistics/tables/, chainlinked.

Noncore ratio

Noncore ratio = (Total Assets – Capital - Deposits) / (Total Assets - Capital)

BELGIUM

(Data in millions BEF)

Macro Data

Population

1870 – 1952 from Angus Maddison Database (2008), ibid. Table 1 “Population levels, 1AD–2030AD” (accessible online at http://www.ggdc.net/maddison/Historical_Statistics/horizontal–file_02–2010.xls).

1953 – 2011 from Bank of Belgium (2012). Table “Total population (thousands, end of year)”, Series “Total” (accessible online at http://www.nbb.be/pub/stats/stats.htm?l=en&tab=Figures).

2012 – 2017 growth rates from International Monetary Fund (Aug 2019), World Economic Outlook. Subject “People – population” (base year: 2011) (accessible at www.imf.org).

2018 – 2020 growth rates from International Monetary Fund (Oct 2021), World Economic Outlook. Subject “People – population” (base year: 2011) (accessible at www.imf.org).

GDP (converted to millions BEF)

1870 – 1952 from Groningen Growth and Development Centre (2009), Historical National Accounts Database, University of Groningen, Groningen. Table “Belgium, value added at market prices in current price”, Series “Total GDP” (accessible online at http://www.ggdc.nl/databases/hna/2009/data/hna_bel_09.xls). Gaps: 1914 - 1919 & 1940 - 1947.

1914 – 1919 & 1940 – 1947 Bordo, Michael D., Barry Eichengreen, Daniela Klingebiel, and Maria Soledad Martinez–Peria. 2001. “Is the Crisis Problem Growing More Severe?” Economic policy: A European Forum 32: 51–75.

1953 – 2020 from International Financial Statistics. Data Report “Economic indicators”, Series “Gross domestic product (in millions) – GDP nominal” (accessible online at http://data.imf.org//).

Real GDP per capita (PPP, 1990 Int$, Maddison)

1870 – 2010 from The Maddison-Project, http://www.ggdc.net/maddison/maddison-project/home.htm, 2013 version. http://www.ggdc.net/maddison/maddison-project/home.htm . Level.

2011 – 2020 from International Monetary Fund. World Economic Outlook. Series: Gross domestic product based on purchasing-power-parity (PPP) per capita GDP. Chain-linked.

Real GDP per capita (index, 2005=100)

1870– 2004 from R. Barro & and J. Ursúa (2010), Macroeconomic Data Set, Harvard University, Cambridge MA (code: CPCINXBE) (accessible online at http://scholar.harvard.edu/barro/publications/barro–ursua–macroeconomic–data).

2005 – 2020 growth rate calculated from World Bank (2021), Category “Economic policy and external debt,” Series “GDP per capita (constant 2010 US$) (accessible online at http://data.worldbank.org/indicator/NY.GDP.PCAP.KD).

Real consumption per capita (index, 2006=100)

1913 – 2009 from Robert C. Barro and José F. Ursúa (2010), Barro–Ursúa Macroeconomic Data. For respective sources see original data set: http://rbarro.com/data–sets/.

2010 – 2020 from World Bank household final consumption expenditure per capita (constant 2010 US$). Chain linked.

Investment-to-GDP ratio

1900 – 1913 calculated from van Meerten, Michelangelo (2003), Capital Formation in Belgium 1900–1990, Leuven University Press. Series “Gross Fixed Asset Formation” (private sector, incl. dwellings) (p.383) Table: Annex C.1. Column 22, and series “Value of the Physical Change in Stocks“ (private sector) Table: Annes E.1. Column 20, divided by nominal GDP series from JST dataset.

1920 – 1952 from van Meerten, Michelangelo (2003), ibid. Series “Investment ratio” (note: no data for 1940, 1942, 1944, and 1945).

1953–2014 data from International Monetary Fund (2015), International Financial Statistics. Data Report “Economic indicators”, Series “Gross Fixed Capital Formation, Nominal” (accessible online at https://data.imf.org/).

Formerly: 1953 – 1979 from National Bank of Belgium (2012), Belgostat. Table “Comptabilité nationale, système traditionnel – Revenu national et dépenses de la nation (estimations à prix courants)”, closed series “National Accounts, Système traditionnel – source INS (1953–1991), Estimations à Prix Courants, Comptabilité Nationale, Optique Répartition, Comptes Nationaux, Compte 1–Revenu national et dépenses de la nation”; calculation: [Gross fixed capital formation (total) + Change in inventories] / NGDP (accessible online at http://www.nbb.be/pub/stats/stats.htm?l=en&tab=Figures).

1980 – 2020 from National Bank of Belgium, Belgostat. Table “Main categories of expenditure, estimates at current prices”, closed series “National Accounts, Quarterly Data and Annual Accounts, ESA95, Gross Data, GDP Identity from the Expenditure Side, Main Categories of Expenditures, Current Prices”; Calculation: [Gross fixed capital formation (total) + Change in inventories] / NGDP (accessible online at http://www.nbb.be/pub/stats/stats.htm?l=en&tab=Figures).]

Consumer prices (index, 1990=100)

1870 – 2007 from National Bank of Belgium Services Statistiques Financières et Économiques (2012), Table “Indice des prix à la Consommation en Belgique”, received from Daisy Dillens (National Bank of Belgium). (Note: gaps for 1915 - 1919; 1940 – 1945)

1915-1919 and 1940 – 1945 from Jan Annaert, Frans Buelens, Ludo Cuyvers, Marc De Ceuster, Marc Deloof and Ann De Schepper (2011). Are blue chip stock market indices good proxies for all-shares market indices? The case of the Brussels Stock Exchange 1833–2005. Financial History Review, 18, pp. 277-308 doi:10.1017/ S0968565011000187. Implicit CPI calculated from nominal and real all shares indices from Table 1: All shares index, Capital gain (CG). Chainlinked.

2008 – 2020 from International Monetary Fund World Economic Outlook (April 2019). Series “Inflation, average consumer prices” (accessible online at https://www.imf.org/external/pubs/ft/weo/2019/01/weodata/index.aspx). Chainlinked.

Narrow Money (converted to millions BEF)

1877 – 1940 from Delbeke, Jos (1988), Geld en bankkrediet in België, 1877–1983, AWLSK, Brussels. Table 1.3. (Note: no data for 1914 – 1919)

1947 – 1978 growth rate calculated from Delbeke, Jos (1988), ibid. Table 1.2.

1979 – 1995 growth rate calculated from National Bank of Belgium (2012), Belgostat. Table “Monetary aggregates (millions of Euros 1979–1998)”, series M1 (see Data Source folder for excel file).

1996 – 2001 from National Bank of Belgium (2012), Belgostat. Table “Belgian contribution to the monetary aggregates of the Eurozone (until December 2001)”, Series “Overnight deposits” (accessible online at http://www.nbb.be/pub/stats/stats.htm?l=en&tab=Figures).

2002 – 2020 from National Bank of Belgium (2021), Belgostat. Table “other financial statistics, Monetary aggregates, M1, overnight deposits (belgian contribution to monetary aggregates of the euro area).

Broad Money (converted to millions BEF)

1979 – 1995 from National Bank of Belgium (2012), Belgostat Online. Table “Monetary aggregates (1979 – 1998) Monetary aggregates (1979–1998), Series “M3” (Series “M1” + Series “ Other assets at up to one year with credit institutions”) (see Data Source folder for excel file).

1996 – 2001 from National Bank of Belgium (2012), Belgostat Online. Table “Belgian contribution to the monetary aggregates of the Eurozone (until December 2001)”, (accessible online at http://www.nbb.be/pub/stats/stats.htm?l=en&tab=Figures).

2002 – 2020 from National Bank of Belgium (2019), Belgostat. Table “other financial statistics, Monetary aggregates, M3 excluding currency in circulation (belgian contribution to monetary aggregates of the euro area).”

Short–term interest rate (nominal, percent per year)

1870 – 1912 from series from J.M. Drappier publication received from Willy Biesemann, (Data shop, National Bank of Belgium) (2012). The short–term interest rate is defined as the discount rate of Société Générale up to 1850, discount rate of the National Bank from 1851 to 1964, and the interest rate on three–month Treasury certificates after that.

1913 – 1914 from Neal, Larry D., and Marc D. Weidenmier. "Crises in the global economy from tulips to today." Globalization in historical perspective. University Of Chicago Press, 2003. 473-514. Open Market Rate, Monthly, End of Year Value. (accessible online at http://ebutts05.tripod.com/nealweidenmiergsd/)

1920 – 2014 from series from J.M. Drappier publication received from Willy Biesemann, (Data shop, National Bank of Belgium) (2012). The short–term interest rate is defined as the discount rate of Société Générale up to 1850, discount rate of the National Bank from 1851 to 1964, and the interest rate on three–month Treasury certificates after that. (Note: no data for 1915 – 1919)

1991 – 2020 Belgostat, Financial markets - Interest rates – Treasury certificates – 3 months – annual frquency (https://stat.nbb.be/Index.aspx)

Long–term interest rate (nominal, percent per year)

1870 – 1985 from series from J.M. Drappier publication received from Willy Biesemann, (Data shop, National Bank of Belgium) (2012). The long–term interest rate is defined as the yield rate of the active debt (perpetual–maturity government bond) of 2.5 p.c. until 1912, and the yield on the government debt at six years and over from 1920 onwards. (Note: no data for 1913 – 1919)

1986 – 2016 International Monetary Fund (2019). International financial statistics. Interest Rates, Government bond yield. 10-year government bond yield.

2017 – 2020: OECD (2020). OECD iLibrary. Long-term interest rates doi: 10.1787/662d712c-en, average of monthly values.

Current Account (converted to millions BEF)

1870 – 1946, 1949, 1952 & 1953 from B. Mitchell (1980), European Historical Statistics 1750–1975 (second revised edition), Facts on File, New York. Table F1 "External trade aggregate current value", p507. The current account balance is set equal to the trade balance for all of the above values (see Import & Export for respective years). (Note: no data for 1914 – 1918)

1947 – 1979 from National Bank of Belgium (various), Annual Reports (various issues), Series relating to total balance of payments – name may vary between reports (accessible online at http://www.nbb.be/pub/06_00_00_00_00/06_02_00_00_00/06_02_06_00_00.htm?l=en).

1980 – 1996 from International Monetary Fund (2015), World Economic Outlook Database April 2012. Series "Balance of payments: Current account balance % of GDP, multiplied with GDP from JST dataset" (accessible online at http://www.imf.org/external/pubs/ft/weo/2012/01/weodata/index.aspx).

1997 – 2020 from National Bank of Belgium, Belgostat Online. Table "Balance of payments: Current account of Belgium: detailed presentation – net", Series "Total of the current account" (accessible online at http://www.nbb.be/pub/stats/stats.htm?l=en&tab=Figures)

Import & Export (converted to millions BEF)

1870 – 1913, 1919 – 1939 & 1946 – 1949 from Horlings (2002), "The International Trade of a Small and Open Economy. Revised Estimates of the Imports and Exports of Belgium, 1835-1990", NEHA-Jaarboek 65, 110-142.

1950 – 1997 from International Monetary Fund, International Financial Statistics. Series "Goods, values of imports" and series "Goods, values of exports" for Belgium & Luxembourg (accessible online at http://data.imf.org/).

1998 – 2020 from International Monetary Fund, International Financial Statistics. Archive, 2021 M10, External trade, imports, goods, value, cost, insurance freight, Domestic Currency; External Trade, Goods, Value of Exports, Free on Board (FOB), Domestic Currency (accessible online at https://data.imf.org/).

Government Revenues (converted to millions BEF)

1870 – 1982 from B. Mitchell (1980), ibid. Table H5 "Government revenue and main tax yield", p. 745. Level. (Note: no data for 1913-1919).

1983-1984 geometric interpolation

1985 – 2009 from OECD Statistics. Annual national accounts SNA93. General Government accounts SNA93. Table 12: Government deficit/surplus, revenue, expenditure and main aggregates - Total government revenue (accessible online at http://stats.oecd.org). Level.

2010-2020 from OECD Statistics. Annual national accounts. General Government accounts. Table 12: Government deficit/surplus, revenue, expenditure and main aggregates. Level.

Government Expenditure (converted to millions BEF)

1870 – 1985 from B. Mitchell (1980), ibid. Table H4 “Total central government expenditure (in millions)”, p. 734 (Note: no data available for 1940). Level. (Note: no data for 1913-1919).

1986 – 2020 from OECD Statistics. Annual national accounts SNA93. General Government accounts SNA93. Table 12: Government deficit/surplus, revenue, expenditure and main aggregates - Total government expenditure (accessible online at http://stats.oecd.org). Level.

Public debt-to-GDP ratio

1870 – 1913 from Belgostat, 2012, “Official debt and net financial balance of the Treasury, total” (series sent by email, contact person is Willy Biesemann). Note: The data series provided stated only a debt–to–GDP ratio; this ratio has been multiplied with the nominal GDP series of this dataset to yield a value for the nominal public debt series.

1920 – 1968 from Belgostat, 2012, “Official debt and net financial balance of the Treasury, total” (series sent by email, contact person is Willy Biesemann). Note: The original data series expressed a debt–to–GDP ratio only; this ratio has been multiplied with the nominal GDP series of this dataset to yield a value for the nominal public debt series. (Note: no data for 1940 – 1945)

1969 – 2020 from European Commission, Economic and Financial Affairs, AMECO database, Chapter 18 Gross Public Debt.18.2 – Based on ESA 2010 and former definitions. Gross Public Debt (linked series) (UDGGL). Percentage of GDP at market prices (excessive deficit procedure) (data accessible online at http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm).

USD exchange rate (local currency/USD)

1870 - 1880 from Denzel M. A. & Schwarzer, O. (1991). Währungen der Welt I. Euopäische und Nordamerikanische Devisenkurse, 1777-1914. Teilband II. P.237: Belgische Bankplätze, lange sicht. Old franc/100 belgian francs*100*New French Franc / US Dollar

1881 – 1919 Bordo, Michael D., Barry Eichengreen, Daniela Klingebiel, and Maria Soledad Martinez–Peria. 2001. “Is the Crisis Problem Growing More Severe?” Economic policy: A European Forum 32: 51–75.

1920 – 1939 Lawrence H. Officer, "Exchange Rates Between the United States Dollar and Forty-one Currencies,", MeasuringWorth, 2015.
http://www.measuringworth.com/exchangeglobal/
1940 – 1945 from Bordo, M. D. & Jonung, L. (1996) Monetary Regimes, Inflation And Monetary Reform: An Essay in Honor of Axel Leijonhufvud.

1946 - 1953 from Reinhart, C. M. & Rogoff, K. S. (2010). From financial crash to debt crisis. (Black) market exchange rate.

1954 - 2020 from International Financial Statistics. IMF eLibrary. Nominal Exchange Rate (domestic currency / US Dollar) (end of period).

Note: We assume a Belgian franc-euro exchange rate of 40.3399 where necessary.

Peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1-2, all 3-6=0); broad peg category including crawling pegs.

2008 – 2020 extension of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1-2, all 3-6=0); broad peg category including crawling pegs.

Strict peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold? Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1, all 2-6=0); strict peg category excluding crawling pegs.

2008 – 2020 extension of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1, all 2-6=0); strict peg category excluding crawling pegs.

Exogenous monetary policy shocks

Exogenous variation in the short-term interest rate from Òscar Jordà, Moritz Schularick, Alan M. Taylor and Felix Ward, 2019. “Global financial cycles and risk premiums”. IMF Economic Review, Volume 67 Number 1, pp. 109-150, which uses the identification strategy using local projection with instrumental variables laid out in Òscar Jordà, Moritz Schularick and Alan M. Taylor, 2020. “The effects of quasi-random monetary experiments”. Journal of Monetary Economics 112: 22-40.

House prices (nominal index, 1990=100)

1878 – 1913 & 1919 - 2012 from Knoll et al. (2014). No price like home: Global house prices, 1870-2012 (1990=100). Year average values.

2013 - 2020 from OECD housing prices database. Nominal series. Chain-linked.

Unemployment rate (percent)

1921 – 1938 and 1950 – 1978: from Maddison, Angus (1982), Phases of Capitalist Development. Table 6 – Unemployment as a percentage of total labour force. Oxford University Press. Chainlinked.

1939 and 1945 – 1949: from Galenson and Zellner (1957) – The Measurement and Behavior of Unemployment, Chapter International Comparison of Unemployment Rates, Table 1 “Unemployment Rates, Nine Countries, 1900-1950 (per cent)”. Chainlinked.

1979 – 1982: from Mitchell, Brian (2013), International Historical Statistics Europe, 1750 – 2010, Table B2 Europe Unemployment, Palgrave Macmillan, London. Chainlinked.

1983 – 2020: from ILOSTAT (2020), Table “Unemployment rate by sex and age” based on the EU Labour force survey (LFS) accessible online at https//ilostat.ilo.org/data/.

Wages (index, 1990=100)

1870 – 1912: International Historical Statistics. Europe Labour force – Money/Wages in industry. Average wages in 5 industries. Chainlinked

1913 – 1919: Scholliers & Zamagni (1995) "Labour's Reward: Real wages and economic change in 19th- and 20th- century Europe". Average anual wages in the mining sector. Chainlinked.

1920 – 1937: International Historical Statistics. Europe Labour force – Money/Wages in industry. Daily wages of males in industry and transport. Chainlinked.

1938 – 1941 and 1947: Monthly Bulletin of Statistics (United Nations) January 1951. Hourly nominal earnings (including construction and transportation). Chainlinked.

1948 – 1989: International Monetary Fund International Financial Statistics database (IFS). Labor Markets, Wage Rates, Index. Accessible online at http//data.imf.org/. Chainlinked.

1990 – 2020: OECD. OECD statistics. Average annual wages. Current prices. Levels. Accessible online at http//stats.oecd.org/.

Credit Data (converted to millions BEF)

Total loans to non-financial private sector

1885 – 1911 growth rate calculated from Institut National de Statistique et Ministère des Affaires Économique (various), Annuaire Statistique de la Belgique (various issues). Table “Bilan d'Unions de Credit”, series “Loans (current accounts + portfolio).”

1912 – 1913 from National Bank of Belgium (1931), Revue Économique Bulletin (1931.09.25). Table “Situation des établissement de credit belges au 31 décembre de chaque année”, Series “Comptes courants débiteurs” + series “Immeuble mobilier etc” (accessible online at http://www.nbb.be/pub/06_00_00_00_00/06_03_00_00_00/06_03_03_00_00/economic_review_archive.htm?l=fr).

1920 – 1933 from Statistisches Reichsamt of Germany (1936), “Statistisches Handbuch der Weltwirtschaft,”, Berlin: Verein für Socialpolitik, Wirtschaft und Statistik.

1934 – 1937 growth rate calculated from National Bank of Belgium (1939), Revue Économique (1939.01.01). Table “Situation trimestrielles des banques belges – Situations globales des banques, comptes courants débiteurs”, Series “Comptes courants débiteurs” (accessible online at see above).

1938 – 1940 growth rate calculated from National Bank of Belgium (various), Revue Économique (various). Columns “Reports et avances sur titres + débiteurs par acceptations + débiteurs divers” (accessible online at see above).

1950 – 1960 growth rate calculated from Total Financial Assets.

1961–79 from National Bank of Belgium (various), Revue Économique (various issues). Table 12 “Créances de dettes dans l’économie belge – 1b Encours des créances et des dettes”. Series “Intermédiaires financiers: Organisms monétaires + caisses d’épargne + sociétés hypothécaires et de capitalization +organisms d’assurance vie et accidents de travail, fonds de pension” (accessible online at http://www.nbb.be/pub/06_00_00_00_00/06_03_00_00_00/06_03_03_00_00/economic_review_archive.htm?l=fr).

1980 – 1991 from National Bank of Belgium (2012), Bank Lending to non–financial sector. Series “Lending to households and non–financial corporations” (note: series sent by email, contact person Viviane De Pré, NBB, data shop).

1992 – 1996 from International Monetary Fund (2012), International Financial Statistics. Data “Total claims on private sector” (accessible online at https://data.imf.org/).

1997 – 2020 sum of Total Loans to Households and Total Loans to Business.

Mortgage loans to non-financial private sector

1885 – 1913 from Fritz Schultze (1918), Die Belgischen Bodenkreditinstitute, Duncker & Humblot, Leipzig/München. Series “Hypotheken”.

1920 – 1939 from Peters, Stef; Goosens, Martine, & Buyst, Erik (2005), Belgian National Income During the Interwar Period, Leuven University Press. Reconstruction of the Database. Table 67, column 3 "Outstanding mortgage debt with private individuals".

1950 from National Bank of Belgium (1960), Monthly Bulletin (1960.10.01). Table "Evolution de la dette hypothécaire par catégorie de créanciers", p240, Series ”Total” (accessible online at http://www.nbb.be/doc/ts/publications/economicreview/1960/1960.10.01–BULL.pdf). Chain-linked.

1951 – 1959 growth rate calculated from Institut National de Statistique et Ministère des Affaires Économique (1971), ibid. Table “Dette hypothécaire”, series “Total”, p447.

1960 – 2002 from National Bank of Belgium (2012), data shop, contact person: Viviane de Pré. Series “Evolution de la Dette Hypothécaire par Créanciers”. (According to de Pré this series is no longer available)

2003- 2020 from National Bank of Belgium, Belgostat. Financial account of Belgium, Table “Financial assets and liabilities of individuals and non-financial corporations, Account: financial wealth, Institutional sector: Individuals, Financial Instrument: Mortgage loans (accessible online at https://stat.nbb.be/Index.aspx)

Total Loans to Households

1950 – 1991 growth rate calculated from Mortgage loans to non-financial private sector.

1992 – 1997 from National Bank of Belgium (2012), Belgostat. Table “Financial liabilities of individuals”, series “Loans at over one year – Total” (accessible online at http://www.nbb.be/belgostat/).

1998- 2020 National Bank of Belgium, Belgostat. Financial account of Belgium, Table “Financial liabilities of individuals and non-financial cooperations”, Account: Financial wealth, Institutional sector: Individuals, Frequency: Annual, Financial Instrument:Financial liabilities, Long-term

loans" (accessible online at: //www.nbb.be/belgostat/PublicatieSelectieLinker?LinkID=788000082|910000082&Lang=E)

Total Loans to Business

1950 – 1996 residual of Total loans to non-financial private sector and Total Loans to Households.

1997 – 2020 from National Bank of Belgium, Belgostat. Financial account of Belgium, Table "Financial liabilities of individuals and non-financial cooperations", Account: Financial wealth, Institutional sector: non-financial cooperations, Frequency: Annual sum of series "short term loans – Bank loans" and "Long term loans – Bank loans" http://www.nbb.be/belgostat/PublicatieSelectieLinker?LinkID=788000084|910000082&Lang=E (note: 1997 corrected for break in data series) (accessible online at http://www.nbb.be/belgostat/).

Corporate Debt

1950–1979 residual of total loans to non-financial private sector and total loans to households (both from JST MacroHistory Database).

1980–1993 bank loans to business and capital market debt from "Credit to the non-financial sector" database of the Bank of International Settlements (acessible online at https: //www.bis.org/statistics/totcredit.htm).

1994–2013 OECD financial accounts data on total non-equity liabilities of the private non-financial business sector.

2014–2020 eurostat financial accounts data on total non-equity liabilities of the private non-financial business sector.

Bank balance sheet ratios

(Ratios in %, underlying data in millions BEF)

Capital ratio

Capital ratio = Capital / Total assets

Total assets (converted to millions BEF)

1920-1932 Banque Nationale Belge, Economic Bulletins, issue (1933-09-25), Table- Situation des etablissements de credit belges. Series: "Total de l'Actif". Levels.

1933 Banque Nationale Belge, Statistiques Economique Belge (issue 1929 -1940), Table- Situation des etablissements de credit belges. Series: "Total de l'Actif". Levels.

1935-1991 Banque Nationale Belge, Statistiques Economiques Belge (issues 1929 -1940, 1940-1950, 1950-1960, 1960-1970, 1970-1980, 1980-1990) Table "Situation globale des banques" - "Total actif". Chainlinked.

1992-2020 NBB online statistics; Major credit institutions governed by Belgian law; December values. Series “Total Assets”, http://stat.nbb.be/Index.aspx?DataSetCode=CREDINSCORP#. Levels.

Capital (converted to millions BEF)

1920-1932 Banque Nationale Belge, Economic Bulletins, issue (1933-09-25), Table- Situation des etablissements de credit belges. Series: “Capital verse”+”Reserves”. Chainlinked capital ratio.

1933 Banque Nationale Belge, Statistiques Economique Belge (issue 1929 -1940), Table- Situation des etablissements de credit belges. Series: ““Capital-actions verse”+”Reserves diverses”.

1935-1991 Banque Nationale Belge, Statistiques Economiques Belge (issues 1929 -1940, 1940-1950, 1950-1960, 1960-1970, 1970-1980, 1980-1990) Table “Situation globale des banques”– “Total passive non-exigible”. Chainlinked capital ratio.

1992-2020 NBB online statistics; Credit institutions on a corporate basis; Major credit institutions governed by Belgian law; December values. Series “Own ressources”, http://stat.nbb.be/Index.aspx?DataSetCode=CREDINSCORP#. Levels.

Loans-to-Deposits ratio

Loans-to-Deposits ratio = Loans / Deposits

Deposits (converted to millions BEF)

1920-1932 Economic Bulletins, BNB, issue (1933-09-25), Table- Situation des etablissements de credit belges. Series: “Engagements immediates ou indetermines”.

1933 Banque Nationale Belge, Statistiques Economique Belge (issue 1929 -1940), Table- Situation des etablissements de credit belges. Series: “Engagements immediates ou indetermines”.

1935-1991 Banque Nationale Belge, Statistiques Economiques Belge (issues 1929 -1940, 1940-1950, 1950-1960, 1960-1970, 1970-1980, 1980-1990) Table “Situation globale des banques” – “Depots et comptes courants” as sum of “Depots et comptes courants a vue et a moins de 30 jours” and “Depots et comptes courants a plus de 30 jours”. Chainlinked as share in total debt.

1992-2020 NBB online statistics; Credit institutions on a corporate basis; Major credit institutions governed by Belgian law; December values. Series “Deposits”. Levels

Loans (converted to millions BEF)

1920-1932 based on Economic Bulletins, BNB, issue (1933-09-25), Table- Situation des etablissements de credit belges. Series: “Comptes courants debiteurs”+”Prets”+”Immeubles, mobilier, etc.”+”Portefeuille Effets de Commerce”.

1933 based on Banque Nationale Belge -Statistiques Economique Belge 10years, Table- Situation des etablissements de credit belges. Series: “Comptes courants debiteurs”+”Prets”+”Immeubles, mobilier, etc.” +”Portefeuille Effets de Commerce”.

1935-1991 Banque Nationale Belge, Statistiques Economiques Belge (issues 1929 -1940, 1940-1950, 1950-1960, 1960-1970, 1970-1980, 1980-1990) - Table “Situation globale des banques” – sum of “Portefeuille Effets Commerciaux” (1935 – 1941; chainlinked with Total Portefeuille Effets) + ”Comptes courants debiteurs” + “Reports et avances sur titres” + “Debiteurs par acceptations” + “Debiteurs divers”.

1992-2020 NBB online statistics; Credit institutions on a corporate basis; Major credit institutions governed by Belgian law; December values. Series “Claims on clients”, http://stat.nbb.be/Index.aspx?DataSetCode=CREDINSCORP#. Levels.

Noncore ratio

Noncore ratio = (Total Assets - Capital - Deposits) / (Total Assets - Capital)

CANADA

(Data in billions CAD)

Macro Data

Population

1870 – 2008 from Angus Maddison Database (2008), ibid. Table 1 “Population levels, 1AD–2030AD” (accessible online at http://www.ggdc.net/maddison/Historical_Statistics/horizontal–file_02–2010.xls).

2009 – 2016 growth rates from International Monetary Fund (Aug, 2019), World Economic Outlook. Subject “People – population” (base year: 2008) (accessible at www.imf.org).

2017 – 2020 growth rates from International Monetary Fund (Oct, 2021), World Economic Outlook. Subject “People – population” (base year: 2008) (accessible at www.imf.org).

GDP (billions CAD)

1870-1947 from Mark Dincecco and Mauricio Prado (2013), "Nominal GDP Series, 1870-2000". Online: http://gpih.ucdavis.edu/GDP.htm . Levels.

1948-2020 from International Monetary Fund (2021), International Financial Statistics. Series "Gross domestic product" (accessible online at https://www.imf.org/external/pubs/ft/weo/2019/01/weodata/index.aspx).

Real GDP per capita (PPP, 1990 Int$, Maddison)

1870 – 2010 from The Maddison-Project, http://www.ggdc.net/maddison/maddison-project/home.htm, 2013 version. http://www.ggdc.net/maddison/maddison-project/home.htm . Level.

2011 – 2020 from International Monetary Fund. World Economic Outlook. Series: Gross domestic product based on purchasing-power-parity (PPP) per capita GDP. Chain-linked.

Real GDP per capita (index, 2005=100)

1870 – 2004 from R. Barro & and J. Ursúa (2010), Macroeconomic Data Set, Harvard University, Cambridge MA (accessible online at http://scholar.harvard.edu/barro/publications/barro–ursua–macroeconomic–data).

2005 – 2020 growth rate calculated from World Bank (2021), Category "Economic policy and external debt," Series "GDP per capita (constant 2010 US$) (accessible online at http://data.worldbank.org/indicator/NY.GDP.PCAP.KD).

Real consumption per capita (index, 2006=100)

1871 – 2009 from Robert C. Barro and José F. Ursúa (2010), Barro–Ursúa Macroeconomic Data. For respective sources see original data set: http://rbarro.com/data–sets/.

2010 – 2020 from World Bank household final consumption expenditure per capita (constant 2010 US$). Chain linked.

Investment-to-GDP ratio

1871 – 1945 data from Mitchell, Brian (2007) International Historical Statistics: The Americas 1750 – 2005, Pallgrave MacMillen, London.

1946 – 1947 from van Meerten, Michelangelo. Capital formation in Belgium, 1900-1995. Leuven University Press, 2003.

1948 – 2020 Post–WWII data from International Monetary Fund, International Financial Statistics. Data Report "National Accounts", Series "Gross Fixed Capital Formation, Nominal" (accessible online at https://data.imf.org/).

Consumer prices (index, 1990=100)

1870 – 1996 from A. Taylor (2002), A Century of Purchasing–Power Parity, Review of Economics and Statistics, vol 84(1), pp. 139–150.

1997 – 2020 from International Monetary Fund World Economic Outlook (April 2021). Series "Inflation, average consumer prices" (accessible online at https://www.imf.org/external/pubs/ft/weo/2019/01/weodata/index.aspx). Chainlinked.

Narrow Money (billions CAD)

1871 – 1948 from Metcalf et al. 1996 “New estimates of the Canadian money stock: 1871-1967.” Discussion paper No.: 96-17. Series M1. Year average of monthly data. Level.

1949 – 2004 from Mitchell, B. (2013). International Historical Statistics. Series: M1. Level.

2005 – 2020 from Bank of Canada, Series: Selected monetary aggregates and their components (formerly E1), M1+ (gross) (Seasonally adjusted), Dec values.

Broad Money (billions CAD)

1871-1879 from Metcalf et al. 1996 “New estimates of the Canadian money stock: 1871-1967.” Discussion paper No.: 96-17. Series M2. Year average of monthly data. Level.

1880 – 1967 from Bordo, Michael D., Barry Eichengreen, Daniela Klingebiel, and Maria Soledad Martinez–Peria. 2001. “Is the Crisis Problem Growing More Severe?” Economic policy: A European Forum 32: 51–75. Series “monagglc” = M2 according to documentation. Level.

1968 – 2001 from International Monetary Fund, eLibrary. International Financial Statistics, series M2, Alternate Definition 2, National Currency.

2002 – 2020 from Bank of Canada, Series: Selected Monetary Aggregates and their components (formerly E1), M2+ (gross) (Unadjusted), Dec values.

Short–term interest rate (nominal, percent per year)

1934-1947 from Statistics Canada. Historical Statistics of Canada. Table J471-480. Series: 3-month treasury bill yield. Average annual rate.

1948–2016 data from International Monetary Fund (2019), International Financial Statistics database (IFS). Section “Economic indicators”, Series “Interest Rates – treasury bill rate” (accessible online at https://data.imf.org/).

2017–2020 data from Bank of Canada, Treasury bill auction - average yields - 3 month – average.

Long–term interest rate (nominal, percent per year)

1870 – 1873 from Investor’s Monthly Manual. Current yield of Canadian Dominion 5% bond. Final redemption: 1885. December values.

1874 – 1895 from sum of “Yield on consols” (from Bank of England, Three centuries of macroeconomic data, Series: Yield on consols) and “Spread on consols” (from Clemens, M. A. and Williamson, J. G. (2004). Wealth bias in the first global capital market boom, 1870–1913. The Economic Journal.)

1896 – 1939 from Bordo, Michael D., Barry Eichengreen, Daniela Klingebiel, and Maria Soledad Martinez–Peria. 2001. “Is the Crisis Problem Growing More Severe?” Economic policy: A European Forum 32: 51–75.

1940 – 1947 from Homer, S. and R. Sylla (2005). A History of Interest Rates, Fourth Edition. Wiley Finance.

1948 – 2016 from International Monetary Fund (2019), International Financial Statistics (IFS). Data reports “Economic indicators (IFS)”, Section “Interest rates”, Series “Government Bonds, percent per Anum”.

2017–2020 data from Bank of Canada, avergae of: Government of Canada marketable bonds - average yield - over 10 years.

Current Account (billions CAD)

1870 – 1945 from M. Jones & M. Obstfeld (1997), Saving, Investment, and Gold: A Reassessment of Historical Current Account Data, NBER Working Paper No. 6103, MIT Press, Cambridge MA (accessible online at http://www.nber.org/databases/jones–obstfeld/).

1948 – 2020 International Monetary Fund (2020), International Financial Statistics. Supplementary Items, Current Account, Net (excluding exceptional financing), US Dollars (accessible online https://data.imf.org).

Imports & Exports (billions CAD)

1870 – 1947 B. Mitchell (2007), International Historical Statistics: The Americas 1750 – 2005, Pallgrave MacMillen, London.

1948 – 2020 from International Monetary Fund, International Financial Statistics: Archive, 2021 M10, External trade, imports, goods, value, cost, insurance freight, Domestic Currency; External Trade, Goods, Value of Exports, Free on Board (FOB), Domestic Currency (accessible online at https://data.imf.org/).

Government Revenues (billions CAD)

1870 – 1962 from Statistics Canada (various), Canada Statistical Yearbook (various issues) (accessible online at http://www66.statcan.gc.ca/acyb_000–eng.htm).

1963 – 1980 from Mitchell, B. (2013). International Historical Statistics. Revenues - Total. Level.

1981 – 2020 from OECD, OECD.Stat. Database “OECD national accounts statistics,” Dataset “General government accounts,” Table 12 “Government deficit/surplus, revenue, expenditure, and main aggregates,” Sector GS1311 “Central government,” Measure “National currency, current prices,” Series GTR “Total general government revenue” (accessible online at http://www.oecd–ilibrary.org/statistics). Level.

Government Expenditure (billions CAD)

1870 – 1959 from Statistics Canada (various), Canada Statistical Yearbook (various issues) (accessible online at http://www66.statcan.gc.ca/acyb_000–eng.htm).

1960 – 1980 from Mitchell, B. (2013). International Historical Statistics. Central Government Expenditure. Level.

1981 – 2020 from OECD (2021), OECD.Stat. Database “OECD national accounts statistics,” Dataset “General government accounts,” Table 12 “Government deficit/surplus, revenue, expenditure, and main aggregates,” Sector GS1311 “Central government,” Measure “National

currency, current prices," Series GTE "Total general government expenditure" (accessible online at http://www.oecd–ilibrary.org/statistics). Level.

Public debt-to-GDP ratio

1870-2010 from Abbas, S.M. Ali, Nazim Belhocine, Asmaa El-Ganainy and Mark Horton (2010) "A Historical Public Debt Database", IMF Working Paper WP/10/245, Washington, DC.

2011 – 2020 from International Monetary Fund, World Economic Outlook Database, General Government Gross Debt, nominal (data accessible at http://www.imf.org/external/pubs/ft/weo/2013/01/weodata/weoselco.aspx?g=110&sg=All+countries+%2f+Advanced+economies). Devide by JST GDP after having updated.

USD exchange rate (local currency/USD)

1870 - 1899 from Denzel. M.A. (2010). Handbook of World Exchange Rates, 1590-1914. Canadian Dollar / pound * pound / US Dollar (contained in this dataset).

1900 – 1908 from Bordo, Michael D., Barry Eichengreen, Daniela Klingebiel, and Maria Soledad Martinez–Peria. 2001. "Is the Crisis Problem Growing More Severe?" Economic policy: A European Forum 32: 51–75.

1909 - 1914 from Denzel. M.A. (2010). Handbook of World Exchange Rates, 1590-1914. Canadian Dollar / pound * pound / US Dollar (contained in this dataset).

1915 – 1939 from Banking and Monetary Statistics, 1914-1941. International Financial Statistics. Table 173. https://fraser.stlouisfed.org/scribd/?toc_id=334474&filepath=/docs/publications/bms/1914-1941/BMS14-41_complete.pdf&start_page=555

1940 – 1941 from Lawrence H. Officer, "Exchange Rates Between the United States Dollar and Forty-one Currencies,", MeasuringWorth, 2015 http://www.measuringworth.com/exchangeglobal/

1942 – 1946 from Bordo, M. D. & Jonung, L. (1996) Monetary Regimes, Inflation And Monetary Reform: An Essay in Honor of Axel Leijonhufvud.

1947 – 1950 from Reinhart, C. M. & Rogoff, K. S. (2010). From financial crash to debt crisis. (Black) market exchange rate.

1951 – 2020 from International Financial Statistics. IMF eLibrary. Nominal Exchange Rate " Exchange Rates, National Currency Per U.S. Dollar, End of Period, Rate".

Peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1-2, all 3-6=0); broad peg category including crawling pegs.

2008 – 2020 extension of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1-2, all 3-6=0); broad peg category including crawling pegs.

Strict peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1, all 2-6=0); strict peg category excluding crawling pegs.

2008 – 2020 extension of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1, all 2-6=0); strict peg category excluding crawling pegs.

Exogenous monetary policy shocks

Exogenous variation in the short-term interest rate from Òscar Jordà, Moritz Schularick, Alan M. Taylor and Felix Ward, 2019. “Global financial cycles and risk premiums”. IMF Economic Review, Volume 67 Number 1, pp. 109-150, which uses the identification strategy using local projection with instrumental variables laid out in Òscar Jordà, Moritz Schularick and Alan M. Taylor, 2020. “The effects of quasi-random monetary experiments”. Journal of Monetary Economics 112: 22-40.

House prices (nominal index, 1990=100)

1921 – 1949 & 1956 – 2012 from Knoll et al. (2014). No price like home: Global house prices, 1870-2012. Year average values.

2013 – 2020 from OECD Statistics. Prices and Purchasing Power Parities, House prices and related indicators, Analytical house price indicators, Nominal house price indices, s.a. Chain-linked.

Unemployment rate (percent)

1916 - 1920 from Galenson and Zellner (1957) – The Measurement and Behavior of Unemployment, Chapter International Comparison of Unemployment Rates, Table 1 “Unemployment Rates, Nine Countries, 1900-1950 (per cent)”. Chainlinked.

1921 – 1937 and 1955 – 1975 from Maddison, Angus (1982), Phases of Capitalist Development. Table 6 – Unemployment as a percentage of total labour force. Oxford University Press. Chainlinked.

1938 – 1954 from Mitchell, Brian (2013), International Historical Statistics Europe, 1750 – 2010, Table B2 Europe Unemployment, Palgrave Macmillan, London. Chainlinked.

1976 – 2020 from ILOSTAT (2020), Table “Unemployment rate by sex and age” based on the Labour force survey (LFS) accessible online at https//ilostat.ilo.org/data/.

Wages (index, 1990=100)

1870 - 1900 Williamson (1995) "The evolution of global labor markets since 1830 background evidence and hypotheses". Real wages inflated using consumer price index from A. Taylor (2002), A Century of Purchasing–Power Parity, Review of Economics and Statistics, vol 84(1), pp. 139–150. Chainlinked.

1901 – 1971 from Meltz, N. M. (1983). Section E Wages and Working Conditions. Statistics Canada, Historical Statistics of Canada, 101-3. General index of average wage rates for selected main industries. Accessible online at https//www150.statcan.gc.ca/n1/pub/11-516-x/sectione/4147438-eng.htm#7. Chainlinked

1972 - 1989 International Monetary Fund International Financial Statistics database (IFS). Labor Markets, Manufacturing Wage Rates, Index. Accessible online at http//data.imf.org/. Chainlinked.

1990 - 2020 OECD. OECD statistics. Average annual wages. Current prices. Levels. Accessible online at http//stats.oecd.org/.

Credit Data (billions CAD)

Total loans to non-financial private sector

1870 – 1873 from M.C. Urquhart (1965), Historical Statistics of Canada, Cambridge UP, Toronto. Series H219, H220.

1874 – 1890 from Urquhart, ibid. Series H206, H208, H219, H220. and Statistics Canada (various), Canada Statistical Yearbooks (various). 1900: Series “Current loans secured on real estate”, p348; 1903: Series “Loans secured by mortgage”, p441

1891 – 1899 from Urquhart, ibid. Series H191; and Statistics Canada (various), ibid. 1900: Series “Current loans secured on real estate”, p348; 1903: Series “Loans secured by mortgage”, p441

1900 – 1913 from M.C. Urquhart (1965), ibid. Series H172; and Statistics Canada (various), ibid. 1903: p441 “Loans secured by mortgage”; 1908: p428 “Current loans secured on real estate”; 1913: p560 “Current loans secured on real estate”; 1914: p591 “Current loans secured on real estate”

1914 – 1960 from M.C. Urquhart (1965), ibid. Series H151, H127, H103, H74. and Statistics Canada (various), ibid. 1930: p870; 1936: p911; 1938: p922; 1941: p819; 1945: p1009, p1023, p1024; 1948: p1039; 1951: p1043; 1952–53: p1108; 1955: p1204; 1956: p1115; 1957–58: p1147

1961 – 1989 from Statistics Canada. Table 378–0059 (terminated 2011) “Chartered banks and quasi–banks: Consumer credit, loans and mortgages”.

1990 – 2010 from Statistics Canada. Table 378–0121; Chartered banks and quasi–banks – Loans – Sum of Consumer credit, non–mortgage loans and mortgages”. (accessible online at http://www5.statcan.gc.ca/cansim/).

2011 – 2020 from Statistics Canada. Table: 36-10-0580-01 (formerly CANSIM 378-0121); Chartered banks and quasi–banks – Total assets - Loans – Sum of “Consumer credit”, “Non–mortgage loans”, and “Mortgages”. Chain-Linked to the previous values (1990-2010). (accessible online at https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3610058001)

Mortgage loans to non-financial private sector

1874 – 1914 from Canada Statistical Yearbooks. 1900: p348 “Current loans secured on real estate”; 1903: p441 “Loans secured by mortgage”; 1908: p428 “Current loans secured on real estate”; 1913: p560 “Current loans secured on real estate”; 1914: p591 “Current loans secured on real estate”.

1915 – 1947 from Canada Statistical Yearbooks. 1930: p870 “Loan companies chartered by the dominion government, assets: Lent on mortgages and hypothèques“; 1936: p911; 1938: p922; 1941: p819; 1945: p1009, p1023 “Loan companies chartered by the dominion government, assets: Lent on mortgages and hypothèques“, p1024; 1948: p. 1039; 1951: p1043; 1952–53: p1108; 1955: p1204; 1956: p1115; 1957–58: p. 1147.

1948 – 1953 from M.C. Urquhart (1965) ibid. Series H492; and Canada Statistical Yearbooks. 1930: p870; 1936: p911; 1938: p922; 1941: p819; 1945: p1009, p1023, p1024; 1948: p1039; 1951: p1043; 1952–53: p1108; 1955: p1204; 1956: p1115; 1957–58: p1147.

1954 – 1989 from Statistics Canada. Table 378–0059 (terminated 2011) “Chartered banks and quasi–Banks: Mortgages”.

1990 – 2010 from Statistics Canada. Table 378–0121; Chartered banks and quasi–banks – Loans – Sum of Consumer credit, non–mortgage loans and mortgages”. jump in 2011 mortgages due to: “Over the course of 2011 data in this table were affected by conversion to International Financial Reporting Standards (IFRS)” further: “Under the outgoing CGAAP, through the process of securitization and due to the subsequent sale of the corresponding debt or ABS, the originators of ABS do not report the securitized receivables and the corresponding securities on their own balance sheets. Under the incoming IFRS, these ABS and receivables will now be reported on the balance sheets of the companies themselves, as the originators of the ABS. This is an important change in financial reporting. As mentioned, currently the transfers of receivables off balance sheet are reported as sale transactions, but this will not be the case under IFRS. The consolidation on the originators' balance sheets will be the biggest change with respect to the Financial Flow Accounts and the National Balance Sheet Accounts. It is important to note that at the economy–wide level, neither lending via credit markets nor credit market debt will change; only the sectoral composition or distribution of the credit market assets and liabilities will be affected.”

2011–2020 update 1990–2010 series with growth rate of: On–balance sheet mortgages and securitization: Loan mortgages + Debt Securities + Other Short Term Paper + Other Accounts Receivable (unaffected by IFRS changes in 2011) all from Statistics Canada. Table 378–0121; National balance sheet accounts

Total Other Loans

Residual of Total loans to non-financial private sector and Mortgage loans to non-financial private sector.

Total Loans to Households

Sum of Mortgage Loans to Households and Total Other Loans to Households.

Mortgage Loans to Households

See Mortgage loans to non-financial private sector.

Total Other Loans to Households

1956 – 1960 growth rate calculated from Statistics Canada (2012). Table 176–0027 “Consumer credit, outstanding balances of selected holders“ (accessible online at http://www5.statcan.gc.ca/cansim/a01?lang=eng).

1961 – 1989 from Statistics Canada. Table 378–0059 (terminated 2011) “National balance sheet, total chartered banks and quasi–banks: Canada book value consumer credit (book value, as market value data goes only back to 1970, though both series are identical)“

1990 – 2020 from Statistics Canada. Table: 36-10-0580-01 (formerly CANSIM 378-0121); Chartered banks and quasi–banks – Loans – consumer credit”.

Total Loans to Business

1961 – 1989 from Statistics Canada, Table 378–0059 (terminated 2011) “Chartered banks and quasi–Banks: Loans”. (accessible online at http://www5.statcan.gc.ca/cansim/pick–choisir?lang=eng&p2=33&id=3780059)

1990 – 2020 from Statistics Canada. Table: 36-10-0580-01 (formerly CANSIM 378-0121); Sector: Chartered banks and quasi–banks Category: Total Financial assets: Loans – non–mortgage loans, q4 market values. (accessible online at https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3610058001)

Corporate Debt

1880–1941 lending of chartered banks recorded in Urquhart, M. C., and Buckley, K. A. H., Historical Statistics of Canada, ”Banking and Finance,” Series H87-179 and Canada Statistical Yearbooks (various).

1942–1960 lending to non-financial corporate business from Karsten Muller (¨ 2018) ”Credit Markets around the World, 1910–2014”, from SSRN (accessible online at https://ssrn.com/ abstract=3259636).

1961–1969 total non-equity liabilities of the private non-financial business sector from Statistics Canada, Series J568-875, Table J596-607 (accessible online at https://www150.statcan. gc.ca/n1/pub/11-516-x/sectionj/4147440-eng.htm#6).

1970–2013 OECD financial accounts data on total non-equity liabilities of the private non-financial business sector.

2014–2020 bank loans to business and capital market debt from “Credit to the non-financial sector” database of the Bank of International Settlements (accessible online at https: //www.bis.org/statistics/totcredit.htm).

Bank balance sheet ratios

(Ratios in %, Underlying data in billions CAD)

Capital ratio

Capital ratio = Capital / Total Assets

Total Assets (billions CAD)

1870-1882 Urquhart, M.C. and Buckley K.A.H., Historical Statistics of Canada, Chartered Banks, Total Assets, series H225, Levels.

1883-1912 Urquhart, M.C. and Buckley K.A.H., Historical Statistics of Canada, Chartered Banks, Total Liabilities, series H242. Levels.

1913-1922 Statistics Canada, Historical Statistics of Canada, Chartered Banking (Series J75-272), available online (https://www150.statcan.gc.ca/n1/pub/11-516-x/sectionj/4147440-eng.htm#3 sheet), “Assets 1913-1922”, series “Total Assets”. Levels.

1923-1933 Statistics Canada, Historical Statistics of Canada, Chartered Banking (Series J75-272), available online (https://www150.statcan.gc.ca/n1/pub/11-516-x/sectionj/4147440-eng.htm#3 sheet), “Assets 1923-1933”, series “Total Assets”. Levels.

1934-1944 Statistics Canada, Historical Statistics of Canada, Chartered Banking (Series J75-272), available online (https://www150.statcan.gc.ca/n1/pub/11-516-x/sectionj/4147440-eng.htm#3 sheet), “Assets 1934-1944”, series “Total Liabilities”. Levels.

1945-1977 Statistics Canada, Historical Statistics of Canada, Chartered Banking (Series J75-272), available online (https://www150.statcan.gc.ca/n1/pub/11-516-x/sectionj/4147440-eng.htm#3 sheet), “Assets 1945-1977”, series “Total Liabilities”. Levels.

1978-2020 Statistics Canada, CanSim, vector v36883, coordinate 1.1. “Chartered banks, assets and liabilities, at month-end, Bank of Canada” , Total assets, Levels. December values. (For 2020 September value was used).

Capital (billions CAD)

1870-1882 Urquhart, M.C. and Buckley K.A.H. Historical Statistics of Canada, Chartered Banks, difference between “Total Assets” (H225) and “Total Liabilities” (H242), Levels.

1883-1977 Urquhart, M.C. and Buckley K.A.H. Historical Statistics of Canada, Chartered Banks, series H240, “Capital and Rest Fund”. Levels.

1978-2020 Statistics Canada, CanSim, “Chartered banks, assets and liabilities, at month-end, Bank of Canada”, Canadian dollar shareholders' equity, vector v36970, coordinate 1.79. Levels. December values. (For 2020 September value was used)

Loans-to-Deposits ratio

Loans-to-Deposits ratio = Loans / Deposits

Deposits (billions CAD)

1870-1977 Urquhart, M.C. and Buckley K.A.H. Historical Statistics of Canada, Chartered Banks, Total Canadian Deposits, series H234. Levels.

1978-2020 Statistics Canada, CanSim, “Chartered banks, assets and liabilities, at month-end, Bank of Canada”, Canadian Dollar Total Deposits, vector v36939, coordinate 1.57. Levels. December values. (For 2020 September value was used)

Loans (billions CAD)

1870-1912 Urquhart, M.C. and Buckley K.A.H. Historical Statistics of Canada, Chartered Banks, series H221, “Total Loans”, Levels.

1913-1922 Statistics Canada, Historical Statistics of Canada, Chartered Banking (Series J75-272), available online (https://www150.statcan.gc.ca/n1/pub/11-516-x/sectionj/4147440-eng.htm#3 sheet), “Assets 1913-1922”, series H171, “Total Loans in Canada”. Levels.

1923-1933 Statistics Canada, Historical Statistics of Canada, Chartered Banking (Series J75-272), available online (https://www150.statcan.gc.ca/n1/pub/11-516-x/sectionj/4147440-eng.htm#3 sheet), “Assets 1923-1933”, series 147 “Total Loans in Canada”. Levels.

1934-1944 Statistics Canada, Historical Statistics of Canada, Chartered Banking (Series J75-272), available online (https://www150.statcan.gc.ca/n1/pub/11-516-x/sectionj/4147440-eng.htm#3 sheet), “Assets 1934-1944”, series 123. “Total Loans in Canada”. Levels.

1945-1976 Statistics Canada, Historical Statistics of Canada, Chartered Banking (Series J75-272), available online (https://www150.statcan.gc.ca/n1/pub/11-516-x/sectionj/4147440-eng.htm#3 sheet), “Assets 1945-1977”, series 94 “Total Loans”. Levels.

1977-1980 Statistics Canada, Table 176-0015 Chartered banks, Canadian dollar loans, general loans (personal and business loans). Chainlinked.

1981-2008 Statistics Canada, Table 176-0015 Chartered banks, Loans in Canadian Dollar total, vector v36923. Levels.

2009-2020 Statistics Canada, Table: 10-10-0110-01, “Chartered banks, assets and liabilities, at month-end, Bank of Canada” , Canadian Dollar Total Loans, vector v53006714. Levels. December values. (For 2020 September value was used)

Noncore ratio

Noncore ratio = (Total Assets - Capital - Deposits) / (Total Assets - Capital)

DENMARK

(Data in billions DKK)

Macro Data

Population

1870 – 2008 from Angus Maddison Database (2008), ibid. Table 1 “Population levels, 1AD–2030AD” (accessible online at http://www.rug.nl/research/ggdc).

2009 – 2017 growth rates from International Monetary Fund (Aug, 2019), World Economic Outlook. Subject “People – population” (base year: 2008) (accessible at www.imf.org/external).

20018 – 2020 growth rates from International Monetary Fund (Oct, 2021), World Economic Outlook. Subject “People – population” (base year: 2008) (accessible at www.imf.org/external).

GDP (billions DKK)

1870 – 1949 from Mitchell, Brian (1992), International Historical Statistics: Europe 1750 – 1988, Pallgrave MacMillen, London.

1950 – 2002 from International Monetary Fund (2014), International Financial Statistics. Data Report “Economic indicators”, Series “Gross domestic product (in billions) – GDP nominal” (accessible online at https://data.imf.org/).

2003 – 2020 from International Monetary Fund (2021), International Financial Statistics. Data Report “Economic indicators”, Series “Gross domestic product (in millions) – GDP nominal” (accessible online at http://data.imf.org//).

Real GDP per capita (PPP, 1990 Int$, Maddison)

1870 – 2010 from The Maddison-Project, http://www.ggdc.net/maddison/maddison-project/home.htm, 2013 version. http://www.ggdc.net/maddison/maddison-project/home.htm . Level.

2011 – 2020 from International Monetary Fund. World Economic Outlook. Series: Gross domestic product based on purchasing-power-parity (PPP) per capita GDP. Chain-linked.

Real GDP per capita (index, 2005=100)

1870 – 2004 from R. Barro & and J. Ursúa (2010), Macroeconomic Data Set, Harvard University, Cambridge MA (accessible online at http://scholar.harvard.edu/barro/publications/barro–ursua–macroeconomic–data).

2005 – 2020 growth rate calculated from World Bank (2021), Category "Economic policy and external debt," Series "GDP per capita (constant 2010 US$) (accessible online at http://data.worldbank.org/indicator).

Real consumption per capita (index, 2006=100)

1870 – 2009 from Robert C. Barro and José F. Ursúa (2010), Barro–Ursúa Macroeconomic Data. For respective sources see original data set: http://scholar.harvard.edu/barro/publications/barro–ursua–macroeconomic–data.

2010 – 2020 from World Bank household final consumption expenditure per capita (constant 2010 US$). Chain linked.

Investment-to-GDP ratio

1870 – 1951 (WW1 gap) data from Mitchell, Brian (2013), International Historical Statistics: Europe 1750 – 2010, Pallgrave MacMillen, London. (note: no data for 1915-1921).

1952 – 2020 Post–WWII data from International Monetary Fund, International Financial Statistics. Data Report "National Accounts", Series "Gross Fixed Capital Formation, Nominal" (accessible online at https://data.imf.org/).

Consumer prices (index, 1990=100)

1870 – 1996 from A. Taylor (2002), A Century of Purchasing–Power Parity, Review of Economics and Statistics, vol 84(1), pp. 139–150.

1997 – 2020 from International Monetary Fund World Economic Outlook (April 2021). Series "Inflation, average consumer prices" (accessible online at https://www.imf.org/external/pubs/ft/weo/2019/01/weodata/index.aspx). Chainlinked.

Narrow Money (billions DKK)

1870 – 1945 from Hans Chr. Johansen, Dansk Historisk Statistik, tables 6.2, 6.6, 6.8 (available at http://www.dst.dk/da/Statistik/Publikationer)

1950 – 2012 from International Monetary Fund, International Financial Statistics, series M1 (Economic Concept View – Monetary Data (SRFs) – Monetary Aggregates).

2013 – 2020 from Denmarks Nationalbank, BANKING AND MORTGAGE LENDING, DNMNOGL: Key figures for MFI-sector by key figures and sector, Monetary aggregate M1 (DKK million).

Broad Money (billions DKK)

1870 – 2020 Abildgren, Kim. A Chart & Data Book on the Monetary and Financial History of Denmark, Working Paper, 30 May 2017. Series: Broad Money, M2 https://sites.google.com/view/kim-abildgren/historical-statistics

Short–term interest rate (nominal, percent per year)

1875 – 2003 Abildgren, K. (2005). A historical perspective on interest rates in Denmark 1875-2003. Money market rates.

2004 – 2020 International Monetary Fund. International Financial Statistics. Interest Rates – Money Market Rates.

Long–term interest rate (nominal, percent per year)

1870 – 1874 from Danmarks Statistisk, Publikationer, Kreditmarkedsstatistisk. Available at: http://www.dst.dk/da/Statistik/Publikationer

1875-1880 Abildgren, K. (2005). A historical perspective on interest rates in Denmark 1875-2003. Government Bond Rates (long-term).

1880 – 1947 from Bordo, Michael D., Barry Eichengreen, Daniela Klingebiel, and Maria Soledad Martinez–Peria. 2001. "Is the Crisis Problem Growing More Severe?" Economic policy: A European Forum 32: 51–75.

1948-2020 International Monetary. International Financial Statistics. Monetary and Financial Accounts, Interest Rates, Securities Markets, Government Debt Securities, Government Bonds, Percent per Annum

Current Account (billions DKK)

1874 – 1914 from M. Jones & M. Obstfeld (1997), Saving, Investment, and Gold: A Reassessment of Historical Current Account Data, NBER Working Paper No. 6103, MIT Press, Cambridge MA (accessible online at http://www.nber.org/databases/jones–obstfeld/).

1921 – 1945 from M. Jones & M. Obstfeld (1997), Saving, Investment, and Gold: A Reassessment of Historical Current Account Data, NBER Working Paper No. 6103, MIT Press, Cambridge MA (accessible online at http://www.nber.org/databases/jones–obstfeld/).

1946 – 1974 from B. Mitchell (2007), International Historical Statistics: Europe 1750 – 2005, Pallgrave MacMillen, London.

1975 – 2007 International Monetary Fund (2010), International Financial Statistics. Table "Balance of payments", Series "Balances – current account balance" (accessible online https://data.imf.org/).

2008 – 2020 International Monetary Fund, World Economic Outlook. % of GDP * nominal GDP = Current Account (available at www.imf.org/external)

Imports & Exports (billions DKK)

1870 – 1953 from B. Mitchell (2007), from B. Mitchell (2007), International Historical Statistics: Europe 1750 – 2005, Pallgrave MacMillen, London.

1948 – 2020 from International Monetary Fund, International Financial Statistics: archive, M10 2021, External Trade, Goods, Value of Exports, Free on Board (FOB), Domestic Currency; External trade, Imports, Goods, Value, Cost, Insurance freight, Domestic Currency.

Government Revenues (billions DKK)

1870 – 1935 from H. Johansen (1985), Dansk økonomisk statistik 1814 – 1980, Gyldendal, Kopenhagen.

1954 – 1971 from H. Johansen (1985), ibid.

1972 – 1994 from Statistics Denmark (2012), Statbank. Subject “National accounts and government finances – Taxes & duties”, Table SKAT “Taxation total, divided into rates and dues by type (1947 – 2011)”, Type “Total taxes and duties” (accessible online at http://www.statbank.dk).

1995 – 2020 from OECD, OECD.Stat. Database “OECD national accounts statistics,” Dataset “General government accounts,” Table 12 “Government deficit/surplus, revenue, expenditure, and main aggregates,” Sector GS1311 “Central government,” Measure “National currency, current prices,” Series GTR “Total general government revenue” (accessible online at http://www.oecd–ilibrary.org/statistics). Level.

Government Expenditure (billions DKK)

1870 – 1935 from H. Johansen (1985), Dansk økonomisk statistik 1814 – 1980, Gyldendal, Kopenhagen.

1937 – 1971 from P. Flora, 1983. State, Economy and society in Western Europe, 1815-1975. Denmark Public Expenditures, Central government.

1972 – 1994 from Statistics Denmark (2012), Statbank. Subject “National accounts and government finances – Taxes & duties”, Table SKAT “Taxation total, divided into rates and dues by type (1947 – 2011)”, Type “Total taxes and duties” (accessible online at http://www.statbank.dk).

1995 – 2020 from OECD, OECD.Stat. Database “OECD national accounts statistics,” Dataset “General government accounts,” Table 12 “Government deficit/surplus, revenue, expenditure, and main aggregates,” Sector GS1311 “Central government,” Measure “National currency, current prices,” Series GTR “Total general government expenditure” (accessible online at http://www.oecd–ilibrary.org/statistics). Level.

Public debt-to-GDP ratio

1880-2009 from Abbas, S.M. Ali, Nazim Belhocine, Asmaa El-Ganainy and Mark Horton (2010) "A Historical Public Debt Database", IMF Working Paper WP/10/245, Washington, DC. (Note: no data for 1947-1952, 1957-1959, 1997).

2010 – 2020 from Statistics Denmark, Economy, general government economy, EMU debt and EMU balance, Tables in Stat Bank, EDP1: Government deficit and debt in the EU-countries by country, function and unit, in % of GDP

USD exchange rate (local currency/USD)

1870 - 1912 from Denzel. M.A. (2010). Handbook of World Exchange Rates, 1590-1914. . DKK/GBP multiplied with GBP/USD exchange rate (see USD exchange rate for U.K.).

1913 – 1940 from Lawrence H. Officer, "Exchange Rates Between the United States Dollar and Forty-one Currencies,", MeasuringWorth, 2015
http://www.measuringworth.com/exchangeglobal/

1941 – 1945 from Bordo, M. D. & Jonung, L. (1996) Monetary Regimes, Inflation And Monetary Reform: An Essay in Honor of Axel Leijonhufvud.

1946 – 1956 from Reinhart, C. M. & Rogoff, K. S. (2010). From financial crash to debt crisis. (Black) market exchange rate.

1957 – 2020 from International Financial Statistics. IMF eLibrary. Nominal Exchange Rate " Exchange Rates, National Currency Per U.S. Dollar, End of Period, Rate".

Peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1-2, all 3-6=0); broad peg category including crawling pegs.

2008 – 2020 extension of of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1-2, all 3-6=0); broad peg category including crawling pegs.

Strict peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1, all 2-6=0); strict peg category excluding crawling pegs.

2008 – 2020 extension of of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1, all 2-6=0); strict peg category excluding crawling pegs.

Exogenous monetary policy shocks

Exogenous variation in the short-term interest rate from Òscar Jordà, Moritz Schularick, Alan M. Taylor and Felix Ward, 2019. "Global financial cycles and risk premiums". IMF Economic Review, Volume 67 Number 1, pp. 109-150, which uses the identification strategy using local projection with instrumental variables laid out in Òscar Jordà, Moritz Schularick and Alan M. Taylor, 2020. "The effects of quasi-random monetary experiments". Journal of Monetary Economics 112: 22-40.

House prices (nominal index, 1990=100)

1875 – 2012 from Knoll et al. (2014). No price like home: Global house prices, 1870-2012. Year average values. Year average values.

2013 - 2020 from OECD housing prices database. Nominal series. Chain-linked.

Unemployment rate (percent)

1874 – 1899: from Abildgren, Kim. 2009. Monetary Regimes and the Endogeneity of Labour Market Structures – Empirical Evidence from Denmark 1875-2007, European Review of Economic History, Vol. 13(2), pp. 199-218. Series: Unemployment rate; percent of labor force. Chainlinked.

1900 – 1972: from Abildgren, Kim. 2019. A Chart & Data Book on the Monetary and Financial History of Denmark. Series: Unemployment rate; percent of labor force. Chainlinked.

1973 – 2020: from ILOSTAT (2021), Table: "Unemployment rate by sex and age (%) - Annual" based on the EU Labour force survey accessible online at: https://ilostat.ilo.org/data/.

Wages (index, 1990=100)

1870 - 1913 International Historical Statistics. Europe's Labour Force – Money/Wages in Industry. Hourly wages of males. Chainlinked.

1914 - 1937 from Abildgren, Kim. 2009. Monetary Regimes and the Endogeneity of Labour Market Structures – Empirical Evidence from Denmark 1875-2007, European Review of Economic History, Vol. 13(2), pp. 199-218. Series Real hourly earnings in industry 1875-2007, before tax, 1875=100. Adjusted to nominal by using the CPI series also from Abildgren, Kim. A Chart & Data Book on the Monetary and Financial History of Denmark, Working Paper, 30 May 2017 (accessible online at https//sites.google.com/view/kim-abildgren/historical-statistics). Chainlinked.

1938 - 1989 International Historical Statistics. Europe's Labour Force – Money/Wages in Industry. Hourly wages in manufacturing. Chainlinked

1990 - 2020 OECD. OECD statistics. Average annual wages. Current prices. Levels. Accessible online at http//stats.oecd.org/.

Credit Data (billions DKK)

Total loans to non-financial private sector

1870–1951 from H.C. Johansen (1985), Dansk Historisk Statistik 1814–1980. Table 6.6, Series 2 "Domestic bills of exchange"; Series 4 "Other loans". and K. Abildgren (2006), Monetary Trends and Business Series in Denmark 1875 – 2005, Danmarks Nationalbank. Working Papers 43/2006. Appendix B, Table A.2 and Table A.3, Series "Loans".

1951 – 2005 from K. Abildgren (2007), Financial Liberalization and Credit Dynamics in Denmark in the Post–World War II Period, Danmarks Nationalbank, Working Papers 47/2007. Appendix B, Table B.1 and B.2, Series "Commercial lending" and Series "Private lending"

2006 – 2013 growth rate from Statistics Denmark (2013), "DNSEKT3: The MFI–sectors domestic lending and deposits by balance post item, sector, data type and currency" (accessible at http://www.statbank.dk/).

2014 – 2020 growth rate from Statistics Denmark (2021), "DNMUDL: Loans in total from banks and mortgage banks to households and non-financial cor by currency, data type, reporting institution, sector and time". Sum of Loans for "Non-financial corporations and households in

total" for Banks and Mortgage banks at December of each year. All currency converted in Danish Krona (accessible at http://www.statbank.dk/).

Mortgage loans to non-financial private sector

1875–1980 from K. Abildgren (2006), Monetary Trends and Business Cycles in Denmark 1875–2005, Denmarks Nationalbank Working Papers 2006 43, Denmarks Nationalbank, Copenhagen .Appendix C "Data", Table A.3 "Financial balance sheet, mortgage–credit institutes, end–of–year 1875–2005, million kroner", series "Financial assets – loans", pp81 (accessible online at http://www.nationalbanken.dk/).

1981 – 1992 from Danmarks Nationalbank (June 2011), Udlån 1981 – 2010, provided by Mar. Egstrup of Danmarks Nationalbank. RI, series "Husholdninger", series "Øvrige".

1993 – 2013 from Statistics Denmark, "DNSEKT2: Mortgage–credit institutes domestic lending by sector and currency" (accessible online at http://www.statbank.dk/).

2014 – 2020 growth rate from Statistics Denmark (2021), "DNMUDL: Loans in total from banks and mortgage banks to households and non-financial cor by currency, data type, reporting institution, sector and time". Mortgage banks. "Non-financial corporations and households in total" at December of each year. All currency converted in Danish Krona. (accessible at http://www.statbank.dk/).

Total Loans to Households

1951 – 2005 from Abildgren (2007), ibid. Appendix B, Table B.1 and B.2, series "Private lending".

2006 – 2020 Residual of Total loans to non-financial private sector and Total Loans to Business

Total Loans to Business

1951 – 2005 from Abildgren (2007), ibid. Appendix B, Table B.1 and B.2, Series "Commercial lending".

2006 – 2013 growth rate from Statistics Denmark, ""DNSEKT3: The MFI–sectors l domestic lending and deposits by balance post item, sector, data type and currency" (accessible online at http://www.statbank.dk/).

2014 – 2020 growth rate form Statistics Denmark (2021), "DNMUDL: Loans in total from banks and mortgage banks to households and non-financial cor by currency, data type, reporting institution, sector and time". Sum of loans for "Non-financial corporations" for Banks and Mortgage banks at December for each year. All currency converted in Danish Krona.

Corporate Debt

1875–1950 business loans of banks proxied by lending and domestic bills of exchange from commercial banks from Hans Christian Johannsen (1985) "Dansk Historisk Statistik 1814–1980", Table 6.6.

1951–1993 from Kim Abildgren (2007) "Financial Liberalization and Credit Dynamics in Denmark in the Post–World War II Period", Danmarks Nationalbank, Working Papers 47/2007, Appendix B, Table B.1 and B.2, Series "Commercial lending".

1994–2013 OECD financial accounts data on total non-equity liabilities of the private non-financial business sector.

2014–2018 eurostat financial accounts data on total non-equity liabilities of the private non-financial business sector.

2019-2020 bank loans to business and capital market debt from “Credit to the non-financial sector” database of the Bank of International Settlements (accessible online at https: //www.bis.org/statistics/totcredit.htm).

Bank balance sheet ratios

(Ratios in %, Underlying data in billions DKK)

Capital ratio

Capital ratio = Capital / Total Assets

Total Assets (billions DKK)

1870-1920 Statistike Underslógelser, Nr. 24 Kreditmarkedsstatistik, Danmarks Statistik, Kobenhavn 1969. Tilsammen. Aggregated bank-level data from end-financial year balance sheets of commercial banks published over the year. Chainlinked.

1921-1989 Danmarks Statistik, Statistisk Årbog (various issues). Tilsammen/Total Assets/Total Liabilities of commercial banks + Tilsammen/Total Assets/Total Liabilities of savings banks.

1990-2015 Danmarks Statistik, Statistisk Årbog (various issues). All banks. Total Assets. Levels.

2016-2020 Danmarks Nationalbank, StatBank Denmark, Series: “DNBALD: Balance sheet items of the MFI sector, excl. Danmarks Nationalbank by disaggregated balance sheet items, data type and reporting institution”, Total Assets, Outstanding amounts, Banks, December values. Chainlinked.

Capital (billions DKK)

1870-1920 Statistike Underslógelser, Nr. 24 Kreditmarkedsstatistik, Danmarks Statistik, Kobenhavn 1969. “Share capital“ + “Reservefonds”. Aggregated bank-level data from end-financial year balance sheets of commercial banks published over the year. Chainlinked with difference in capital ratio in 1920.

1921-1989 Danmarks Statistik, Statistisk Årbog (various issues). “Capital social” + “Reserve legal” + “Autres reserves” or “Share capital” + “Reserves” of commercial banks and “Gavefonds” + “Kursreguleringsfond“+ “Egentlige reservefonds “ or “Share capital” + “Reserves” of savings banks.

1990-2015 Danmarks Statistik, Statistisk Årbog (various issues). “Share capital” + “Reserves”. All banks. Levels.

2016-2020 Danmarks Nationalbank, StatBank Denmark, Series: “DNBALD: Balance sheet items of the MFI sector, excl. Danmarks Nationalbank by disaggregated balance sheet items, data type and reporting institution”, Capital and reserves, Outstanding amounts, Banks, December values. Chainlinked.

Loans-to-Deposits ratio

Loans-to-Deposits ratio = Loans / Deposits

Deposits (billions DKK)

1870-1920 Statistike Underslógelser, Nr. 24 Kreditmarkedsstatistik, Danmarks Statistik, Kobenhavn 1969. „Folio, indlan, kontokurant og sparekasse-indskud”. Aggregated bank-level data from end-financial year balance sheets of commercial banks published over the year. Chainlinked.

1921-1974 Danmarks Statistik, Statistisk Årbog (various issues). Commercial banks, sum of items “Folio Konto/Sight Deposits”+”Comptes Courants” +”Depots/Deposits” +”Deposits on bank books” +”Deposits one month or longer” (labels change over time) + savings banks “Depositor’s Balances”.

1975-1989 Danmarks Statistik, Statistisk Årbog (various issues). Commercial banks and savings banks. “Deposits” or “Deposits (at call or less than one month's notice) + Deposits (at one month's or longer notice)”.

1990-2015 Danmarks Statistik, Statistisk Årbog (various issues). All banks. “Deposits” or “Deposits (at call or less than one month's notice) + Deposits (at one month's or longer notice)”.

2016-2020 Danmarks Nationalbank, StatBank Denmark, Series: “DNBALD: Balance sheet items of the MFI sector, excl. Danmarks Nationalbank by disaggregated balance sheet items, data type and reporting institution”, Deposits, Outstanding amounts, Banks, December values. Chainlinked.

Loans (billions DKK)

1870-1920 Statistike Underslógelser, Nr. 24 Kreditmarkedsstatistik, Danmarks Statistik, Kobenhavn 1969 Aggregated bank-level data from end-financial year balance sheets of commercial banks published over the year. Loans. Chainlinked.

1921-1974 Abildgren, Kim. A Chart & Data Book on the Monetary and Financial History of Denmark, Working Paper. Series S007A “Total domestic non-bank credit extended by resident deposit banks”. Chainlinked

1975-1989 Danmarks Statistik, Statistisk Årbog (various issues). Savings and commercial banks. Sum of “Overdraft facilities”, “Bills of exchange”, “Construction loans”, “Mortgage Loans” and “Other Loans”.

1990-2015 Danmarks Statistik, Statistisk Årbog (various issues). All banks. “Loans”.

2016-2020 Danmarks Nationalbank, StatBank Denmark, Series: “DNBALD: Balance sheet items of the MFI sector, excl. Danmarks Nationalbank by disaggregated balance sheet items, data type and reporting institution”, Loans, Outstanding amounts, Banks, December values. Chainlinked.

Noncore ratio

Noncore ratio = (Total Assets – Capital - Deposits)/(Total Assets - Capital)

Finland

(Data in millions FIM (New Markka))

Macro Data

Population

1870 – 2020 from Statistics Finland (2021). Table “Population according to age (5-year) and sex in the whole country 1865 - 2020 “(accessible online at http://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin/StatFin__vrm__vaerak/).

GDP (converted to millions FIM (New Markaa))

1870 – 1974 from Hjerppe (1994). Finland's Historical National Accounts. Table: 2B. Gross domestic product (accessible online at http://www.suomenpankki.fi). Levels.

1975 – 2020 from Statistics Finland. Annual national accounts. (in Euros, converted into FIM with official conversion rate) http://www.stat.fi/til/vtp/. Levels.

Real GDP per capita (PPP, 1990 Int$, Maddison)

1870 – 2010 from The Maddison-Project, http://www.ggdc.net/maddison/maddison-project/home.htm, 2013 version. http://www.ggdc.net/maddison/maddison-project/home.htm . Level.

2011 – 2020 from International Monetary Fund. World Economic Outlook. Series: Gross domestic product based on purchasing-power-parity (PPP) per capita GDP. Chain-linked.

Real GDP per capita (index, 2005=100)

1870 – 2004 from R. Barro & and J. Ursúa (2010), Macroeconomic Data Set, Harvard University, Cambridge MA (accessible online at http://scholar.harvard.edu/barro/publications/barro–ursua–macroeconomic–data).

2005 – 2020 growth rate calculated from World Bank (2021), Category "Economic policy and external debt," Series "GDP per capita (constant 2010 US$) (accessible online at http://data.worldbank.org/indicator).

Real consumption per capita (index, 2006=100)

1870 – 2009 from Robert C. Barro and José F. Ursúa (2010), Barro–Ursúa Macroeconomic Data. For respective sources see original data set: http://rbarro.com/data-sets/.

2010 – 2020 from World Bank household final consumption expenditure per capita (constant 2010 US$). Chain linked.

Investment-to-GDP ratio

1870 – 1950 from National Statistical Office of Finland (2007), Statistical Yearbook (accessible online at http://pxweb2.stat.fi/sahkoiset_julkaisut/vuosikirja2007/alku.htm).

1951 – 2020 data from International Monetary Fund, International Financial Statistics. Data Report "National Accounts", Series "Gross Fixed Capital Formation, Nominal" divided by GDP from JST dataset (accessible online at https://data.imf.org/).

Consumer prices (index, 1990=100)

1870 – 1996 from A. Taylor (2002), A Century of Purchasing–Power Parity, Review of Economics and Statistics, 84(1), pp. 139 – 150.

1997 – 2020 from International Monetary Fund World Economic Outlook (April 2019). Series "Inflation, average consumer prices" (accessible online at https://www.imf.org/external/pubs/ft/weo/2019/01/weodata/index.aspx). Chainlinked.

Narrow Money (converted to millions FIM (New Markaa))

1870 – 1987 from Mitchell, B. (2013). International Historical Statistics. Series: Sum of Currency in circulation + commercial bank deposits. Level.

1988-2004 from Bank of Finland (2012). Series sent by email, contact person Essi Tamminen from Bank of Finland – essi.tamminen@bof.fi. (see excel file in Data Sources) Series: M1. Level.

2005 – 2020 from Bank of Finland. Statistics. MFI balance sheet (loans and deposits) and interest rates, tables, Finnish contribution to euro area monetary aggregates and their main counterparts. M1: Contribution to euro area M1 = Overnight deposits. redenominated from € into FIM. Level.

Broad Money (converted to millions FIM (New Markaa))

1870-1899 from Bank of Finland (2012). Series sent by email, contact person Essi Tamminen from Bank of Finland – essi.tamminen@bof.fi. (see excel file in Data Sources) Series: M2 (historical series). redenominated from old FIM into new FIM. Level.

1900 – 1916 from Bank of Finland (2012). Series sent by email, contact person Essi Tamminen from Bank of Finland – essi.tamminen@bof.fi. (see excel file in Data Sources) Series: M2 (not historical). redenominated from old FIM into new FIM. Level.

1917 – 1987 from Mitchell, B. (2013). International Historical Statistics. Series: Sum of Currency in circulation + commercial bank deposits + savings banks deposits (sum of all available). Level.

1988 – 2020 from Bank of Finland. Statistics. Statistics, MFI balance sheet (loans and deposits) and interest rates, tables, Finnish contribution to euro area monetary aggregates and their main counterparts: Contribution to euro area M2 (accessible online at http://www.suomenpankki.fi/). redenominated from € into FIM. Level.

Short–term interest rate (nominal, percent per year)

1870 – 1952 from Autio, Jaakko. Korot Suomessa 1862-1952. Suomen Pankki, 1996.

1953 – 1977 Post–WWII data from International Monetary Fund (2014), International Financial Statistics database (IFS). Section “Economic indicators”, Series “Interest Rates – Discount Rate” (accessible online at http://elibrary–data.imf.org/).

1978 – 1986 from Bordo, Michael D., Barry Eichengreen, Daniela Klingebiel, and Maria Soledad Martinez–Peria. 2001. “Is the Crisis Problem Growing More Severe?” Economic policy: A European Forum 32: 51–75.

1987-2013 from Federal Reserve Bank of St. Louis; 3-Month or 90-day Rates and Yields: Interbank Rates for Finland; IR3TIB01FIA156N; End of period rats (First date of the year used as last date of previous year).

2014 – 2017 International Monetary Fund (2019). International Financial Statistics. Interest Rates – Money Market Rates.

2018 – 2020 OECD Short-term interest rates, Total, % per annum.

Long–term interest rate (nominal, percent per year)

1870 – 1913 from Autio, Jaakko. Korot Suomessa 1862-1952. Suomen Pankki, 1996.

1914 – 1920 from Investor’s Monthly Manual. Current yield of 4.5% Finland Government Railway Bond. Final redemption: 1965. December values.

1921 – 1938 from Autio, Jaakko. Korot Suomessa 1862-1952. Suomen Pankki, 1996.

1948 – 1986 from Alhonsuo, Sampo Joukkovelkakirjalainojen tuotto Suomessa 1948-1986. Helsinki: Bank of Finland, Discussion paper 10/89.

1987 from Bordo, Michael D., Barry Eichengreen, Daniela Klingebiel, and Maria Soledad Martinez–Peria. 2001. “Is the Crisis Problem Growing More Severe?” Economic policy: A European Forum 32: 51–75.

1988 – 2014 from International Monetary Fund (2019). International Financial Statistics (IFS). Data reports “Economic indicators (IFS)”, Section “Interest rates”, Series “Government Bonds.” (accessible online https://data.imf.org/)

2015 – 2020: OECD (2020). OECD iLibrary. Long-term interest rates doi: 10.1787/662d712c-en, average of monthly values.

Current Account (converted to millions FIM (New Markaa))

1870 – 1945 calculated (percentage multiplied by NGDP) from Jones & M. Obstfeld (1997), Saving, Investment, and Gold: A Reassessment of Historical Current Account Data. In: G. Calvo, R. Dornbusch & M. Obstfeld (eds.)(2000), Money, Capital Mobility, and Trade: Essays in Honor of Robert A. Mundell, MIT Press, Cambridge. Series: current account (including gold flows). Note: series in old Finnish Markka; divide by 100 to get to new FIM. Level.

1946-1979 from Mitchell, B. (2013). International Historical Statistics. National Accounts – Balance of Payments – Overall current balance. Partly in USD -> redenominated in to new Finnish Markka with the exchange rate from JST dataset. Note: partly series in old Finnish Markka. Divide by 100 to redenominate into new FIM. Level.

1980 – 2020 from IMF World Economic Outlook Database. Path “Advanced Economies, Euro Area, Finland, Current Account Balance (% of GDP)” (accessible online at http://www.imf.org/external). Series multiplied with nominal GDP series (also from WEO). Level.

Imports & Exports (converted to millions FIM (New Markaa))

1870 – 1883 growth rate calculated from R. Hjerppe (1996), Finnish National Accounts, 1860–1994, Bank of Finland, Helsinki. Table 10a “Foreign Trade 1860 – 1985”, Series “Exports” and Series “Imports”, p259.

1884 – 2012 from Tull Customs (2013), Finnish Customs. Section “Foreign trade statistics”, Subsection “Tables – Time Series”, Table “Imports, exports and trade balance in 1884–2012” (accessible online at http://tulli.fi/en/statistics/time-series).

2013 – 2020 from Tull Customs, International Trade , Imports, Exports and trade balance, 1884 - 2020” (accessible online https://tulli.fi/en/statistics/time-series).

Government Revenues (converted to millions FIM (New Markaa))

1882 – 1974 from Mitchell, Brian (2013), Table “Government revenue and main tax yield”. Levels.

1975 – 2020 from Statistics Finland (2021), Sector Accounts 1975–2012, S1311 Central Government, TOTREV Total Revenue (accessible online at http://www.stat.fi/tup/suoluk/suoluk_valtiontalous_en.html). Levels.

Government Expenditure (converted to millions FIM (New Markaa))

1882 – 1974 from Mitchell, Brian (2013), Table “Total Central Government Expenditure”. Levels.

1975 – 2020 from Statistics Finland (2021), Sector Accounts 1975–2012, S1311 Central Government, TOTEXP Total Expenditure (accessible online at http://www.stat.fi/tup/suoluk/suoluk_valtiontalous_en.html). Levels.

Public debt-to-GDP ratio

1914 – 1946 from United Nations (1948). Public Debt. p.60 Table I. Column: Public Debt (at end of fiscal year) Total Debt - Amount outstanding

1947 – 1969 from Statistics Finland, Statistical Yearbook of Finland, various issues.

1970 – 2020 from European Commission, Economic and Financial Affairs, AMECO database, Chapter 18 Gross Public Debt.18.2 – Based on ESA 2010 and former definitions. Gross Public Debt (linked series) (UDGGL). Percentage of GDP at market prices (excessive deficit procedure) (data accessible online at http://ec.europa.eu/economy_finance/db_indicators).

USD exchange rate (local currency/USD)

1870 – 1945 from Autio, Jaakko. "Suomen Pankin Keskustelualoitteita: Valuuttakurssit Suomessa 1864-1991, Katsaus ja tilastosarjat" (1992), 1-246. FIM/GBP multiplied with GBP/USD exchange rate (see USD exchange rate of the U.K.)

1946 - 1960 from Reinhart, C. M. & Rogoff, K. S. (2010). From financial crash to debt crisis. (Black) market exchange rate.

1961 - 2020 from International Financial Statistics. IMF eLibrary. Nominal Exchange Rate (domestic currency / US Dollar) (end of period).

Note: We assume a Belgian franc-euro exchange rate of 5.94573 where necessary.

Peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1-2, all 3-6=0); broad peg category including crawling pegs.

2008 – 2020 extension of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1-2, all 3-6=0); broad peg category including crawling pegs.

Strict peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper

(accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1, all 2-6=0); strict peg category excluding crawling pegs.

2008 – 2020 extension of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1, all 2-6=0); strict peg category excluding crawling pegs.

Exogenous monetary policy shocks

Exogenous variation in the short-term interest rate from Òscar Jordà, Moritz Schularick, Alan M. Taylor and Felix Ward, 2019. "Global financial cycles and risk premiums". IMF Economic Review, Volume 67 Number 1, pp. 109-150, which uses the identification strategy using local projection with instrumental variables laid out in Òscar Jordà, Moritz Schularick and Alan M. Taylor, 2020. "The effects of quasi-random monetary experiments". Journal of Monetary Economics 112: 22-40.

House prices (nominal index, 1990=100)

1905 – 2012 from Knoll et al. (2014). No price like home: Global house prices, 1870-2012. Year average values.

2013 - 2020 from OECD housing prices database. Nominal series. Chain-linked.

Unemployment rate (percent)

1920 – 1938 and 1950 – 1979 from Maddison, Angus (1982), Phases of Capitalist Development. Table 6 – Unemployment as a percentage of total labour force. Oxford University Press. Chainlinked.

1980 – 1990 from OECD (2015), OECD.Stat. Database "Labour", "Labour Force Statistics", Dataset "ALFS summary tables", "Annual labour force statistics" (accessible online http//stats.oecd.org/).

1991 – 2020 from ILOSTAT (2021), Table "Unemployment rate by sex and age" based on the EU Labour force survey (LFS) accessible online at https//ilostat.ilo.org/data/.

Wages (index, 1990=100)

11870 - 1947 Riitaa Hjerppe (1989) "The Finnish Economy, 1860-1985. Growth and structural change." Page 274, table 12A, Manufacturing wages. Chainlinked.

1948 - 1989 International Monetary Fund International Financial Statistics database (IFS). Labor Markets, Manufacturing Wage Rates, Index. online at http//data.imf.org/. Chainlinked.

1990 - 2020 OECD. OECD statistics. Average annual wages. Current prices. Levels. Accessible online at http//stats.oecd.org/.

Credit Data (converted to millions FIM (New Markaa))

Total loans to non-financial private sector

1870 – 2013 from Bank of Finland (2012), ibid. Series "Total loans".

2014 – 2020 from Bank of Finland (2021). Statistics. Tables. Finnish MFI euro-denominated loans withing euro area, by sector. Sum of annual total outstanding loans of “Non-financial corporations” and “Households”.

Mortgage loans to non-financial private sector

1927 – 1931 from Bank of Finland (1933), The Volume of Credits in Finland, in Bank of Finland (1934), Monthly Bulletin 07/1933, p.27–31. Table “The volume of credits in Finland at the end of 1927–1931, by nature of credit, real estate credit”, p. 30.

1934 – 1978 from Statistics Finland (various), Statistical Yearbook of Finland (various issues). Table “Rahalaitosten yleisölle antamat lainat vakuuden mukaan vuosien [years] päättyessä.” – "Prêts consentis par les établissements bancaires selon leur garantie à la fin des années", later translated into English as “Loans accorded to the public by banking establishments according to securities at 31 December”. Addition of mortgage lending of each respective group of banks (commercial banks, savings banks, mortgage banks, post office savings bank, and cooperative credit societies).

1979 – 2002 from Statistics Finland (2012), Housing Loans to Households (incl. state and insurance company loans), provided by Essi Tamminen from the Bank of Finland essi.tamminen@bof.fi, +358 10 831 2395.

2003 – 2013 from Bank of Finland (2019), Finnish MFI euro–denominated loans to euro area households, by purpose, housing loans (accessible online at http://www.suomenpankki.fi/en/tilastot/pages/default.aspx).

2014 – 2020 from Bank of Finland (2021), Finnish MFIs' euro-denominated deposits and loans of euro area residents: stock, Loans, To Households, Housing Loans (accessible online at https://www.suomenpankki.fi/en/).

Total Loans to Households

1948 – 1969 residual of Total loans to non-financial private sector and Total Loans to Business.

1970 – 1994 from Statistics Finland, Financial Accounts Stocks 1970–1994. Sector “Households”, Data “Liabilities”, Instrument “AF4 loans” (accessible online at http://193.166.171.75/Database/StatFin/kan/rtp/rtp_en.asp).

1995 – 2010 from Statistics Finland. National Accounts 2018. Financial Accounts 2017. Appendix table 2. “Financial liabilities Households, million EUR” (converted to Finnish markka). Loans. (Accessible online at https://www.stat.fi/til/rtp/index_en.html).

2011 – 2020 from Statistics Finland. National Accounts 2021. Appendix table 2. “Financial liabilities Households, million EUR” (converted to Finnish markka). Loans. (Accessible online at https://www.stat.fi/til/rtp/tie_en.html).

Total Loans to Business

1948 – 1969 calculated from Statistics Finland (various), Statistical Yearbook (various issues). Table "Loans by the credit institutions by groups of borrowers on 31 December", Series “Total w/o municipalities and parishes”. Base is 1970 value.

1970 – 2020 residual of Total loans to non-financial private sector and Total Loans to Households.

Corporate Debt

1948–1969 calculated from Statistics Finland (various), Statistical Yearbook (various issues). Table ”Loans by the credit institutions by groups of borrowers on 31 December”, Series “Total w/o municipalities and parishes”. Base is 1970 value.

1970–1994 bank loans to business and capital market debt from “Credit to the non-financial sector” database of the Bank of International Settlements (accessible online at https: //www.bis.org/statistics/totcredit.htm).

1995–2013 financial accounts data on total non-equity liabilities of the private non-financial business sector.

2014–2019 eurostat financial accounts data on total non-equity liabilities of the private non-financial business sector.

Bank balance sheet ratios

(Ratios in %, Underlying data in millions FIM (New Markka))

Capital ratio

Capital ratio = Capital / Total Assets

Total Assets (converted to millions FIM (New Markka))

1873-1903 Bank of Finland, Historical Monetary Financial Institutions Time Series, sum of liability items of commercial banks (Risto Herrala (1999) Banking Crises vs Depositor Crises: the Era of the Finnish Markka, Scandinavian Economic History Review vol 47, No 2, 5-22). Chainlinked.

1904-2013 Bank of Finland, Historical Monetary Financial Institutions Time Series, Sum of liability items. See Risto Herrala (1999) Banking Crises vs Depositor Crises: the Era of the Finnish Markka, Scandinavian Economic History Review vol 47, No 2, 5-22). Levels.

2014-2020 Bank of Finland, Aggregated balance sheet of Finnish MFIs excluding Bank of Finland. Total.

Capital (converted to millions FIM (New Markka))

1873-1903 Bank of Finland, Historical Monetary Financial Institutions Time Series, Capital of commercial banks (Risto Herrala (1999) Banking Crises vs Depositor Crises: the Era of the Finnish Markka, Scandinavian Economic History Review vol 47, No 2, 5-22). Chainlinked with difference in capital ratio.

1904-2013 Bank of Finland, Historical Monetary Financial Institutions Time Series, Capital (Risto Herrala (1999) Banking Crises vs Depositor Crises: the Era of the Finnish Markka, Scandinavian Economic History Review vol 47, No 2, 5-22). Levels. 1990/1991 data are interpolated capital ratios. Banks could transfer 90% of loan loss reserves to reserve fund accounts in 1990. After 1991 new rules in place (Vihriälä, Vesa (1997), Banks and the Finnish credit cycle 1986-1995, Appendix 1, Bank of Finland monographs).

2014-2020 Bank of Finland, Aggregated balance sheet of Finnish MFIs excluding Bank of Finland. Capital and reserves.

Loans-to-Deposits ratio

Loans-to-Deposits ratio = Loans / Deposits

Deposits (converted to millions FIM (New Markka))

1873-1903 Bank of Finland, Historical Monetary Financial Institutions Time Series (Risto Herrala (1999) Banking Crises vs Depositor Crises: the Era of the Finnish Markka, Scandinavian Economic History Review vol 47, No 2, 5-22). Commercial banks, “Deposits to non-MFIs”, Chainlinked.

1904-2013 Bank of Finland, Historical Monetary Financial Institutions Time Series, Risto Herrala (1999) Banking Crises vs Depositor Crises: the Era of the Finnish Markka, Scandinavian Economic History Review vol 47, No 2, 5-22). “Deposits to non-MFIs”, Levels.

2014-2020 Bank of Finland Aggregated balance sheet of Finnish MFIs excluding Bank of Finland. Deposits of Euro Area residents. Chainlinked.

Loans (converted to millions FIM (New Markka))

1873-1903 Bank of Finland, Historical Monetary Financial Institutions Time Series (Risto Herrala (1999) Banking Crises vs Depositor Crises: the Era of the Finnish Markka, Scandinavian Economic History Review vol 47, No 2, 5-22). Commercial banks, “Loans to non-MFIs”, Chainlinked.

1904-2013 Bank of Finland, Historical Monetary Financial Institutions Time Series, Risto Herrala (1999) Banking Crises vs Depositor Crises: the Era of the Finnish Markka, Scandinavian Economic History Review vol 47, No 2, 5-22. “Loans to non-MFIs”, Levels.

2014-2020 Bank of Finland Aggregated balance sheet of Finnish MFIs excluding Bank of Finland. Loans to Euro Area residents. Chainlinked.

Noncore ratio

Noncore ratio = (Total Assets – Capital - Deposits) / (Total Assets - Capital)

FRANCE

(Data in billions FRF (new francs))

Macro Data

Population

1870 – 2008 from Angus Maddison Database (2008), ibid. Table 1 “Population levels, 1AD–2030AD” (accessible online at http://www.ggdc.net/maddison/Historical_Statistics/horizontal–file_02–2010.xls).

2009 – 2016 growth rates from International Monetary Fund (Aug, 2019), World Economic Outlook. Subject “People – population” (base year: 2008) (accessible at www.imf.org).

2017 – 2020 growth rates from International Monetary Fund, World Economic Outlook. Subject “People – population” (base year: 2008) (accessible at www.imf.org).

GDP (converted to billions FRF (new francs))

1870 – 1938 data from Mitchell, Brian (2013), International Historical Statistics: Europe 1750 – 2010, Pallgrave MacMillen, London. No data for 1914 – 1919.

1914 – 1919 & 1939 – 1949 Bordo, Michael D., Barry Eichengreen, Daniela Klingebiel, and Maria Soledad Martinez–Peria. 2001. “Is the Crisis Problem Growing More Severe?” Economic policy: A European Forum 32: 51–75.

1950 – 2020 data from International Monetary Fund (2021), International Financial Statistics. Data Report “Economic indicators”, Series “Gross domestic product (in millions) – GDP nominal” (accessible online at https://data.imf.org/).

Real GDP per capita (PPP, 1990 Int$, Maddison)

1870 – 2010 from The Maddison-Project, http://www.ggdc.net/maddison/maddison-project/home.htm, 2013 version. http://www.ggdc.net/maddison/maddison-project/home.htm . Level.

2011 – 2020 from International Monetary Fund. World Economic Outlook. Series: Gross domestic product based on purchasing-power-parity (PPP) per capita GDP. Chain-linked.

Real GDP per capita (index, 2005=100)

1870 – 2004 from R. Barro & and J. Ursúa (2010), Macroeconomic Data Set, Harvard University, Cambridge MA (accessible online at http://scholar.harvard.edu/barro/publications/barro–ursua–macroeconomic–data).

2005 – 2020 growth rate calculated from World Bank (2021), Category "Economic policy and external debt," Series "GDP per capita (constant 2010 US$) (accessible online at http://data.worldbank.org/indicator).

Real consumption per capita (index, 2006=100)

1870 – 2009 from Robert C. Barro and José F. Ursúa (2010), Barro–Ursúa Macroeconomic Data. For respective sources see original data set: http://rbarro.com/data–sets/..

2010 – 2020 from World Bank household final consumption expenditure per capita (constant 2010 US$). Chain linked.

Investment-to-GDP ratio

1870 – 1918 data from Mitchell, Brian (2007), International Historical Statistics: Europe 1750 – 2005, Pallgrave MacMillen, London.

1920 – 1924 from van Meerten, Michelangelo. Capital formation in Belgium, 1900-1995. Leuven University Press, 2003.

1925 – 1950 data from Mitchell, Brian (2007), International Historical Statistics: Europe 1750 – 2005, Pallgrave MacMillen, London. (Note: no data for 1945).

1950 – 2020 data from International Monetary Fund, International Financial Statistics. Data Report "National Accounts", Series "Gross Fixed Capital Formation, Nominal" (accessible online at https://data.imf.org/).

Consumer prices (index, 1990=100)

1870 – 1965 from Mitchell, B. (2013) International Historical Statistics: Europe 1750-2005. Palgrave MacMillen, London. CPI.

1966 – 2020 from International Monetary Fund International Financial Statistics (2021). Prices, Consumer Price Index, All items, Index. Rebased: 1990=100 (accessible online at https://data.imf.org/)

Narrow Money (converted to billions FRF (new francs))

1870 – 1913 & 1920 - 1949 from M. Saint Marc (1983). Histoire monétaire de la France 1800-1918. pp. 37-38. Series M1. Level.

1950 – 1977 Mitchell, B. (2013). International Historical Statistics. Series M1. Level.

1978 – 2020 Banque de France. Monthly monetary statistics. M1. Average of monthly values. Online: http://webstat.banque-france.fr/en/home.do. Level.

Broad Money (converted to billions FRF (new francs))

1870 – 1913 & 1920 - 1949 from M. Saint Marc (1983). Histoire monétaire de la France 1800-1918. Sum of series M1 (pp.37-38) + Savings ("Caisses d'epargne Solde des deposants", pp. 55-57). Level.

1950 – 1979 Mitchell, B. (2013). International Historical Statistics. Series M2. Level.

1980 – 2020 Banque de France. Monthly monetary statistics. M2 France. Dec values. Online: http://webstat.banque-france.fr/en/home.do. Level.

Short–term interest rate (nominal, percent per year)

1870 – 1879 Neal, Larry D., and Marc D. Weidenmier. "Crises in the global economy from tulips to today." Globalization in historical perspective. University Of Chicago Press, 2003. 473-514. Open Market Rate, Monthly, End of Year Value. (accessible online at http://ebutts05.tripod.com/nealweidenmiergsd/)

1880 – 1914 from Bordo, Michael D., Barry Eichengreen, Daniela Klingebiel, and Maria Soledad Martinez–Peria. 2001. "Is the Crisis Problem Growing More Severe?" Economic policy: A European Forum 32: 51–75.

1922 – 1924 from Statistisches Handbuch der Weltwirtschaft 1936. p.95 Series: Privatdiskont.

1925 – 1939 from Bordo, Michael D., Barry Eichengreen, Daniela Klingebiel, and Maria Soledad Martinez–Peria. 2001. "Is the Crisis Problem Growing More Severe?" Economic policy: A European Forum 32: 51–75.

1939 – 1947 from Homer, S. and R. Sylla (2005). A History of Interest Rates, Fourth Edition. Wiley Finance. Table 63 - Short-term French Interest Rates: Twentieth century. Private discount rate until 1939, money market rate thereafter. Levels.

1948 – 1998 from International Monetary Fund (2012), International Financial Statistics database (IFS). Section "Economic indicators", Series "Interest Rates – money market rate" (accessible online at http://elibrary–data.imf.org/). Levels

1999 – 2016 from International Monetary Fund (2019). International Financial Statistics database (IFS). Section "Economic indicators", Series "Interest Rates – treasury bill rate" (accessible online at http://data.imf.org/).

2017 – 2020 Banque du France. French government debt indicative rates, 3 month, average of daily rates.

Long–term interest rate (nominal, percent per year)

1870 – 1947 from Schmelzing, P. (2020). Eight centuries of global real interest rates, R-G, and the 'suprasecular' decline, 1311-2018. Bank of England Staff Working Paper No. 845.

1948 – 2014 from International Monetary Fund (2019). International Financial Statistics (IFS). Data reports "Economic indicators (IFS)", Section "Interest rates", Series "Government Bonds" (accessible online at http://data.imf.org/).Levels

2015 – 2020: OECD (2020). OECD iLibrary. Long-term interest rates doi: 10.1787/662d712c-en, average of monthly values.

Current Account (converted to billions FRF (new francs))

1870 – 1945 from M. Jones & M. Obstfeld (1997), Saving, Investment, and Gold: A Reassessment of Historical Current Account Data, NBER Working Paper No. 6103, MIT Press, Cambridge MA. France – Current account original. (accessible online at http://www.nber.org/databases. (data missing for 1st and 2nd World Wars). Level

1948 – 1974 from B. Mitchell (2007), International Historical Statistics: Europe 1750 – 2010, Pallgrave MacMillen, London. Level

1975 – 1979 International Monetary Fund (2010), International Financial Statistics. Table "Balance of payments", Series "Balances – current account balance" (accessible online http://elibrary–data.imf.org/). Level

1980 – 2020 International Monetary Fund, World Economic Outlook. % of GDP * nominal GDP = Current Account (available at www.imf.org/external). Level

Imports & Exports (converted to billions FRF (new francs))

1870 – 1947 from B. Mitchell (2007), from B. Mitchell (2007), International Historical Statistics: Europe 1750 – 2005, Pallgrave MacMillen, London.

1948 – 2020 from International Monetary Fund, International Financial Statistics: archive, M10 2021, External Trade, Goods, Value of Exports, Free on Board (FOB), Domestic Currency; External trade, Imports, Goods, Value, Cost, Insurance freight, Domestic Currency.

Government Revenues (converted to billions FRF (new francs))

1870 – 1977 from B. Mitchell (2007), International Historical Statistics: Europe 1750 – 2010, Pallgrave MacMillen, London. Central Government revenue and main tax yields. Levels.

1978 – 2020 from OECD (2021), OECD.Stat. Database "OECD national accounts statistics," Dataset "General government accounts," Table 12 "Government deficit/surplus, revenue, expenditure, and main aggregates," Sector GS1311 "Central government," Measure "Euros, current prices," Series GTR "Total general government revenue" (accessible online at http://www.oecd–ilibrary.org/statistics). Levels.

Government Expenditure (converted to billions FRF (new francs))

1870-1977 from B. Mitchell (2007), International Historical Statistics: Europe 1750 – 2010, Pallgrave MacMillen, London. Total Central Government expenditure. Levels.

1978 – 2020 from OECD (2021), OECD.Stat. Database "OECD national accounts statistics," Dataset "General government accounts," Table 12 "Government deficit/surplus, revenue, expenditure, and main aggregates," Sector GS1311 "Central government," Measure "Euros, current prices," Series GTE "Total general government expenditure" (accessible online at http://www.oecd–ilibrary.org/statistics). Levels.

Public debt-to-GDP ratio

Note: Data for 1880 – 1979 is for central government debt only.

1880 – 1913 from Bordo, M. D. & Jonung, L. (1996) Monetary Regimes, Inflation And Monetary Reform: An Essay in Honor of Axel Leijonhufvud.

1920 - 1938 from United Nations (1948). Public Debt, 1914–1946. Department of Economic Affairs, Lake Success, NY.

1949 – 1977 from Abbas et. Al (2010). A Historical Public Debt Database. IMF working paper. www.imf.org. Levels.

1978 – 1979 from INSEE: "Annuaire Rétrospectif de la France, Séries Longues, 1948–1988." Publication is accessible at http://gallica.bnf.fr/)

1980 – 2020 from European Commission, Economic and Financial Affairs, AMECO database, Chapter 18 Gross Public Debt.18.2 – Based on ESA 2010 and former definitions. Gross Public Debt (linked series) (UDGGL). Percentage of GDP at market prices (excessive deficit procedure) (data accessible online at http://ec.europa.eu/economy_finance/). Levels

USD exchange rate (local currency/USD)

1870 - 1912 from Denzel. M.A. (2010). Handbook of World Exchange Rates, 1590-1914. . FRF/ GBP exchange rate multiplied with GBP/USD exchange rate (see USD exchange rate of the U.K.)

1913 – 1940 from Lawrence H. Officer, "Exchange Rates Between the United States Dollar and Forty-one Currencies," MeasuringWorth, 2015
http://www.measuringworth.com/exchangeglobal/

1941 – 1945 from Bordo, M. D. & Jonung, L. (1996) Monetary Regimes, Inflation And Monetary Reform: An Essay in Honor of Axel Leijonhufvud.

1946 - 1958 from Reinhart, C. M. & Rogoff, K. S. (2010). From financial crash to debt crisis. (Black) market exchange rate.

1959 - 2020 from International Financial Statistics. IMF eLibrary. Nominal Exchange Rate (domestic currency / US Dollar) (end of period).

Note: We assume a French franc-euro exchange rate of 6.55957 where necessary.

Peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1-2, all 3-6=0); broad peg category including crawling pegs.

2008 – 2020 extension of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1-2, all 3-6=0); broad peg category including crawling pegs.

Strict peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2020 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1, all 2-6=0); strict peg category excluding crawling pegs.

2008 – 2020 extension of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1, all 2-6=0); strict peg category excluding crawling pegs.

Exogenous monetary policy shocks

Exogenous variation in the short-term interest rate from Òscar Jordà, Moritz Schularick, Alan M. Taylor and Felix Ward, 2019. “Global financial cycles and risk premiums”. IMF Economic Review, Volume 67 Number 1, pp. 109-150, which uses the identification strategy using local projection with instrumental variables laid out in Òscar Jordà, Moritz Schularick and Alan M. Taylor, 2020. “The effects of quasi-random monetary experiments”. Journal of Monetary Economics 112: 22-40.

House prices (nominal index, 1990=100)

1870 – 2012 from Knoll et al. (2014). No price like home: Global house prices, 1870-2012. Year average values.

2013 – 2020 from OECD housing prices database. Nominal series. Chain-linked.

Unemployment rate (percent)

1895 – 1913 from Mitchell, Brian (2013), International Historical Statistics Europe, 1750 – 2010, Table B2 Europe Unemployment, Palgrave Macmillan, London.

1921 – 1939 from Galenson and Zellner (1957) – The Measurement and Behavior of Unemployment, Chapter International Comparison of Unemployment Rates, Table E-8 “Estimated Unemployment Rate among Wage and Salary earners in Manufacturing, Mining, and Construction, France, 1921-1939”.

1950 – 1979 from Maddison, Angus (1982), Phases of Capitalist Development. Table 6 – Unemployment as a percentage of total labour force. Oxford University Press. Chainlinked.

1980 – 2020 from ILOSTAT (2021), Table “Unemployment rate by sex and age” based on the EU Labour force survey (LFS) accessible online at https//ilostat.ilo.org/data/

Wages (index, 1990=100)

1870 - 1897 and 1912 – 1938: Scholliers & Zamagni (1995)."Labour's Reward: Real wages and economic change in 19th- and 20th- century Europe". Nominal Wages France. Chainlinked.

1939 – 1946: International Labour Organization. ILO statistical yearbooks. Hourly earnings for industrial workers in the region of Paris. Chainlinked.

1947: International Historical Statistics. Europe's Labour Force – Money/Wages in Industry. Weighted mean of hourly wages in all sectors in Paris and in the provinces. Chainlinked.

1948 – 1989: International Monetary Fund International Financial Statistics database (IFS). Labor Markets, Wage Rates, Index. Accessible online at http//data.imf.org/. Chainlinked.

1990 – 2020: OECD. OECD statistics. Average annual wages. Current prices. Levels. Accessible online at http//stats.oecd.org/.

Credit Data (converted to billions FRF (new francs))

Total loans to non-financial private sector

1900 – 1910 from M. Saint Marc (1983), Histoire Monétaire de la France, 1880 – 1980, Presses Universitaires de France, Paris. p.64 Series 8 "Crédit accordés par toutes les banques commerciales".

1911 – 1938 from J.P. Patat, and M. Lutfalla (1986), Histoire Monétaire de la France au XXE Siècle, Economica, Paris. p244–281, Series "Séries corrigées des variations saisonnières – Créances sur l'économie".

1946 – 1957 from Eric Monnet (2013). Financing a planned economy. Credit Allocation, institutions and growth during French Golden Age. Berkely economic history working paper. (data sent by Eric Monnet). Chainlinked backwards.

1958 from Conseil National du Crédit (1959), Annual Report, appendix. Page 54. Crédits financés par des ressources monétaires + crédits financés par des fonds publics ou des ressources diverses. Available at www.gallica.bnf.fr. Levels.

1959 from Conseil National du Crédit (1960), Annual Report, appendix. Page 52. Crédits financés par des ressources monétaires + crédits financés par des fonds publics ou des ressources diverses. Available at www.gallica.bnf.fr. Levels.

1960 from Conseil National du Crédit (1961), Annual Report, appendix. Page 54. Crédits financés par des ressources monétaires + crédits financés par des fonds publics ou des ressources diverses. Available at www.gallica.bnf.fr. Levels.

1961 from Conseil National du Crédit (1962), Annual Report, appendix. Page 66. Crédits financés par des ressources monétaires + crédits financés par des fonds publics ou des ressources diverses. Available at www.gallica.bnf.fr. Levels.

1962 from Conseil National du Crédit (1963), Annual Report, appendix. Page 82. Crédits financés par des ressources monétaires + crédits financés par des fonds publics ou des ressources diverses. Available at www.gallica.bnf.fr. Levels.

1963 from Conseil National du Crédit (1964), Annual Report. Page 166. Crédits bancaires en france (banques+banque de France) métroplolitaine. Available at www.gallica.bnf.fr. Levels.

1964 from Conseil National du Crédit (1965), Annual Report. Page 166. Crédits bancaires en france (banques+banque de France) métroplolitaine. Available at www.gallica.bnf.fr. Levels.

1965 from Conseil National du Crédit (1966), Annual Report. Page 175. Crédits bancaires en france (banques+banque de France) métroplolitaine. Available at www.gallica.bnf.fr. Levels.

1966 from Conseil National du Crédit (1967), Annual Report. Page 108. Crédits bancaires en france (banques+banque de France) métroplolitaine. Available at www.gallica.bnf.fr. Levels.

1967 from Conseil National du Crédit (1968), Annual Report. Page 103. Crédits bancaires en france (banques+banque de France) métroplolitaine. Available at www.gallica.bnf.fr. Levels.

1968 from Conseil National du Crédit (1969), Annual Report, appendix. Page 92. Crédits bancaires en france (banques+banque de France) métroplolitaine. Available at www.gallica.bnf.fr. Levels.

1969 from Conseil National du Crédit (1970), Annual Report, appendix. Page 97. Crédits bancaires en france (banques+banque de France) métroplolitaine. Available at www.gallica.bnf.fr. Levels.

1970 from Conseil National du Crédit (1971), Annual Report, appendix. Page 101. Crédits bancaires en france (banques+banque de France) métroplolitaine. Available at www.gallica.bnf.fr. Levels.

1971 from Conseil National du Crédit (1972), Annual Report, appendix. Page 99. Crédits bancaires en france (banques+banque de France) métroplolitaine. Available at www.gallica.bnf.fr. Levels.

1972 from Conseil National du Crédit (1973), Annual Report, appendix. Page 119. Crédits bancaires en france (banques+banque de France) métroplolitaine. Available at www.gallica.bnf.fr. Levels.

1973 from Conseil National du Crédit (1974), Annual Report, appendix. Page 126. Crédits bancaires en france (banques+banque de France) métroplolitaine. Available at www.gallica.bnf.fr. Levels.

1974 from Conseil National du Crédit (1975), Annual Report, appendix. Page 137. Crédits bancaires en france (banques+banque de France) métroplolitaine. Available at www.gallica.bnf.fr. Levels.

1975 - 1976 from Conseil National du Crédit (1977), Annual Report, appendix. Page 174. Crédits bancaires en france (banques+banque de France) métroplolitaine. Available at www.gallica.bnf.fr. Levels.

1977-1979 from Conseil National du Crédit (1980), Annual Report, appendix. Page 185. Crédits bancaires en france (banques+banque de France) métroplolitaine. Available at www.gallica.bnf.fr. Levels.

1980 – 2013 from Banque de France, France Crédits Secteur Privé Residents, Serie: « Crédits des non-IFM hors APU résidentes auprès des IFM, administrations centrales et banques postales, encours. Paris. (available at webstat.banque-france.fr). Year average of monthly values.

2014 – 2020 from Banque de France, Series Title: « Loans (adjusted for loan sales and securitisation) granted to domestic non MFIs except General Government stocks. (available at webstat.banque-france.fr). End of period values.

Mortgage loans to non-financial private sector

1870 – 1898 growth rate calculated from Crédits Foncier, Prêts Hypothécaires, Archive du Monde du Travail, Time Series Code 2003 065 440–441.

1870 – 1898 from Crédits Foncier and Banque Hypothécaire, Prêts Hypothécaires, Archive du Monde du Travail, Time Series Code 2003 065 440–441.

1899 – 1919 growth rate calculated from Banque Hypothécaire, Prêts Hypothécaires, Archive du Monde du Travail. Time Series Code 2003 065 440–441.

1920 – 1928 from Banque Hypothécaire, Prêts Hypothécaires, Archive du Monde du Travail. Time Series Code 2003 065 440–441 and Statistisches Reisamt of Germany (1936), “Statistisches Handbuch der Weltwirtschaft,”, Berlin: Verein für Socialpolitik, Wirtschaft und Statistik, series “Crédit Fonciers de France, Hypotheken”.

1929 – 33 growth rate calculated from Statistisches Reisamt of Germany (1936), “Statistisches Handbuch der Weltwirtschaft,”, Berlin: Verein für Socialpolitik, Wirtschaft und Statistik, series “Crédit Fonciers de France, Hypotheken”.

1946 – 1957 from Conseil National de Crédit, Crédit à l’Habitat, Banque de France Archives Historiques, Paris. And growth rate calculated from Crédits Foncier and Banque Hypothécaire, Prêts Hypothécaires, Archive du Monde du Travail. Time Series Code 2003 065 440–441.

1958 from Conseil National du Crédit (1959), Annual Report. Page 135. Series : Les crédits au logement. Available at www.gallica.bnf.fr. Levels.

1959 from Conseil National du Crédit (1960), Annual Report. Page 134. Series : Les crédits au logement. Available at www.gallica.bnf.fr. Levels.

1960 from Conseil National du Crédit (1961), Annual Report. Page 126. Series : Les crédits au logement. Available at www.gallica.bnf.fr. Levels.

1961 from Conseil National du Crédit (1962), Annual Report. Page 131. Series : Les crédits au logement. Available at www.gallica.bnf.fr. Levels.

1962 from Conseil National du Crédit (1963), Annual Report. Page 148. Series : Les crédits au logement. Available at www.gallica.bnf.fr. Levels.

1963 from Conseil National du Crédit (1964), Annual Report. Page 181. Series : Les crédits au logement. Available at www.gallica.bnf.fr. Levels.

1964 from Conseil National du Crédit (1965), Annual Report. Page 180. Series : Les crédits au logement. Available at www.gallica.bnf.fr. Levels.

1965 from Conseil National du Crédit (1966), Annual Report, Page 190. Series : Les crédits au logement. Available at www.gallica.bnf.fr. Levels.

1966 from Conseil National du Crédit (1967), Annual Report, Page 115. Series : Les crédits au logement. Available at www.gallica.bnf.fr. Levels.

1967 from Conseil National du Crédit (1968), Annual Report, Page 110. Series : Les crédits au logement. Available at www.gallica.bnf.fr. Levels.

1968 from Conseil National du Crédit (1969), Annual Report, Page 100. Series : Les crédits au logement. Available at www.gallica.bnf.fr. Levels.

1969 from Conseil National du Crédit (1970), Annual Report, Page 107. Series : Les crédits au logement. Available at www.gallica.bnf.fr. Levels.

1970 from Conseil National du Crédit (1971), Annual Report, Page 112. Series : Les crédits au logement. Available at www.gallica.bnf.fr. Levels.

1971 from Conseil National du Crédit (1972), Annual Report, Page 114. Series : Les crédits au logement. Available at www.gallica.bnf.fr. Levels.

1972 from Conseil National du Crédit (1973), Annual Report, Page 136. Series : Les crédits au logement. Available at www.gallica.bnf.fr. Levels.

1973 from Conseil National du Crédit (1974), Annual Report, Page 139. Series : Les crédits au logement. Available at www.gallica.bnf.fr. Levels.

1974 from Conseil National du Crédit (1975), Annual Report, Page 156. Series : Les crédits au logement. Available at www.gallica.bnf.fr. Levels.

1975 -1976 from Conseil National du Crédit (1974), Annual Report, Page 192. Series : Les crédits au logement. Available at www.gallica.bnf.fr. Levels.

1977 – 1999 sum of Mortgage Loans to Households and Total loans to business secured by real estate

2000 – 2020 from Banque de France Series title : « Housing loans (adjusted for sales and securitisation) granted to domestic non-financial customers stocks », Series key : « BSI1.M.FR.N.A.A220Z.A.1.U6.2310FR.Z01.E », End of period Values.

Total Loans to Households

1958 – 1976: residual of Total loans to non-financial private sector and Total Loans to Business.

1977 from Conseil National du Crédit (1980), Annual Report. Page 193. Crédit aux ménages. Available at www.gallica.bnf.fr. Levels.

1978 - 1985 from Conseil National du Crédit (1987), Annual Report. Page 127. Crédit aux ménages. Available at www.gallica.bnf.fr. Levels.

1986 - 1987 from Conseil National du Crédit (1988), Annual Report. Page 90. Crédit aux ménages. Available at www.gallica.bnf.fr. Levels.

1988 – 1992 from Banque de France Archives Historiques (1994), Bulletin de la Banque de France Statistiques Monétaires et Financières Annuelles 1994 (Hors Séries), Paris. Time Series Code 1417201201/2.

1993 – 2017 from Institute National de la Statistique et des Etudes Economiques, Series : « d de crédit implantés en France à des résidents français en 2016, Crédits aux ménages» (available at https://www.insee.fr/fr/statistiques/2569408?sommaire=2587886&q=Crédits+des+établissements. Thémes – Economie – Monnaie-Marché financières - Crédits des établissements de crédit implantés en France à des résidents français en 2013, Crédits aux ménages)

2018 – 2020 from Webstat Banque de France, Loans granted to domestic households and NPISHs stocks, end of period values, December values (available http://webstat.banque-france.fr/en/#/home . Loans – Loans to Households – Total loans – Loans granted to domestic households and NPISHs stocks).

Total Loans to Business

1958 from Conseil National du Crédit (1959), Annual Report, Page 129. Crédit aux entreprises industrielles et comercielles. Series : Total. Available at www.gallica.bnf.fr. Chainlinked.

1959 from Conseil National du Crédit (1960), Annual Report,. Page 128. Crédit aux entreprises industrielles et comercielles. Series : Total. Available at www.gallica.bnf.fr. Chainlinked.

1960 from Conseil National du Crédit (1961), Annual Report,. Page 121. Crédit aux entreprises industrielles et comercielles. Series : Total. Available at www.gallica.bnf.fr. Chainlinked.

1961 from Conseil National du Crédit (1962), Annual Report,. Page 126. Crédit aux entreprises industrielles et comercielles. Series : Total. Available at www.gallica.bnf.fr. Chainlinked.

1962 from Conseil National du Crédit (1963), Annual Report,. Page 142. Crédit aux entreprises industrielles et comercielles. Series : Total. Available at www.gallica.bnf.fr. Chainlinked.

1963 from Conseil National du Crédit (1964), Annual Report, Page 172. Crédit aux entreprises industrielles et comercielles. Series : Total. Available at www.gallica.bnf.fr. Chainlinked.

1964 from Conseil National du Crédit (1965), Annual Report, Page 171. Crédit aux entreprises industrielles et comercielles. Series : Total. Available at www.gallica.bnf.fr. Chainlinked.

1965 - 1966 from Conseil National du Crédit (1966), Annual Report, Page 180. Crédit aux entreprises industrielles et comercielles. Series : Total. Available at www.gallica.bnf.fr. Chainlinked.

1967 from Conseil National du Crédit (1968), Annual Report,. Page 104. Crédit aux entreprises industrielles et comercielles. Series : Total. Available at www.gallica.bnf.fr. Chainlinked.

1968 from Conseil National du Crédit (1969), Annual Report, Page 94. Crédit aux entreprises industrielles et comercielles. Series : Total. Available at www.gallica.bnf.fr. Chainlinked.

1969 from Conseil National du Crédit (1970), Annual Report,. Page 99. Crédit aux entreprises industrielles et comercielles. Series : Total. Available at www.gallica.bnf.fr. Chainlinked.

1970 from Conseil National du Crédit (1974), Annual Report, Page 129. Crédit aux entreprises industrielles et comercielles. Series : Total. Available at www.gallica.bnf.fr. Chainlinked.

1971 from Conseil National du Crédit (1975), Annual Report, Page 140. Crédit aux entreprises industrielles et comercielles. Series : Total. Available at www.gallica.bnf.fr. Chainlinked.

1972-1976 from Conseil National du Crédit (1976), Annual Report, Page 178. Crédit aux entreprises industrielles et comercielles. Series : Total. Available at www.gallica.bnf.fr. Chainlinked.

1977 from Conseil National du Crédit (1983), Annual Report, Appendix. Page 129. Crédit aux entreprises industrielles et comercielles. Series : Total. Available at www.gallica.bnf.fr. Levels.

1978-1979 from Conseil National du Crédit (1987), Annual Report, Appendix. Page 129. Crédit aux entreprises industrielles et comercielles. Series : Total. Available at www.gallica.bnf.fr. Levels.

1980 – 2020 residual of Total loans to non-financial private sector and Total Loans to Households.

Corporate Debt

1902–1933 residual of total bank credit from JST database (from Saint Marc, Patat and Lutfalla) less real estate lending from Credit Foncier. ´

1958–1976 from Annual Reports of the Conseil National du Credit, published between ´ 1959 and 1976: Credit aux entreprises industrielles et comercielles, total series. Available at ´ www.gallica.bnf.fr.

1977–1994 bank loans to business and capital market debt from “Credit to the non-financial sector” database of the Bank of International Settlements (accessible online at https: //www.bis.org/statistics/totcredit.htm).

1995–2012 OECD financial accounts data on total non-equity liabilities of the private non-financial business sector.

2013–2018 eurostat financial accounts data on total non-equity liabilities of the private non-financial business sector.

2019-2020 bank loans to business and capital market debt from “Credit to the non-financial sector” database of the Bank of International Settlements (accessible online at https: //www.bis.org/statistics/totcredit.htm).

Bank balance sheet ratios

(Ratios in %, underlying data in billions FRF (new francs))

Capital ratio

Capital ratio = Capital / Total Assets

Total Assets (billions FRF (new francs))

1890-1945 Mazbouri, Malik, Sebastian Guex, and Rodrigo Lopez. 2017. Swiss Data Bank of International Bank Data (1890–1970). University of Lausanne. (http://www.unil.ch/hist/placefinanciere), series “Total bilan”. Chainlinked.

1946-1969 Commission de controle des banques, Rapport annuel, Tableau No. 2, Metropolitaine, series “Total”. Chainlinked.

1970-1979 Commission de controle des banques, Rapport annuel, Tableau No. 1, Metropolitaine, series “Total”. Chainlinked.

1980 -1987 Banque de France, “IFM Hors BDF”, sum of all reported liability items. Chainlinked.

1988 -1996 OECD Banking Statistics. All banks, Total Assets – end of year. Chainlinked.

1997 - 2020 Banque de France, series “Total assets of domestic MFIs except NCB, stocks ”, series key BSI1.M.FR.N.A.T00.A.1.Z5.0000.Z01.E. Levels.

Capital (billions FRF (new francs))

1890-1945 Mazbouri, Malik, Sebastian Guex, and Rodrigo Lopez. 2017. Swiss Data Bank of International Bank Data (1890–1970). University of Lausanne. (http://www.unil.ch/hist/placefinanciere), series “Fonds propres”. Chainlinked capital ratio (difference).

1946-1969 Rapport annuel, Commission de controle des banques, Tableau No. 2, Metropolitaine, series “Capital”+”Reserves”+”Benefices Reports”. Capital ratio in levels multiplied with Total Assets.

1970-1981 Rapport annuel, Commission de controle des banques, Tableau No. 1, Metropolitaine, series “Capital”+”Reserves”+”Benefices Reports”. Capital ratio in levels multiplied with Total Assets.

1982 -1989 Banque de France, series “IFM Hors BDF – Capital”, series key MI.M.FR.N.A.L60.X.1.Z5.0000.Z01.M.E.B.X. Chainlinked.

1990-2008 OECD Banking Statistics. All banks, “Capital and Reserves” divided by “Total Assets”. Resulting capital ratio multiplied with Total Assets (see above).

2009-2020 ECB Consolidated Banking Data, series “Full sample (All banking groups / stand-alone banks irrespective of their accounting / supervisory reporting framework), Tangible equity [% of total assets] (CBD2.Q.FR.W0.11._Z._Z.A.F.I3309._Z._Z._Z._Z._Z._Z.PC), Percent (PC)". Chainlinked.

Loans-to-Deposits ratio

Loans-to-Deposits ratio = Loans / Deposits

Deposits (billions FRF (new francs))

1946-1969 Rapport annuel, Commission de controle des banques, Tableau No. 2, Metropolitaine, sum of series “Comptes de cheques” and “Comptes courants”. Chainlinked.

1970-1983 Rapport annuel, Commission de controle des banques, Tableau No. 1, Metropolitaine, sum of “Comptes d'entreprises et divers” and “Comptes de particuliers” or sum of “Comptes crediteurs de la clientele” and “Comptes d’epargne a regime special”. Chainlinked.

1984 -1987 Banque de France, series “IFM Hors BDF-Passif-Residents-Depots Autres Secteurs”, series key MI.M.FR.N.A.L20.A.1.U6.2300.Z01.M.E.B.X. Chainlinked.

1988-1996 OECD Banking Statistics. All banks, Customer deposits. Chainlinked.

1997 -2020 Banque de France, series “Deposits placed by domestic Non-MFIs excluding central government, stocks”, series key BSI1.M.FR.N.A.L20.A.1.U6.2300.Z01.E. Levels.

Loans (billions FRF (new francs))

1946-1969 Rapport annuel, Commission de controle des banques, Tableau No. 2, Metropolitaine, sum of series “Comptes courants et avances garanties” and “Autres effets”. Chainlinked.

1970-1983 Rapport annuel, Commission de controle des banques, Tableau No. 1, Metropolitaine, sum of “Credits a la Clientele - Portfeulle” and “Credits a la Clientele - Comptes Debiteurs”. Chainlinked.

1984 -1987 Banque de France, series “IFM Hors BDF-Actif-Residents-Credits Secteur Prive”, series key MI.M.FR.N.A.A20.A.1.U6.2200.Z01.M.E.B.X Chainlinked.

1988-1996 OECD Banking Statistics. All banks, Loans. Chainlinked.

1997 -2020 Banque de France, series “Loans granted to domestic non MFIs except General Government by domestic MFIs, stocks”, series key BSI1.M.FR.N.A.A20.A.1.U6.2200.Z01.E Chainlinked.

Noncore ratio

Noncore ratio = (Total Assets – Capital - Deposits) / (Total Assets - Capital)

Germany

(Data in billions DM)

Macro Data

Population

1870 – 1990 from Angus Maddison Database (2008), ibid. Table 1 “Population levels, 1AD–2030AD” (accessible online at http://www.ggdc.net/maddison/Historical_Statistics/horizontal–file_02–2010.xls).

1991 – 2008 Maddison Project Database (2018), ibid. Table “Population, mid-years (thousands)” (accessible online at www.ggdc.net/maddison).

2009 – 2017 growth rates from International Monetary Fund (Aug, 2019), World Economic Outlook. Subject “People – population” (base year: 2008) (accessible at www.imf.org).

2018 – 2020 growth rates from International Monetary Fund (Oct, 2021), World Economic Outlook. Subject “People – population” (base year: 2008) (accessible at www.imf.org).

GDP (converted to billions DM)

1870-1912: growth rates from Burhop, C./Wolff, G., 2005: A Compromise Estimate of German Net National Product, 1851-1913, and its Implications for Growth and Business Cycles, in: The Journal of Economic History, Volume 65, September 2005, No. 3, S. 613-657. - Net National Product

1913-1924: growth rates from Ritschl, Albrecht; Spoerer, Mark, (1997 [2011]) Das Bruttosozialprodukt in Deutschland nach den amtlichen Volkseinkommens- und Sozialproduktstatistiken 1901-1995. GESIS Köln, Deutschland ZA8137 Datenfile Version 1.2.0. - BSP zu Marktpreisen, real (reflated with CPI series from JST dataset)

1925-1949: (1945 missing) growth rates from Ritschl, Albrecht; Spoerer, Mark, (1997 [2011]) Das Bruttosozialprodukt in Deutschland nach den amtlichen Volkseinkommens- und Sozialproduktstatistiken 1901-1995. GESIS Köln, Deutschland ZA8137 Datenfile Version 1.2.0. - Bruttosozialprodukt

1950-1969 growth rates from Sensch, Jürgen, (1997, 2012 [2013]) Ausgewählte Daten zur Wirtschaftentwicklung der Bundesrepublik Deutschland seit 1948. GESIS Köln, Deutschland ZA8528 Datenfile Version 1.0.0 - BIP in jeweiligen Preisen

1970-2020 data from IMF eLibrary. International Financial Statistics. Series “Gross domestic product (in billions) – GDP nominal” (accessible online at https://data.imf.org/).

Real GDP per capita (PPP, 1990 Int$, Maddison)

1870 – 2010 from The Maddison-Project, http://www.ggdc.net/maddison/maddison-project/home.htm, 2013 version. http://www.ggdc.net/maddison/maddison-project/home.htm . Level.

2011 – 2020 from International Monetary Fund. World Economic Outlook. Series: Gross domestic product based on purchasing-power-parity (PPP) per capita GDP. Chain-linked.

Real GDP per capita (index, 2005=100)

1870 – 2004 from R. Barro & and J. Ursúa (2010), Macroeconomic Data Set, Harvard University, Cambridge MA (accessible online at http://scholar.harvard.edu/barro/publications/barro–ursua–macroeconomic–data).

2005 – 2020 growth rate calculated from World Bank (2021), Category "Economic policy and external debt," Series "GDP per capita (constant 2010 US$) (accessible online at http://data.worldbank.org/indicator/NY.GDP.PCAP.KD).

Real consumption per capita (index, 2006=100)

1870 – 2009 from Robert C. Barro and José F. Ursúa (2010), Barro–Ursúa Macroeconomic Data. For respective sources see original data set: http://rbarro.com/data–sets/..

2010 – 2020 from World Bank household final consumption expenditure per capita (constant 2010 US$). Chain linked.

Investment-to-GDP ratio

1870 – 1913 data from Mitchell, Brian (2013), International Historical Statistics: Europe 1750 – 2005, Pallgrave MacMillen, London. Capital formation (CF) / Net national product (NNP). (note that the 1873 values in Mitchell are accidentially shifted one column to the right!)

1920 – 1924 from van Meerten, Michelangelo. Capital formation in Belgium, 1900-1995. Leuven University Press, 2003.

1925 – 1938 from van Meerten, Michelangelo. Capital formation in Belgium, 1900-1995. Leuven University Press, 2003.

1939 from van Meerten, Michelangelo. Capital formation in Belgium, 1900-1995. Leuven University Press, 2003.

1948 – 1949 from van Meerten, Michelangelo. Capital formation in Belgium, 1900-1995. Leuven University Press, 2003.

1950 – 1959 data from Mitchell, Brian (2013), International Historical Statistics: Europe 1750 – 2005, Pallgrave MacMillen, London. Capital formation (CF) / Net national product (NNP).

1960 – 2020 data from International Monetary Fund, International Financial Statistics. Data Report "National Accounts", Series "Gross Fixed Capital Formation, Nominal" (accessible online at https://data.imf.org/).

Consumer prices (index, 1990=100)

1870 – 1996 from A. Taylor (2002), A Century of Purchasing–Power Parity, Review of Economics and Statistics, vol 84(1), pp. 139–150.

1997 – 2020 from International Monetary Fund World Economic Outlook (April 2021). Series "Inflation, average consumer prices" (accessible online at https://www.imf.org/external/pubs/ft/weo/2019/01/weodata/index.aspx). Chainlinked.

Narrow Money (converted to billions DM)

1870-1998 from Mitchell, B. (2013). International Historical Statistics. Sum of series: Banknote circulation + Commercial bank deposits. (gaps 1914-1922 & 1939-1947).

1999-2020 Sum of series Deutsche Bundesbank, Statistiken, Zeitreihen-Datenbanken, Suche in Datenbanken, type: Einlagen / täglich fällig / Deutscher Beitrag / Bestand am Monatsende and in english site type: "Banknotes in Circulation“ https://www.bundesbank.de/dynamic/action/de/statistiken/zeitreihen-datenbanken/zeitreihen-datenbank/723444/723444?openNodeId=1255115&treeAnchor=EURORAUM

Broad Money (converted to billions DM)

1870-1875 from Mitchell, B. (2013). International Historical Statistics. Sum of series: Banknote circulation + Commercial bank deposits + Savings bank deposits. Chainlinked.

1876 - 1922 from Weber, Warren E. 2000. International Data. 1810-1995. Research Department, Federal Reserve Bank of Minneapolis. Series: M2. http://cdm16030.contentdm.oclc.org/cdm/singleitem/collection/p16030coll4/id/8/rec/5

1925 – 1938 from Bordo, Michael, et al. "Is the crisis problem growing more severe?." Economic policy 16.32 (2001): 51-82. M2. Note: Gap from 1914 – 1924

1948-1954 from Sprenger, Bernd, ([2006]) Änderungen der Geldmenge in Deutschland seit 1835. GESIS Köln, Deutschland ZA8231 Datenfile Version 1.0.0. M1. www.gesis.org Chainlinked.

1955-1973 from Deutsche Bundesbank, (1998 [005.]) 50 Jahre Deutsche Mark. Monetäre Statistiken von 1948 bis 1997. GESIS Köln, Deutschland ZA8186 Datenfile Version 1.0.0. M3. www.gesis.org

1974 – 1998 from International Monetary Fund (2012), eLibrary, International Financial Statistics, series M3 alternate definition. (accessible online at http://data.imf.org/).

1999 – 2020 Deutsche Bundesbank, Statistics, search databases, type: Monetary aggregate M3 (from January 2002, excluding currency in circulation; from June 2010, excluding repos with central counterparties) / German contribution / Index / Seasonally adjusted, december value

Short–term interest rate (nominal, percent per year)

1870 – 1874 from Homer, S. and R. Sylla (2005). A History of Interest Rates, Fourth Edition. Wiley Finance. Levels. Annual average rate.

1875 – 1879 from Neal, Larry D., and Marc D. Weidenmier. "Crises in the global economy from tulips to today." Globalization in historical perspective. University Of Chicago Press, 2003. 473-514. Open Market Rate, Monthly, End of Year Value. (accessible online at http://ebutts05.tripod.com/nealweidenmiergsd/)

1880 – 1913 from Bordo, Michael D., Barry Eichengreen, Daniela Klingebiel, and Maria Soledad Martinez–Peria. 2001. “Is the Crisis Problem Growing More Severe?” Economic policy: A European Forum 32: 51–75.

1914 – 1922 from Homer, S. and R. Sylla (2005). A History of Interest Rates, Fourth Edition. Wiley Finance. Levels. Annual average rate.

1924 – 1940 from Morawietz, Markus, (1994 [2009]) Rentabilität und Risiko deutscher Aktien- und Rentenanlagen 1870 – 1992. GESIS Köln, Deutschland ZA8384 Datenfile Version 1.0.0. Series: Tagesgeldsatz (interbank money market rate). December values.

1941 – 1944 from Homer, S. and R. Sylla (2005). A History of Interest Rates, Fourth Edition. Wiley Finance. Levels. Annual average rate.

1950–2012 Post–WWII data from International Monetary Fund (2015), International Financial Statistics database (IFS). Section "Economic indicators", Series "Interest Rates – Money Market Rate" (accessible online at http://elibrary–data.imf.org/).

2012–2020 Bundesbank. Table: "BundesbankTime series BBK01.SU0304: Money market rates / EONIA / Monthly average". 12-month average. (accessible online: http://www.bundesbank.de/Navigation/EN/Statistics/Time_series_databases/Macro_economic_time_series/its_details_value_node.html?tsId=BBK01.SU0304)

Long–term interest rate (nominal, percent per year)

1870 – 1879 from Clemens, Michael A., and Jeffrey G. Williamson. "Wealth bias in the first global capital market boom, 1870–1913*." The Economic Journal 114.495 (2004): 304-337.

1880 – 1913 from Flandreau and Zumer, 2004, The Making of Global Finance, Paris: OECD Development Centre.

1914 – 1921 from Schmelzing, P. (2020). Eight centuries of global real interest rates, R-G, and the 'suprasecular' decline, 1311-2018. Bank of England Staff Working Paper No. 845.

1924 – 1943 from Schmelzing, P. (2020). Eight centuries of global real interest rates, R-G, and the 'suprasecular' decline, 1311-2018. Bank of England Staff Working Paper No. 845.

1948 – 1955 from Wirtschaft und Statistik, Statistische Monatszahlen: 5% DM-Pfandbriefe per hundred parts of nominal value; calculate: (100+5-value)/value to get ltrate.

1956 – 2011 from International Monetary Fund (2019), International Financial Statistics (IFS). Data reports "Economic indicators (IFS)", Section "Interest rates", Series "Government Bonds".

2012 – 2020: OECD (2021). OECD iLibrary. Long-term interest rates doi: 10.1787/662d712c-en, average of monthly values.

Current Account (converted to billions DM)

1872 – 1938 from M. Jones & M. Obstfeld (1997), Saving, Investment, and Gold: A Reassessment of Historical Current Account Data, NBER Working Paper No. 6103, MIT Press, Cambridge MA (accessible online at http://www.nber.org/databases/jones–obstfeld/). Note: Gaps between 1914 – 1924.

1948 – 1974 from B. Mitchell (2013), International Historical Statistics: Europe 1750 – 2005, Pallgrave MacMillen, London. Series: Overall current balance (OCB).

1975 – 2020 International Monetary Fund (2019), International Financial Statistics. Series: Supplementary Items, Current Account, Net (excluding exceptional financing), USD. (accessible online https://data.imf.org). Redenominated into DM with exchange rate from JST dataset

Imports & Exports (converted to billions DM)

1872 – 1913 from Sensch, Jürgen, (1949-2007 [2009]) histat-Datenkompilation online: Der Außenhandel Deutschlands. Basisdaten für den Zeitraum 1830 bis 2000. GESIS Köln, Deutschland ZA8358 Datenfile Version 1.0.0. Series: "Ausfuhr insgesamt" and "Einfuhr insgesamt"

1924 -1943 from B. Mitchell (2013), International Historical Statistics. Pallgrave MacMillen, London. (Note: years 1920-1923 not taken from Mitchell, as the table says they are nominal values, but the numbers are inconsistent with high inflation in Germany.)

1948 – 2020 from International Monetary Fund, International Financial Statistics: archive, M10 2021, External Trade, Goods, Value of Exports, Free on Board (FOB), Domestic Currency; External trade, Imports, Goods, Value, Cost, Insurance freight, Domestic Currency.

Government Revenues (converted to billions DM)

1873 – 1915 from Statistisches Bundesamt (various), Statistische Jahrbücher für das Deutsch Reich (various issues) (accessible online at https://www.destatis.de/DE/Publikationen/StatistischesJahrbuch/StatistischesJahrbuch_AeltereAusgaben.html).

1925 – 1938 from Ritschl, Albrecht (2002), Deutschlands Krise und Konjunktur 1924–1934. Binnenkonjunktur, Auslandsverschuldung und Reparationsproblem zwischen Dawes–Plan und Transfersperre, Akademie Verlang, Berlin.

1950 – 1961 from Statistisches Bundesamt (various), Statistische Jahrbücher für die Bundesrepublik Deutschland (various issues) (accessible online at https://www.destatis.de/DE/Publikationen/StatistischesJahrbuch/StatistischesJahrbuch_AeltereAusgaben.html). Note: 1960 value originally for 9 months, value has been adjusted to reflect 12 months i.e. x1.33.

1962 – 2008 from Statistisches Bundesamt (2012), Finanzen und Steuern Rechnungsergebnisse des Öffentlichen Gesamthaushalts, Fachserie 14, Reihe 3.1. Table I “Entwicklung der Ausgaben und Einnahmen der öffentlichen Haushalte nach Arten”, Serie “ Bereinigte Einnahmen – Bund”. (accessible online at https://www.destatis.de/DE/Publikationen/Thematisch/FinanzenSteuern/OeffentlicheHaushalte/AusgabenEinnahmen/RechnungsergebnisOeffentlicherHaushalt2140310097004.pdf?__blob=publicationFile)

2009 – 2020 from Statistisches Bundesamt (2021), Statistisches Jahrbuch 2018, Kapitel 9 Finanzen und Steuern, Tabelle 9.1.1 “Einnahmen, Ausgaben, Finanzierungssaldo und Schulden”, Serie Einnahmen des Öffentlichen Gesamthaushalts – Bund.

Government Expenditure (converted to billions DM)

1873 – 1913 from P. Flora (1983), State Economy and Society in Western Europe 1815–1975, A Data Handbook, Vol I: The Growth of Mass Democracies and Welfare States, St James Press, Chicago.

1925 – 1938 from A. Ritschl (2002), Deutschlands Krise und Konjunktur 1924-1934. Binnenkonjunktur, Auslandsverschuldung und Reparationsproblem zwischen Dawes-Plan und Transfersperre, Akademie Verlang, Berlin.

1950 – 1961 from Statistisches Bundesamt (various), Statistische Jahrbücher für die Bundesrepublik Deutschland (various issues) (accessible online at https://www.destatis.de/DE/Publikationen/StatistischesJahrbuch/StatistischesJahrbuch_AelthereAusgaben.html). Note: 1960 value originally for 9 months, value has been adjusted to reflect 12 months i.e. x1.33.

1962 – 2008 from Statistisches Bundesamt (2012), Finanzen und Steuern Rechnungsergebnisse des Öffentlichen Gesamthaushalts, Fachserie 14, Reihe 3.1. Table I "Entwicklung der Ausgaben und Einnahmen der öffentlichen Haushalte nach Arten", Serie " Bereinigte Ausgaben – Bund". (accessible online at https://www.destatis.de/DE/Publikationen/Thematisch/FinanzenSteuern/OeffentlicheHaushalte/AusgabenEinnahmen/RechnungsergebnisOeffentlicherHaushalt2140310097004.pdf?__blob=publicationFile)

2009 – 2018 from Statistisches Bundesamt (2019), Statistisches Jahrbuch 2018, Kapitel 9 Finanzen und Steuern, Tabelle 9.1.1 "Einnahmen, Ausgaben, Finanzierungssaldo und Schulden", Serie Ausgaben des Öffentlichen Gesamthaushalts – Bund.

2019 – 2020 from Statistisches Bundesamt, Startseite. Themen. Staat. Öffentliche Finanzen. Ausgaben und Einnahmen. Tabellen. Ausgaben und Einnahmen des Öffentlichen Gesamthaushalts

Public debt-to-GDP ratio

1871-1991 from Rahlf, Thomas, (2015 [2015]) Zeitreihendatensatz für Deutschland, 1834-2012 GESIS Köln, Deutschland ZA8603 Datenfile. Schuldenquote (gesamte öff. Schuld / BIP), A: Zollverein/Deutsches Reich (1834-1945); B: Bundesrepublik Deutschland / alte Bundesländer; D: Deutschland seit der Wiedervereinigung. Gaps: 1914-1926; 1944-1949.

1992 – 2020 from European Commission, Economic and Financial Affairs, AMECO database, Chapter 18 Gross Public Debt.18.2 – Based on ESA 2010 and former definitions. Gross Public Debt (linked series) (UDGGL). Percentage of GDP at market prices (excessive deficit procedure) (data accessible online at http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm).

USD exchange rate (local currency/USD)

1870 – 1886 from Denzel. M.A. (2010). Handbook of World Exchange Rates, 1590-1914. Mark / GBP*GBP / USD (contained in this dataset)

1887 – 1913 from Statistisches Jahrbuch für das dt. Reich. (various issues)

1914 – 1923 from Bordo, M. D. & Jonung, L. (1996) Monetary Regimes, Inflation And Monetary Reform: An Essay in Honor of Axel Leijonhufvud.

1924 – 1940 League of Nations. Yearbooks (various issues).

1941 – 1944 Klovland, J. T., Chapter 7 - Historical exchange rate data 1819-2003. (December values).

1946 – 1949 Reinhart exchange rates (official and parallel) dataset, accessible at http://www.carmenreinhart.com/data/browse-by-topic/topics/10/

1950 – 2020 IMF eLibrary. International Financial Statistics. Exchange Rate
(note Euro/USD exchange rate since 1999 translated into DM/USD rate)

Note: We assume a German mark-euro exchange rate of 1.95583 where necessary.

Peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 1999 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1-2, all 3-6=0); broad peg category including crawling pegs.

2000 – 2020 set to 0 (note: deviation from Ilzetzki, Reinahrt & Rogoff classification, where Germany, as a member of the Eurozone is categorized as a 1).

Strict peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1, all 2-6=0); strict peg category excluding crawling pegs.

2000-2020 set to 0 (note: deviation from Ilzetzki, Reinahrt & Rogoff classification, where Germany, as a member of the Eurozone is categorized as a 1).

Exogenous monetary policy shocks

Exogenous variation in the short-term interest rate from Òscar Jordà, Moritz Schularick, Alan M. Taylor and Felix Ward, 2019. “Global financial cycles and risk premiums”. IMF Economic Review, Volume 67 Number 1, pp. 109-150, which uses the identification strategy using local projection with instrumental variables laid out in Òscar Jordà, Moritz Schularick and Alan M. Taylor, 2020. “The effects of quasi-random monetary experiments”. Journal of Monetary Economics 112: 22-40.

House prices (nominal index, 1990=100)

1870 – 1922 & 1924 – 1938 & 1962 – 2012 from Knoll et al. (2014). No price like home: Global house prices, 1870-2012. Year average values.

2013 – 2020 from OECD housing prices database. Nominal series. Chain-linked.

Unemployment rate (percent)

1887 – 1919 and 1980 – 1982 from Mitchell, Brian (2013), International Historical Statistics Europe, 1750 – 2010, Table B2 Europe Unemployment, Palgrave Macmillan, London. Chainlinked (1980 – 1982).

1920 – 1938 and 1950 – 1979 from Maddison, Angus (1982), Phases of Capitalist Development. Table 6 – Unemployment as a percentage of total labour force. Oxford University Press

1939 and 1946 - 1949 from Galenson and Zellner (1957) – The Measurement and Behavior of Unemployment, Chapter International Comparison of Unemployment Rates, Table 1 "Unemployment Rates, Nine Countries, 1900-1950 (per cent)". Chainlinked.

1983 – 2020 from ILOSTAT (2021), Table "Unemployment rate by sex and age" based on the EU Labour force survey (LFS) accessible online at https//ilostat.ilo.org/data/.

Wages (index, 1990=100)

1870 – 1879 and 1924 – 1938: Scholliers & Zamagni (1995)."Labour's Reward: Real wages and economic change in 19th- and 20th- century Europe". Average annual wages in all sectors (including Industry, handicraft Agriculture, forests, fishing and excluding the military). Chainlinked.

1880 – 1923 and 1939 – 1950: A Sommariva, G Tullio (1987). "German Macroeconomic History, 1880-1979". Appendix 2, Table Wages, employment and population. Average annual wages. There's a gap for the year of 1923 due to the hyperinflation. Chainlinked.

1951 – 2020: from Bundesbank Statistik (2021). Zeitreihen-Datenbank Deutschland / Gesamtwirtschaftliche Übersicht / Arbeitnehmerentgelt (Lohnkosten) je Arbeitnehmer 1) 2) 3); BBNZ1.A.DE.N.G.0018.L. Accessible online at https//www.bundesbank.de/

Credit Data (converted to billions DM)

Total loans to non-financial private sector

1870 – 1882 from German Time Series Database, 1834-2012. Chapter 15.2: Money and Credit - Banks, Series: Loans of all banks to non-banks. Note: loan sum refers to Zollverein/Deutsches Reich (1834-1945) territory. Chainlinked.

1883 – 1940 from Deutsche Bundesbank (1976), Deutsches Geld– und Bankwesen in Zahlen 1876 – 1975, Fritz Knapp GmbH, Frankfurt am Main. Table B1, Series 1.05 "Total loans of Aktienbanken, Sparkassen, Hypothekenbanken und Genossenschaftsbanken" + Table D1, Series 1.08 „Loans of Gewerbliche Kreditgenossenschaften". Includes interbank exposures.

1946-1947: Statistical Annex: Report of the Military Govenor, 1948, Table 2, Total - Loans and Advances - Due from other debtors - Total (including Reichsbank and Länderbanks).

1948 – 2020 from Deutsche Bundesbank (2021), Zeitreihe BBK01.PQA350: Kredite an inländische Unternehmen und Privatpersonen / insgesamt / Alle Bankengruppen. (accessible online at http://www.bundesbank.de/Navigation/DE/Statistiken/Zeitreihen_Datenbanken/Makrooekonomische_Zeitreihen/its_details_value_node.html?tsId=BBK01.PQA350).

Mortgage loans to non-financial private sector

1883 – 1919 calculated from Deutsche Bundesbank (1976), ibid. Table 1.02 “Hypothekenbanken“, Series "Hypotheken“, p60, and Table 1.05 “Sparkassen in Preußen“, Series “Vom Vermögen sind zinsbar angelegt, in Hypotheken, auf städtische Grundstücke“, Series “Vom Vermögen sind zinsbar angelegt, in Hypotheken, auf ländliche Grundstücke“ p64.

1924 – 1940 from Deutsche Bundesbank (1976), ibid. Table 1.01 “Aktiva & passive alle Banken”, Series “Langfirstige Ausleihungen, Hypothekenforderungen”, p75. Note: value for 1927 is a linear interpolation.

1949 – 1967 from Deutsche Bundesbank, Monatsbericht der Deutschen Bundesbank. Table “Summe Hypothekar Kredite”. December 1967, p55. https://www.bundesbank.de/Redaktion/DE/Downloads/Veroeffentlichungen/Monatsberichte/1967/1967_12_monatsbericht.pdf?__blob=publicationFile

1968 – 2020 from Deutsche Bundesbank (2021), Zeitreihe BBK01.PQ3013: Hypothekarkredite an inländische Unternehmen und Privatpersonen / insgesamt / Alle Bankengruppen. Path: Banken und andere finanzielle Institute – Banken – Aktiva und Passiva der Banken in Deutschland (ohne Deutsche Bundesbank und Geldmarktfonds) – Kredite der Banken (MFIs) an inländische Unternehmen und Privatpersonen – Kredite an inländische Unternehmen und Privatpersonen – Wohnungsbaukredite (nach Bankengruppen) – Hypothekarkredite insgesamt (accessible online at http://www.bundesbank.de/Navigation/DE/Statistiken/Zeitreihen_Datenbanken/Makrooekonomische_Zeitreihen/its_details_value_node.html?tsId=BBK01.PQA350)

Total Loans to Households

1950 – 2020 Residual of Total loans to non-financial private sector and Total Loans to Business.

Total Loans to Business

1950 – 2020 from Deutsche Bundesbank (2021), Zeitreihe BBK01.PQ3001: Kredite an inländische Unternehmen und wirtschaftlich selbstständige Privatpersonen / insgesamt / Alle Bankengruppen. (Available online at http://www.bundesbank.de/Navigation/DE/Statistiken/Zeitreihen_Datenbanken/Makrooekonomische_Zeitreihen/its_details_value_node.html?tsId=BBK01.PQ3001)

Total Other Loans to Business

Residual of Mortgage loans to non-financial private sector and Mortgage Loans to Households.

Corporate Debt

1885–1920 from Bundesbank (1976): loans and discounts of joint-stock banks (Aktienkreditbanken) and commercial credit unions (Genossenschaftsbanken) to non-banks proxying lending to business.

1924–1944 from Bundesbank (1976): loans and discounts of Großbanken and Kreditgenossenschaften.

1949–1990 from Deutsche Bundesbank (1983) “Revidierte Ergebnisse der gesamtwirtschaftlichen Finanzierungs- und Geldvermögensrechnung für die Jahre 1950-1959”,

and Deutsche Bundesbank (1994) “Ergebnisse der gesamtwirtschaftlichen Finanzierungsrechnung für Westdeutschland 1960-1992. Total private non-financial business sector liabilities less equity.

1991–2012 OECD financial accounts data on total non-equity liabilities of the private non-financial business sector.

2013–2018 eurostat financial accounts data on total non-equity liabilities of the private non-financial business sector.

2019-2020 bank loans to business and capital market debt from “Credit to the non-financial sector” database of the Bank of International Settlements (accessible online at https: //www.bis.org/statistics/totcredit.htm).

Bank balance sheet ratios

(Ratios in %, Underlying data in billions DM)

Capital ratio

Capital ratio = Capital / Total Assets

Total Assets (converted to billions DM)

1870 – 1878 Deutsche Bundesbank (1975), Deutsches Geld– und Bankwesen in Zahlen 1876–1975, Fritz Knapp GmbH, Frankfurt am Main. Chapter D I. Table 1.02 Hypothekenbanken, series „Langfristige Ausleihungen“ + Table 1.04 Sparkassen in Preußen, series „Aktivvermögen“ chainlinked with Sparkassen + Aktienbanken assets chainlinked with Carsten Burhop (2004), Die Kreditbanken in der Gründerzeit, Tabelle 3, „Die Bilanzsumme der Kreditbanken“.

1879 – 1880 Deutsche Bundesbank (1975), Deutsches Geld– und Bankwesen in Zahlen 1876–1975, Fritz Knapp GmbH, Frankfurt am Main. Chapter D I., Aktienbanken and Hypothekenbanken chainlinked with Table 1.02 Hypothekenbanken, series „Langfristige Ausleihungen“+ Table 1.04 Sparkassen in Preußen, series „Aktivvermögen“ chainlinked with Savings bank data.

1881 – 1882 Deutsche Bundesbank (1975), Deutsches Geld– und Bankwesen in Zahlen 1876–1975, Fritz Knapp GmbH, Frankfurt am Main. Aktienbanken „Bilanzsumme“ chainlinked with series Chapter D I., Table 1.02 Hypothekenbanken „Bilanzsumme“+ Chapter D I., Table 1.02 Hypothekenbanken, series „Bilanzsumme“ + Table 1.04 Sparkassen in Preußen, series „Aktivvermögen“ chainlinked with Savings bank data.

1883 – 1899 Deutsche Bundesbank (1975), Deutsches Geld– und Bankwesen in Zahlen 1876–1975, Fritz Knapp GmbH, Frankfurt am Main. Chapter D I., Table 1.01 Aktien-Kreditbanken, series „Bilanzsumme“+ Table 1.02 Hypothekenbanken, series „Bilanzsumme “+ Table 1.04 Sparkassen in Preußen, series „Aktivvermögen“ chainlinked with Sparkassen im Deutschen Reich, series „Aktivvermögen“.

1900 – 1920 Deutsche Bundesbank (1975), Deutsches Geld– und Bankwesen in Zahlen 1876–1975, Fritz Knapp GmbH, Frankfurt am Main. Chapter D I., Table 1.01 Aktien-Kreditbanken, series „Bilanzsumme“+ Table 1.02 Hypothekenbanken, series „Bilanzsumme“ + Table 1.04 Sparkassen im Deutschen Reich, series „Aktivvermögen“. Levels.

1924 – 1940 Deutsche Bundesbank (1975), Deutsches Geld– und Bankwesen in Zahlen 1876–1975, Fritz Knapp GmbH, Frankfurt am Main. Chapter D II., Table 1.01 Aktiva und Passiva, Alle Banken, series „Bilanzsumme“. Levels.

1950 – 2020 Deutsche Bundesbank, Zeitreihe BBK01.OU0308: accessible online at http://www.bundesbank.de/Navigation/DE/Statistiken/Zeitreihen_Datenbanken/Makrooekonomische_Zeitreihen/its_details_value_node.html?tsId=BBK01.OU0308). Levels.

Capital (converted to billions DM)

1870 – 1878 Deutsche Bundesbank (1975), Deutsches Geld– und Bankwesen in Zahlen 1876–1975, Fritz Knapp GmbH, Frankfurt am Main. Chapter D I. Table 1.02 Hypothekenbanken, series „Kapital+ Table 1.04 Sparkassen in Preußen, series „Reservefonds“ + Aktienbankenbanken Capital from Carsten Burhop (2004), „Die Kreditbanken in der Gründerzeit“, Tabelle 4, „Eigenkapital der Kreditbanken“. Chainlinked.

1879 – 1880 Deutsche Bundesbank (1975), Deutsches Geld– und Bankwesen in Zahlen 1876–1975, Fritz Knapp GmbH, Frankfurt am Main. Aktienbanken capital ratio from 1883. Chapter D I., Table 1.02 Hypothekenbanken, series „Kapital“. “ + Table 1.04 Sparkassen in Preußen, series „Reservefonds“. Chainlinked.

1881 – 1882 Deutsche Bundesbank (1975), Deutsches Geld– und Bankwesen in Zahlen 1876–1975, Fritz Knapp GmbH, Frankfurt am Main. Aktienbanken capital ratio from 1883 + Chapter D I., Table 1.02 Hypothekenbanken, series „Kapital“+“Reserven“ + Table 1.04 Sparkassen in Preußen, series „Reservefonds“. Chainlinked.

1883 – 1899 Deutsche Bundesbank (1975), Deutsches Geld– und Bankwesen in Zahlen 1876–1975, Fritz Knapp GmbH, Frankfurt am Main. Chapter D I., Table 1.01 Aktien-Kreditbanken, series „Kapital“ and „Reserven“+ Table 1.02 Hypothekenbanken, series „Kapital“ and „Reserven“ “+ Table 1.04 Sparkassen in Preußen, series „Reservefonds“. Chainlinked.

1900 – 1920 Deutsche Bundesbank (1975), Deutsches Geld– und Bankwesen in Zahlen 1876–1975, Fritz Knapp GmbH, Frankfurt am Main. Chapter D I., Table 1.01 Aktien-Kreditbanken, series „Kapital“ and „Reserven“+ Table 1.02 Hypothekenbanken, series „Kapital“ and „Reserven“ “+ Table 1.04 Sparkassen im deutschen Reich, series „Rücklagen“. Levels.

1924 – 1940 Deutsche Bundesbank (1975), Deutsches Geld– und Bankwesen in Zahlen 1876–1975, Fritz Knapp GmbH, Frankfurt am Main. Chapter D II., Table 1.01 Aktiva und Passiva, Alle Banken, series „Grund- bzw. Geschäftskapital“+“Reserven“

1950 – 2020 Deutsche Bundesbank, Zeitreihe BBK01.OU0322
: accessible online at
http://www.bundesbank.de/Navigation/DE/Statistiken/Zeitreihen_Datenbanken/Makrooekonomische_Zeitreihen/its_details_value_node.html?tsId=BBK01.OU0322).

Loans-to-Deposits ratio

Loans-to-Deposits ratio = Loans / Deposits

Deposits (converted to billions DM)

1870 – 1878 Deutsche Bundesbank (1975), Deutsches Geld– und Bankwesen in Zahlen 1876–1975, Fritz Knapp GmbH, Frankfurt am Main. Chapter D I. Table 1.02 Hypothekenbanken, series „Depositen und Kreditoren“ chainlinked with growth rate of Bilanzsumme + Sparkassen in Preußen „Spareinlagen“, chainlinked + Aktienbanken from Carsten Burhop (2004), „Die Kreditbanken in der Gründerzeit“, Tabelle 5, „Depositen und Kontokorrenteinlagen der Kreditbanken“. Chainlinked.

1879 – 1882 Deutsche Bundesbank (1975), Deutsches Geld– und Bankwesen in Zahlen 1876–1975, Fritz Knapp GmbH, Frankfurt am Main. Chapter D I., Table 1.01 Aktien-Kreditbanken, series „Depositen und Kreditoren“ (Berliner Großbanken + Provinzbanken) chainlinked with growth rate of „Bilanzsumme“+ Table 1.02 Hypothekenbanken, series „Depositen und Kreditoren“ chainlinked with growth rate of Bilanzsumme + Sparkassen in Preußen „Spareinlagen“, chainlinked.

1883 – 1920 Deutsche Bundesbank (1975), Deutsches Geld– und Bankwesen in Zahlen 1876–1975, Fritz Knapp GmbH, Frankfurt am Main. Chapter D I., Table 1.01 Aktien-Kreditbanken, series „Depositen und Kreditoren“ (Berliner Großbanken + Provinzbanken) + Table 1.02 Hypothekenbanken, series „Depositen und Kreditoren“+ Sparkassen im deutschen Reich „Spareinlagen“ (before 1900 chainlinked with Sparkassen in Preußen). Levels.

1924 – 1940 Deutsche Bundesbank (1975), Deutsches Geld– und Bankwesen in Zahlen 1876–1975, Fritz Knapp GmbH, Frankfurt am Main. Chapter D II., Table 1.01 Aktiva und Passiva, Alle Banken, series „Einlagen – Nichtbanken und Auslandsbanken“. Levels.

1950 – 2020 Deutsche Bundesbank, sum of series BBK01.OU5664 and BBK01.OUA175: accessible online at
http://www.bundesbank.de/Navigation/DE/Statistiken/Zeitreihen_Datenbanken/Makrooekonomische_Zeitreihen/its_details_value_node.html?tsId= BBK01.OU5664).

Loans (converted to billions DM)

1870 – 1878 Deutsche Bundesbank (1975), Deutsches Geld– und Bankwesen in Zahlen 1876–1975, Fritz Knapp GmbH, Frankfurt am Main. Chapter D I. Table 1.02 Hypothekenbanken,

chainlinked with „Bilanzsumme“ + Aktienbanken chainlinked with Carsten Burhop (2004), „Die Kreditbanken in der Gründerzeit“, Tabelle 6, „Kontokorrentkredite der Kreditbanken“ + Sparkassen in Preußen „Aktivvermögen“, chainlinked.

1879 – 1882 Deutsche Bundesbank (1975), Deutsches Geld– und Bankwesen in Zahlen 1876–1975, Fritz Knapp GmbH, Frankfurt am Main. Chapter D I., Table 1.01 Aktien-Kreditbanken, chainlinked with total assets + Table 1.02 Hypothekenbanken, series „Debitoren insgesamt“ + Sparkassen in Preußen „Aktivvermögen“, chainlinked.

1883 – 1899 Deutsche Bundesbank (1975), Deutsches Geld– und Bankwesen in Zahlen 1876–1975, Fritz Knapp GmbH, Frankfurt am Main. Chapter D I., Table 1.01 Aktien-Kreditbanken, series „Debitoren insgesamt“+ „Wechsel“+ Table 1.02 Hypothekenbanken, series „Debitoren insgesamt“ + Sparkassen in Preußen „Aktivvermögen“, chainlinked.

1900 – 1920 Deutsche Bundesbank (1975), Chapter D I., Table 1.01 Aktien-Kreditbanken, series „Debitoren insgesamt“+ „Wechsel“+ Table 1.02 Hypothekenbanken, series „Debitoren insgesamt“ + Sparkassen im deutschen Reich „Aktivvermögen“. Levels.

1924 – 1940 Deutsche Bundesbank (1975), Chapter D II., Table 1.01 Aktiva und Passiva, Alle Banken, series „Langfristige Ausleihungen insgesamt“+“Debitoren und sonstige kürzerfristige Forderungen – Nichtbanken zusammen“

1950 – 2020 Deutsche Bundesbank. Zeitreihe BBK01.PQA350: Kredite an inländische Unternehmen und Privatpersonen / insgesamt / Alle Bankengruppen. (accessible online at http://www.bundesbank.de/Navigation/DE/Statistiken/Zeitreihen_Datenbanken/Makrooekonomische_Zeitreihen/its_details_value_node.html?tsId=BBK01.PQA350).

Noncore ratio

Noncore ratio = (Total Assets-Capital - Deposits) / (Total Assets - Capital)

IRELAND

(Data in millions IEP)

Macro Data

Population

1921 - 1949: Bolt, J., Inklaar, R., de Jong, H., & Van Zanden, J. L. (2018), *Rebasing ‘Maddison’: new income comparisons and the shape of long-run economic development*, Maddison Project Working Paper 10.

1950 – 2020: Central Statistics Office (2021), Table PEA01, “Population Estimates”

GDP (converted to millions IEP)

1922 - 1969: Gerlach & Stuart (2015), 'Money, Interest Rates and Prices in Ireland, 1933-2012', *Irish Economic and Social History*, 42(1).

1970 - 1994: Central Statistics Office (2019), Historical National Income & Expenditure accounts. Table NAH05 T05, Expenditure on Gross National Income (excluding FSIM) at Current Market Prices. Chainlinked

1995 - 2020:, Central Statistics Office (2021), National Income and Expenditure Annual Results 2021, Table N1805 T05

Real GDP per capita (PPP, 1990 Int$, Maddison)

1980 – 2020: International Monetary Fund (2021). World Economic Outlook. Series: Gross domestic product based on purchasing-power-parity (PPP) per capita GDP. Note: The series is projected backwards to 1922 using the growth-rates of the real GDP per capita series described in the following subsection. Converted to 1990 Int$ using the US Consumer Price Index described in the relevant chapter.

Real GDP per capita (index, 2005=100)

1922 - 1969: Gerlach & Stuart (2015), 'Money, Interest Rates and Prices in Ireland, 1933-2012', *Irish Economic and Social History*, 42(1).

1970 - 1994: Central Statistics Office (2019), Historical National Income & Expenditure accounts (NAH05 T05). Chainlinked

1995 - 2020:, Central Statistics Office (2021), National Income and Expenditure Annual Results 2018, Table N1805 T05

Real consumption per capita (index, 2006=100)

1938 - 1946: Fitzgerald & Kenny (2019), 'Managing a Century of Debt', *Journal of Statistical & Social Inquiry Society of Ireland*, Vol.48, pp. 1-40. Chainlinked

1947 - 1957: Central Statistics Office (1973), "National Income and Expenditure, 1969". Chainlinked

1958 - 1969: Central Statistics Office (1979), "National Income and Expenditure, 1977". Table B.12. Chainlinked

1970 - 1994: Central Statistics Office (2019), Historical National Accounts, Table NAH06 T06, "Expenditure on Gross National Income (excluding FISIM) at Constant Market Prices". Chainlinked

1995 - 2020: Central Statistics Office (2021), National Income and Expenditure Annual Results 2018, Table N1806 T06, “Expenditure on Gross National Income at Constant Market Prices”. Chainlinked

Investment-to-GDP ratio

1944 - 1946: McCarthy et al (1952), 'Symposium on national income and social accounts', *Journal of the Statistical and Social Inquiry Society of Ireland*, 28(5), pp. 473-514. Chainlinked

1947 - 1959: Central Statistics Office (1964), “National Income and Expenditure”, Tables A.3, A.6, B.3 and B.6.

1960 – 1969: Central Statistics Office (1975), “National Income and Expenditure”, Tables B.5 and B.9.

1995 – 2020 Central Statistics Office, T11. Savings and Capital Formation, Gross total available for investment in domestic capital formation - ESA code (P.5), yearly

Consumer prices (index, 1990=100)

1922 – 2020: Central Statistics Office (2021), Table CPM02, “Consumer Price Index”. Rebased to 1990 = 100.

Narrow Money (converted to millions IEP)

1922 - 2002: Gerlach & Stuart (2015), ‘Money, Interest Rates and Prices in Ireland, 1933-2012’, *Irish Economic and Social History*, 42(1). Chainlinked

2003 – 2020: Central Bank of Ireland, Table A.3 Money Supply - Irish Contribution to Euro Area, outstanding amount, M1 end of year value

Broad Money (converted to millions IEP)

1922 - 2002: Gerlach & Stuart (2015), ‘Money, Interest Rates and Prices in Ireland, 1933-2012’, *Irish Economic and Social History*, 42(1). Chainlinked

2003 – 2020: Central Bank of Ireland, Table A.3 Money Supply - Irish Contribution to Euro Area, outstanding amount, M2 end of year value.

Short-term interest rates (nominal, percent per year)

1920 - 1984: Gerlach & Stuart (2015), ‘Money, Interest Rates and Prices in Ireland, 1933-2012’, *Irish Economic and Social History*, 42(1). Series uses the updated dataset of this publication extending short-term interest rates to 1920 – 1922.

1985 – 2020: OECD (2021). OECD iLibrary. Short-term interest rates doi: 10.1787/2cc37d77-en

Long-term interest rates (nominal, percent per year)

1922 - 1923: Gerlach & Stuart (2015), 'Money, Interest Rates and Prices in Ireland, 1933-2012', *Irish Economic and Social History*, 42(1).

1924 - 1970: Fitzgerald & Kenny (2019), 'Managing a Century of Debt', *Journal of Statistical & Social Inquiry Society of Ireland*, Vol.48, pp. 1-40.

1971 – 2020: OECD (2021). OECD iLibrary. Long-term interest rates doi: 10.1787/662d712c-en

Current Account (converted to millions IEP)

1938 - 2017: Fitzgerald & Kenny (2019), 'Managing a Century of Debt', *Journal of Statistical & Social Inquiry Society of Ireland*, Vol.48, pp. 1-40.

2018 – 2020: Central Statistics Office (2021). Irish Statistical Survey. Table 9, Net balance on current account

Imports & Exports (converted to millions IEP)

1937 – 1946: Central Statistics Office (1955). Irish Statistical Survey. Table 9

1947 - 1958: Central Statistics Office (1973), "National Income and Expenditure, 1969". Chainlinked

1958 - 1969: Central Statistics Office (1979), "National Income and Expenditure, 1977". Table B.12. Chainlinked

1970 - 1994: Central Statistics Office (2020), Historical National Accounts, Table NAH05 T05. Expenditure on Gross National Income. Chainlinked

1995 - 2020: Central Statistics Office (2021), N2005, T05 Expenditure on Gross and Net National Income at Current Market Prices, Exports of goods and services (excluding factor income flows).

Government Revenues (converted to millions IEP)

1938 and 1944 - 1946: McCarthy et al (1952), 'Symposium on national income and social accounts', *Journal of the Statistical and Social Inquiry Society of Ireland*, 28(5), pp. 473-514.

1947 – 1959: Central Statistics Office (1964), "National Income and Expenditure", Tables A.3, A.6, B.3 and B.6.

1960 – 1969: Central Statistics Office (1975), "National Income and Expenditure", Tables B.5 and B.9.

1970 – 1975: Central Statistics Office (1975), “National Income and Expenditure”, Tables A.5 and A.9.

1976 – 1980: Central Statistics Office (1982), “National Income and Expenditure”, Tables A.5 and A.9.

1981 – 1995: Central Statistics Office (2020), “Historical National Income and Expenditure Tables”, Tables 5, 9 and 10.

1996 – 2020: Central Statistics Office (2021), “National Income and Expenditure 2018”, Tables 5 and 10.

Government Expenditure

1938 and 1944 - 1946: McCarthy et al. (1952), 'Symposium on national income and social accounts', *Journal of the Statistical and Social Inquiry Society of Ireland*, 28(5), pp. 473-514.

1947 – 1959: Central Statistics Office (1964), “National Income and Expenditure”, Tables A.3, A.6, B.3 and B.6.

1960 – 1969: Central Statistics Office (1975), “National Income and Expenditure”, Tables B.5 and B.9.

1970 – 1975: Central Statistics Office (1975), “National Income and Expenditure”, Tables A.5 and A.9.

1976 – 1980: Central Statistics Office (1982), “National Income and Expenditure”, Tables A.5 and A.9.

1981 – 1995: Central Statistics Office (2020), “Historical National Income and Expenditure Tables”, Tables 5, 9 and 10.

1996 – 2020: Central Statistics Office (2021), “National Income and Expenditure 2021”, Tables 5 and 10.

Public debt-to-GDP ratio

1922 – 1999: Fitzgerald & Kenny (2019), ‘Managing a Century of Debt’, *Journal of Statistical & Social Inquiry Society of Ireland*, Vol.48, pp. 1-40.

2000 – 2020: Central Statistics Office, National Accounts. Table GFA02 “General Government Gross and Net Debt (ESA2010)”. Gross General Government Debt (EDP face value) - Gross General Government Debt - ESA2010 Code (GGDebt). Devide by: Gross domestic product at current market prices from National Accounts table.

USD exchange rate (local currency/USD)

1920 - 1978: Prior to 1979 Irish punt was pegged at a fixed rate to the UK pound sterling. Therefore, the exchange rate series during this period is derived from the UK exchange rate series. whose sources are described in the relevant chapter.

1979 - 2020: OECD (2021), Exchange rates (indicator). doi: 10.1787/037ed317-en

Note: We assume a punt-euro exchange rate of 0.787564 where necessary.

Peg variables

Throughout the entire period 1920-2019, the variable “Peg” is set to a value of 1, while “Peg type” is set to “Peg”. “Strict Peg” is set to 1 for all years apart from 1979-1998, while the “Peg Base” is GBR until 1951, USA for 1952-1978 and DEU thereafter. The changes in “Peg Base” (and in “Strict Peg”) reflect:

1. The coding of the Bretton Woods system, where the pound sterling is classified as a “Strict Peg” with the USA as a base from 1951;
2. The coding of the ERM from 1979, where there is a peg (but no strict peg) with DEU as the base, for the period 1979-1998; and
3. The coding of the eurozone, from 1999, with a strict peg and DEU as the base.

House prices (nominal index, 1990=100)

1945 - 1995: Keely & Lyons (2020), “Housing Prices, Yields and Credit Conditions in Dublin since 1945”. *The Journal of Real Estate Finance and Economics*, pp. 1-36. Chainlinked

1996 – 2004: the series is extended back using the calculated year-on-year growth in Q4 figures from the ESRI/Permanent TSB index

2005 – 2020: Central Statistics Office (2021), Table HPMO6 ”Residential Property Price Index”. National – All Residential Properties. End-of-year-figures.

Credit data (converted to millions IEP)

Total loans to non-financial private sector

1932 – 2002: Stuart, R. (2017), ’70 years of personal disposable income and consumption in Ireland’, *Journal of the Statistical and Social Inquiry Society of Ireland*, Vol.46, pp.47-70. Chainlinked using private sector credit growth

2003 – 2020: Central Bank of Ireland (2021), Bank Balance Sheets Data. Table A.5 “Loans to Irish Private Sector – Sector & Maturity”, and Table A.5.1 “Loans to Irish Households – Purpose & Maturity”. End-of-year- figures. Only lending for households and non-financial corporations is used. Lending to insurance corporations and pension funds, and to other financial intermediaries, is excluded.

Mortgage loans to non-financial private sector

1959 – 2002: Stuart, R. (2017), '70 years of personal disposable income and consumption in Ireland', *Journal of the Statistical and Social Inquiry Society of Ireland*, Vol.46, pp.47-70. Using annual growth in sectoral lending excluding securitized lending sectoral lending for 1971 – 2003; and lending by building societies for 1959 – 1971

2003 – 2020: Central Statistics Office (2021), Bank Balance Sheets Data. Table A.5.1 "Loans to Irish Households – Purpose & Maturity". Lending for housing purchases, all durations. These figures exclude securitized loans and so are best considered a measure of banking sector exposure rather than household exposure

Total loans to households

1948 – 2002: Stuart, R. (2017), '70 years of personal disposable income and consumption in Ireland', *Journal of the Statistical and Social Inquiry Society of Ireland*, Vol.46, pp.47-70. Note: The CSO (2020) series in 2003 is projected backwards using growth-rates of loans to households excluding securitized loans as reported in Stuart (2017). As no overlapping data exist for 1968, the average of the growth rates in 1967 and 1969 is used as the growth rate in 1968. A gap in the series in 1970 is filled by interpolating linearly between 1969 and 1971.

2003 – 2020: Central Statistics Office (2021), Bank Balance Sheets Data. Table A.5 "Loans to Irish Private Sector – Sector & Maturity". Households. End-of-year figures

Total loans to business

1959 – 2002: Stuart, R. (2017), '70 years of personal disposable income and consumption in Ireland', *Journal of the Statistical and Social Inquiry Society of Ireland*, Vol.46, pp.47-70. Note: The CSO (2020) series in 2003 is projected backwards using growth-rates of total private sector lending excluding personal sector lending, lending to government authorities, non-bank financial corporations and lending to schools, hospitals etc, reported in Stuart (2017). The classification of lending to "property companies" changes between 1968 and 1969.

2003 – 2020: Central Bank of Ireland (2021), Bank Balance Sheets Data. Table A.5 "Loans to Irish Private Sector – Sector & Maturity". Non-financial corporations. End-of-year figures

Corporate Debt

1932–2002 from Rebecca Stuart (2017) "70 years of personal disposable income and consumption in Ireland", Journal of the Statistical and Social Inquiry Society of Ireland, Vol.46, pp.47-70 and sourced cited therein: Bank lending to business.

2003–2018 from Central Bank of Ireland's online Bank Balance Sheets Data, Table A.5 "Loans to the Irish Private Sector", credit to the private non-financial business sector.

ITALY

(Data in billions ITL)

Macro Data

Population

1870 – 2008 from Angus Maddison Database (2008), ibid. Table 1 “Population levels, 1AD–2030AD” (accessible online at http://www.ggdc.net/maddison/Historical_Statistics/horizontal–file_02–2010.xls).

2009 – 2020 growth rates from International Monetary Fund, World Economic Outlook. Subject “People – population” (base year: 2008) (accessible at www.imf.org).

GDP (Converted to billions ITL)

1870 – 1998 from Baffigi, Alberto (2011), Italian National Accounts, 1861–2011, Quaderni di Storia Economica, Number 18 – October 2011. Level.

1999 – 2020 from International Monetary Fund (2021), International Financial Statistics. Data Report “Economic indicators”, Series “Gross domestic product (in millions) – GDP nominal” (accessible online at https://data.imf.org/). Level.

Real GDP per capita (PPP, 1990 Int$, Maddison)

1870 – 2010 from The Maddison-Project, http://www.ggdc.net/maddison/maddison-project/home.htm, 2013 version. http://www.ggdc.net/maddison/maddison-project/home.htm . Level.

2011 – 2020 from International Monetary Fund (2021). World Economic Outlook. Series: Gross domestic product based on purchasing-power-parity (PPP) per capita GDP. Chain-linked.

Real GDP per capita (index, 2005=100)

1870 – 2004 from R. Barro & and J. Ursúa (2010), Macroeconomic Data Set, Harvard University, Cambridge MA (accessible online at http://scholar.harvard.edu/barro/publications/barro–ursua–macroeconomic–data).

2005 – 2020 growth rate calculated from World Bank (2021), Category “Economic policy and external debt,” Series “GDP per capita (constant 2010 US$) (accessible online at http://data.worldbank.org/indicator/NY.GDP.PCAP.KD).

Real consumption per capita (index, 2006=100)

1870 – 2009 from Robert C. Barro and José F. Ursúa (2010), Barro–Ursúa Macroeconomic Data. For respective sources see original data set: http://rbarro.com/data–sets/..

2010 – 2020 from World Bank household final consumption expenditure per capita (constant 2010 US$). Chain linked.

Investment-to-GDP ratio

1870 – 2007 from Baffigi, Alberto (2011), Italian National Accounts, 1861–2011, Quaderni di Storia Economica, Number 18 – October 2011. Column: fixed investment, divided by GDP series from same source.

2008–2020 data from International Monetary Fund (2021), International Financial Statistics. Data Report "National Accounts", Series "Gross Fixed Capital Formation, Nominal" (accessible online at https://data.imf.org/), divided by GDP from same source.

Consumer prices (index, 1990=100)

1870 – 1996 from A. Taylor (2002), A Century of Purchasing–Power Parity, Review of Economics and Statistics, vol 84(1), pp. 139–150.

1997 – 2020 from International Monetary Fund World Economic Outlook (April 2021). Series "Inflation, average consumer prices" (accessible online at https://www.imf.org/external/pubs/ft/weo/2019/01/weodata/index.aspx). Chainlinked.

Narrow Money (Converted to billions ITL)

1870 – 1949 from Fratianni, M. and F. Spinelli, A Monetary History of Italy, Cambridge 1997. p. 50 Sum of columns bp and be.

1950 – 1997 from Bank of Italy, Statistical Database, Historcial Tables – Monetary and Financial Indicators, Italy Monetary Aggregates series M1 historical series: pre-EMU definitions (billions of liras) [SST_STSMB.M.M1ST.101] (online available at: https://infostat.bancaditalia.it/inquiry/#eNorSazIt3IOdXINdg2xDQh1cvKJNzCogTHiDUyQ2fEGhkBUE%2BLoG2xgaGCg4xni6hvs6uMaZRsc%0AHBIfHBLs66Tnq%2BdrGByiZ2hgqOMf4Opnm5aYU5yqDwAgJB2r).

1998 – 2020 from Bank of Italy, Money and Banking, Italian components of the monetary aggregates of the euro area, Italian contribution to euro-area M1, excluding currency held by the public, end of year (online available at www.bancaditalia.it)

Broad Money (Converted to billions ITL)

1870 - 1947 from Weber, Warren E. 2000. International Data. 1810-1995. Research Department, Federal Reserve Bank of Minneapolis. M2. http://cdm16030.contentdm.oclc.org/cdm/singleitem/collection/p16030coll4/id/8/rec/5

1948 – 1998 from Bank of Italy, Statistical Database, Historcial Tables – Monetary and Financial Indicators, Italy Monetary Aggregates series M2 plus historical series. December values. (available at: https://infostat.bancaditalia.it/inquiry/#eNorSazIt3IOdXINdg2xDQh1cvKJNzCogTHiDUyQ2fEGhkBUE%2BLoG2xgaGCg4xni6hvs6uMaZRsc%0AHBIfHBLs66Tnq%2BdrGByiZ2hgqOMf4Opnm5aYU5yqDwAgJB2r).

1999 – 2020 from Bank of Italy, Money and Banking, Italian components of the monetary aggregates of the euro area, Sum of two series: Currency in circulation held by the public + Italian contribution to euro-area M2, excluding currency held by the public, December values (online available at www.bancaditalia.it)

Short–term interest rate (nominal, percent per year)

1870 – 1871 & 1885 – 1914 from Neal, Larry D., and Marc D. Weidenmier. "Crises in the global economy from tulips to today." Globalization in historical perspective. University Of Chicago Press, 2003. 473-514. Open Market Rate, Monthly, End of Year Value. (accessible online at http://ebutts05.tripod.com/nealweidenmiergsd/)

1922 – 1929 from Statistisches Handbuch der Weltwirtschaft 1936. Series: Privatdiskont, Mailand.

1930 – 1938 from League of Nations, International Statistical Yearbook (various issues), Rates prevailing in the capital or chief commercial city. Bons du Tresor. League of Nations, Geneva. Average annual rate.

1939 – 1965 from Banca d'Italia (2012). Table "Tassi del mercato monetario e finanziario (1938–1965; media del periodo – per cento)", Series "Buono ordinario del tresoro, 10–12 mesi (BOT, 10–12 mesi)".

1966 – 1968 from Homer, S. and R. Sylla (2005). A History of Interest Rates, Fourth Edition. Wiley Finance. T-bill rate.

1969 – 1977 from International Monetary Fund. International Financial Statistics (2016). Interest Rates – Money Market Rate.

1978 – 2020 from International Monetary Fund (2021). International Financial Statistics. Interest Rates – Treasury Bill Rate – Percent per Anum.

Long–term interest rate (nominal, percent per year)

1870 – 1913 sum of "Yield on consols" (from Bank of England, Three centuries of macroeconomic data, Series: Yield on consols) and "Spread on consols" (from Clemens, M. A. and Williamson, J. G. (2004). Wealth bias in the first global capital market boom, 1870–1913. The Economic Journal.)

1914 – 1918 Investor's Monthly Manual; Chain linked

1919 – 1930 from Bordo, Michael D., Barry Eichengreen, Daniela Klingebiel, and Maria Soledad Martinez–Peria. 2001. "Is the Crisis Problem Growing More Severe?" Economic policy: A European Forum 32: 51–75.

1931 – 1937 from Banca D'Italia. Statistiche Storiche.Serie storiche sull'attività di banche e altre istituzioni finanziarie, 1861-2010 . Tassi di interesse bancari dal 1861 al 2010 - tassi di interesse attivi - tassi di interesse sui prestiti - a medio-lungo termine. Available at: https://www.bancaditalia.it/statistiche/storiche

1938 – 1945 from Banca D'Italia. Statistiche Storiche. Tabelle storiche tratte dai volmi della collana storica della banca d'italia. Tassi del mercato monetario e finanzieario. Titoli di stato - Totale. Available at: https://www.bancaditalia.it/statistiche/storiche/tabelle-csbi/tav21/tav21.pdf

1946 – 1947 from Schmelzing, P. (2020). Eight centuries of global real interest rates, R-G, and the 'suprasecular' decline, 1311-2018. Bank of England Staff Working Paper No. 845.

1948 – 2020 International Monetary Fund (2021). International Financial Statistics (IFS). Data reports “Economic indicators (IFS)”, Section “Interest rates”, Series “Government Bonds”.

Current Account (Converted to billions ITL)

1870 – 2007 from B. Mitchell (2013), International Historical Statistics: Europe 1750 – 2005, Pallgrave MacMillen, London. Series: OCB (overall current balance). in USD -> transformed into Lira via JST exchange rate series. Level.

2008 – 2020 International Monetary Fund (2021), World Economic Outlook. Current Account. Level.

Imports & Exports (Converted to billions ITL)

1870 – 2011 from Baffigi, Alberto (2011), Italian National Accounts, 1861–2011, Quaderni di Storia Economica, Number 18 – October 2011. Not pdf, but xls file (see Data Sources folder) -> online pdf and xls file differ for WW2 years. Chain-linked.

2012 – 2020 from International Monetary Fund (2021), International Financial Statistics: National Accounts, Expenditure, Gross Domestic Product, External Balance of Goods and Services, Exports/Imports of Goods and Services, Nominal, Domestic Currency.

Government Revenues (Converted to billions ITL)

1870 – 1967 from Mauro, Paolo, Rafael Romeu, Ari Binder, Asad Zaman (2013), “A Modern History of Fiscal Prudence and Profligacy”, IMF Working Paper No. 13/5. Ratio multiplied with GDP series from JST dataset. Level.

1968 – 1993 from Mitchell, Brian (2003), International Historical Statistics: Europe, 1750–2000. Basingstoke: Palgrave Macmillan. Total Central Government Revenue. Level.

1994 – 2020 from OECD, OECD.Stat. Database “OECD national accounts statistics,” Dataset “General government accounts,” Table 12 “Government deficit/surplus, revenue, expenditure, and main aggregates,” Sector GS1311 “Central government,” Measure “National currency, current prices,” Series GTR “Total general government revenue”. Level.

Government Expenditure (Converted to billions ITL)

1870 – 1967 from Mauro, Paolo, Rafael Romeu, Ari Binder, Asad Zaman (2013), “A Modern History of Fiscal Prudence and Profligacy”, IMF Working Paper No. 13/5. Ratio multiplied with nominal GDP series from JST dataset.

1968 – 1994 from Mitchell, Brian (2003), International Historical Statistics: Europe, 1750–2000. Basingstoke: Palgrave Macmillan. Total Central Government Expenditure.

1995 – 2020 from OECD, OECD.Stat. Database “OECD national accounts statistics,” Dataset “General government accounts,” Table 12 “Government deficit/surplus, revenue, expenditure, and main aggregates,” Sector GS1311 “Central government,” Measure “National currency, current prices,” Series GTE “Total general government expenditure”.

Public debt-to-GDP ratio

1870-2007 from Banca D'Italia. Statistics. Historical Statistics. Excel file: Italian Public debt since national unification, 1861-2007 (only in Italian). Series: Debito delle Amministrazioni

pubbliche (consolidato). online from https://www.bancaditalia.it/statistiche/tematiche/stat-storiche/stat-storiche-economia/index.html Divided by GDP from JST dataset.

2008-2020 IMF eLibrary World Economic Outlook. Series: General government gross debt (percent of GDP). Online from http://www.imf.org/external/pubs/ft/weo/2015/02/weodata/index.aspx

USD exchange rate (local currency/USD)

1870 - 1880 from Denzel. M.A. (2010). Handbook of World Exchange Rates, 1590-1914. . ITL/GBP exchange rate multiplied with the GBP/USD exchange rate (see USD exchange rate of the U.K.).

1881 – 1912 Banca D'Italia. Statistiche Storiche. Table: Tassi di cambio della lira 1861-1979

1913 – 1945 from Lawrence H. Officer, "Exchange Rates Between the United States Dollar and Forty-one Currencies,", MeasuringWorth, 2015 http://www.measuringworth.com/exchangeglobal/

1946 - 1955 from Reinhart, C. M. & Rogoff, K. S. (2010). From financial crash to debt crisis. (Black) market exchange rate.

1956 - 2020 from International Financial Statistics. IMF eLibrary. Nominal Exchange Rate (domestic currency / US Dollar) (end of period).

Note: We assume a Italian lira-euro exchange rate of 1936.27 where necessary.

Peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1-2, all 3-6=0); broad peg category including crawling pegs.

2008 – 2020 extension of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1-2, all 3-6=0); broad peg category including crawling pegs.

Strict peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1, all 2-6=0); strict peg category excluding crawling pegs.

2008 – 2020 extension of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1, all 2-6=0); strict peg category excluding crawling pegs.

Exogenous monetary policy shocks

Exogenous variation in the short-term interest rate from Òscar Jordà, Moritz Schularick, Alan M. Taylor and Felix Ward, 2019. “Global financial cycles and risk premiums”. IMF Economic Review, Volume 67 Number 1, pp. 109-150, which uses the identification strategy using local projection with instrumental variables laid out in Òscar Jordà, Moritz Schularick and Alan M. Taylor, 2020. “The effects of quasi-random monetary experiments”. Journal of Monetary Economics 112: 22-40.

House prices (nominal index, 1990=100)

1970 – 2020 from OECD housing prices database. Nominal series. Rebased 1990=100.

Unemployment rate (percent)

1919 - 1936: from Zamagni, Vera (1994), Una ricostruzione dell’andamento mensile dei salari industrial e dell’occupazione, Table 10: Disoccupazione (1929=100), media. Ricerche per la storia della banca d’Italia, Volume V, Editori Laterza. Chainlinked.

1937 - 1939, 1947 - 1981: from Mitchell, Brian (2013), International Historical Statistics: Europe, 1750 – 2010, Table: B2 Europe: Unemployment, Palgrave Macmillan, London. Chainlinked.

1982 – 2020: from ILOSTAT (2021), Table: “Unemployment rate by sex and age (%) - Annual” based on the EU Labour force survey accessible online at: https://ilostat.ilo.org/data/.

Wages (index, 1990=100)

1871 - 1913 International Historical Statistics. Europe’s Labour Force – Money/Wages in Industry. Hourly wages of males in all activities to 1900, and daily wages subsequently. Chainlinked.

1914 - 1937 International Historical Statistics. Europe’s Labour Force – Money/Wages in Industry. Daily wages of males in industry and transport. Chainlinked.

1938 - 1944 and 1946 - 1949 International Historical Statistics. Europe’s Labour Force – Money/Wages in Industry. Daily wages in all activities. Chainlinked.

1950 - 1989 International Monetary Fund International Financial Statistics database (IFS). Labor Markets, Wage Rates, Index. Accessible online at http//data.imf.org/. Chainlinked.

1990 - 2020 OECD. OECD statistics. Average annual wages. Current prices. Levels. Accessible online at http//stats.oecd.org/.

Credit Data (Converted to billions ITL)

Total loans to non-financial private sector

1870 – 1949 from Riccardo De Bonis & Fabio Farabullini & Miria Rocchelli & Alessandra Salvio & Andrea Silvestrini, 2013. "A quantitative look at the Italian banking system: evidence from a new dataset since 1861," Working Papers 9, Department of the Treasury, Ministry of the Economy and of Finance.

1950 – 1994 sum of Total Loans to Households and Total Loans to Business.

1995 – 2013 from Riccardo De Bonis & Andrea Silvestrini, 2013. "The Italian financial cycle: 1861–2011," Cliometrica: DOI 10.1007/s11698–013–0103–5, and personal correspondence.

2014 – 2020 sum of Total Loans to Households and Total Loans to Business

Mortgage loans to non-financial private sector

1870 – 1937 from Banca d'Italia (1967), ibid. Table 28 "Bilancio complessivo die gruppi di aziende del sistema bancario".

1938 – 1965 from F. Cotula (1999), Serie Contributi, Ricerche per la Storia della Banca d'Italia, Volume III, Stabilità e Sviluppo negli Anni Cinquanta, 3. Politica Bancaria e Struttura del Sistema Finanziario. Table 3a, p893, Table 9 p926.

1966 – 1996 growth rate calculated from R. De Bonis, F. Farabullini, M. Rocchelli & A. Salvio (2012), Quaderni di Storia Economica: Nuove serie storiche sull'attività di banche e alter istituzioni finanziarie dal 1861 al 2011: che cosa ci dicono?". Table 1 "Principali voci dell'attivo e del passivo di bilancio delle banche: 1861–2010", Series "Prestiti medio–lungo termine".

1997 – 2013 from Banca d'Italia (various years), Bollettino Statistico. Series "Mutui, totale".

2014 – 2020 Bank of Italy "Mortgage loans to Total resident sectors (excluded MFI)", (accessible online: https://infostat.bancaditalia.it/inquiry/home?spyglass/taxo:CUBESET=&ITEMSELEZ=&OPEN=false/&ep:LC=EN&COMM=BANKITALIA&ENV=LIVE&CTX=DIFF&IDX=1&/view:CUBEIDS=&graphMode=), search in database "mortgage", Banks and Financial Institutions: Financing and Funding by Sector and Geographical Area, Loans - by technical form, geographical area and customer sector, counterpart institutional sector: Mortgage Loans

Total Loans to Households

1950 – 1994 from Banca d'Italia, R. Bonci, M. Coletta (2006), I Conti finanziari dell' Italia dal 1950 a oggi, Famiglie Passività finanziarie, Prestiti. Table A2 (note 1989: average of 1988 & 1990 due to break in series).

1995 – 2013 from Banca d'Italia (2019). Supplemento al Bollettino Statistico. La Ricchezza delle Famiglie Italiane. Series "Prestiti". Accessible online: https://www.bancaditalia.it/pubblicazioni/ricchezza-famiglie-societa-non-fin/2017-ricchezza-famiglie-societa-non-fin/index.html

2014 – 2020 from Bank of Italy Sum of "Total short-term loans, issued by households and non-profit inst. serving households, stocks" and "Total medium/long-term loans, issued by households and non-profit inst. serving households, stocks", (accessible online:https://infostat.bancaditalia.it/inquiry/home?spyglass/taxo:CUBESET=&ITEMSELEZ=&OPEN=false/&ep:LC=EN&COMM=BANKITALIA&ENV=LIVE&CTX=DIFF&IDX=1&/view:CUBEIDS=&graphMode=), search in database "Households", Financial Accounts: Households and non-profit institutions serving households

Total Loans to Business

1950 – 1994 from Banca d'Italia Servizio Studi, R. Bonci, M. Coletta (2006), I Conti Finanziari dell' Italia dal 1950 a oggi. Table A4.

1995 – 2013 residual of Total loans to non-financial private sector and Total Loans to Households.

2014 – 2020 Growth Rates from Bank of Italy "Loans to non-financial companies", (accessible online:https://infostat.bancaditalia.it/inquiry/home?spyglass/taxo:CUBESET=&ITEMSELEZ=&OPEN=false/&ep:LC=EN&COMM=BANKITALIA&ENV=LIVE&CTX=DIFF&IDX=1&/view:CUBEIDS=&graphMode=), search in database "Loans", Banks and Financial Institutions: Financing and Funding by Sector and Geographical Area, Loans - by technical form, geographical area and customer sector, counterpart institutional sector: non-financial companies.

Corporate Debt

1948–1949 lending to non-financial corporate business from Karsten Muller (¨ 2018) "Credit Markets around the World, 1910–2014", from SSRN (accessible online at https://ssrn.com/ abstract=3259636).

1950–1994 financial accounts data on total non-equity liabilities from Bonci and Coletta (2012) "Italy's Financial Accounts since 1950", SSRN: http://ssrn.com/abstract=2120474.

1995–2012 OECD financial accounts data on total non-equity liabilities of the private non-financial business sector.

2013–2018 eurostat financial accounts data on total non-equity liabilities of the private non-financial business sector.

2019-2020 bank loans to business and capital market debt from "Credit to the non-financial sector" database of the Bank of International Settlements (accessible online at https: //www.bis.org/statistics/totcredit.htm)

Bank balance sheet ratios

(Ratios in %, underlying data in billions ITL)

Capital ratio

Capital ratio = Capital / Total Assets

<u>Total Assets</u>

1870-1936 Bank of Italy, unpublished long run data series on total assets of the banking system, send by Francesco Vercelli. Chainlinked.

1937 De Bonis R., Farabullini F., Rocchelli M. e Salvio A. (2012 and update), Nuove serie storiche sull'attività di banche e altre istituzioni finanziarie dal 1861 al 2011: che cosa ci dicono?, Banca d'Italia – Quaderni di Storia economica, 26. Chainlinked with growth rate of sum of "Depositi", "Obligazioni emesse" and "Capitale e Riserve".

1938-2010 Bank of Italy, unpublished long run data series on total assets of the banking system. Series adjusted in years 1976-1982 to reflect growth rates of sum of "Depositi", "Obligazioni emesse" and "Capitale e Riserve" from De Bonis R., Farabullini F., Rocchelli M. e Salvio A. (2012 and update), Nuove serie storiche sull'attività di banche e altre istituzioni finanziarie dal 1861 al 2011: che cosa ci dicono?, Banca d'Italia – Quaderni di Storia economica, 26.

2011-2014 ECB Balance Sheet Indicators, Total Assets, Chainlinked.

2015-2020 Bank of Italy, Total Assets, Series Key "BAM_BSIB.M.1070001.52000199.9.101.WRDBI2.S0.1000.997", Chainlinked.

Capital

1870-1936 Bank of Italy, unpublished long run data series send by Francesco Vercelli. "Capital ratio". Chainlinked (level difference in capital ratio in 1937).

1937 De Bonis R., Farabullini F., Rocchelli M. e Salvio A. (2012 and update), Nuove serie storiche sull'attività di banche e altre istituzioni finanziarie dal 1861 al 2011: che cosa ci dicono?, Banca d'Italia – Quaderni di Storia economica, 26. "Capitale e Riserve". Levels.

1938-1945 Unpublished long run data series on total assets of the banking system, send by Francesco Vercelli. Capital ratio multiplied with Total Assets.

1946-1991 Bank of Italy, unpublished long run data series send by Francesco Vercelli. Chainlinked capital ratio multiplied with Total Assets.

1992-2007 OECD Statistical Supplement, "Tier1 Capital" – "Supervisory Reductions" divided by "Total assets at end of the year". Levels of capital ratio multiplied with Total Assets.

2008-2020 ECB Consolidated Banking Data, series "Full sample (All banking groups / stand-alone banks irrespective of their accounting / supervisory reporting framework), Tangible equity [% of total assets]. Levels of capital ratio, multiplied with Total Assets.

Loans-to-Deposits ratio

Loans-to-Deposits ratio = Loans / Deposits

Deposits

1870-2014 De Bonis R., Farabullini F., Rocchelli M. e Salvio A. (2012 and update), Nuove serie storiche sull'attività di banche e altre istituzioni finanziarie dal 1861 al 2011: che cosa ci dicono?, Banca d'Italia – Quaderni di Storia economica, 26. Series "Depositi". Levels.

2015-2020 Bank of Italy, "Total Deposits of Domestic Other Residents", Chainlinked, series ID: BAM_BSIB.M.1070001.52000100.9.101.IT.S1P.1000.997.

Loans

1870-2014 De Bonis R., Farabullini F., Rocchelli M. e Salvio A. (2012 and update), Nuove serie storiche sull'attività di banche e altre istituzioni finanziarie dal 1861 al 2011: che cosa ci dicono?, Banca d'Italia – Quaderni di Storia economica, 26. Series "Prestiti- Totali". Levels.

2015-2020 Bank of Italy, "Total Loans of Banks", Chainlinked, series ID BAM_BSIB.M.1070001.52000700.9.101.IT.S1.1000.997.

Noncore ratio

Noncore ratio = (Total Assets – Capital - Deposits) / (Total Assets - Capital)

JAPAN

(Data in trillions JPY)

Macro Data

Population

1870 – 2008 from Angus Maddison Database (2008), ibid. Table 1 "Population levels, 1AD–2030AD" (accessible online at http://www.ggdc.net/maddison/Historical_Statistics/horizontal–file_02–2010.xls).

2009 – 2017 growth rates from International Monetary Fund (Aug, 2019), World Economic Outlook. Subject "People – population" (base year: 2008) (accessible at www.imf.org).

2018 – 2020 growth rates from International Monetary Fund (Oct, 2021), World Economic Outlook. Subject "People – population" (base year: 2008) (accessible at www.imf.org).

GDP (trillions JPY)

1875 – 1884 100-year statistics of the Japanese economy. (p.28). Series: Long-term estimates of national income (by Yuzo Yamada) - National Income. Chainlinked.

1885 – 1940 Global price and income history group. Nominal GDP historical series. http://gpih.ucdavis.edu/. Original source: K. Ohkawa, N. Takamatsu, and Y. Yamamoto. 'Vol. 1 National Income' in K. Ohkawa, M. Shinohara, M. Umemura (eds.), Estimates of Long-Term Economic Statistics of Japan Since 1868 (Tokyo: Tokyo Keizai Shinposha, 1974). Level.

1941 – 1944 & 1946-1959 Mitchell, B. (2013). International Historical Statistics. Series: GNP. Chainlinked.

1960 – 2020 International Monetary Fund (2021), International Financial Statistics. Data Report "Economic indicators", Series "Gross domestic product (in millions) – GDP nominal" (accessible online at https://data.imf.org/).

Real GDP per capita (PPP, 1990 Int$, Maddison)

1870 – 2010 from The Maddison-Project, http://www.ggdc.net/maddison/maddison-project/home.htm, 2013 version. http://www.ggdc.net/maddison/maddison-project/home.htm . Level.

2011 – 2020 from International Monetary Fund. World Economic Outlook. Series: Gross domestic product based on purchasing-power-parity (PPP) per capita GDP. Chain-linked.

Real GDP per capita (index, 2005=100)

1870 – 2004 from R. Barro & and J. Ursúa (2010), Macroeconomic Data Set, Harvard University, Cambridge MA (accessible online at http://scholar.harvard.edu/barro/publications/barro–ursua–macroeconomic–data).

2005 – 2020 growth rate calculated from World Bank (2021), Category "Economic policy and external debt," Series "GDP per capita (constant 2010 US$) (accessible online at http://data.worldbank.org/indicator/NY.GDP.PCAP.KD).

Real consumption per capita (index, 2006=100)

1874 – 2009 from Robert C. Barro and José F. Ursúa (2010), Barro–Ursúa Macroeconomic Data. For respective sources see original data set: http://rbarro.com/data–sets/..

2010 – 2020 from World Bank household final consumption expenditure per capita (constant 2010 US$). Chain linked.

Investment-to-GDP ratio

1885 – 2004 data from Mitchell, Brian (2013), International Historical Statistics: Africa, Asia & Oceania, 1750 – 2005, London. Series GFCF (gross fixed capital formation) divided by GNP (gross national product). (gap in 1945). Level.

2005 – 2020 data from International Monetary Fund (2021), World Economic Outlook. Total investment (percent of GDP). Level.

Consumer prices (index, 1990=100)

1870 – 2000 from Wage differentials and economic growth in India, Indonesia, and Japan, 1800-2001, Bas van Leeuwen. CPI series for Japan.

2001 – 2020 from International Monetary Fund World Economic Outlook (2021). Series "Inflation, average consumer prices" (accessible online at https://www.imf.org/external/pubs/ft/weo/2019/01/weodata/index.aspx). Chainlinked.

Narrow Money (trillions JPY)

1873 – 1954 from Mitchell, B. (2013). International Historical Statistics. Notes in circulation + demand deposits from commercial banks. Level.

1955 – 2016 from International Monetary Fund, International Financial Statistics, (accessible online at http://elibrary–data.imf.org/). M1 seasonally adjusted. Level.

2017 – 2020 from Bank of Japan, BOJ Time-Series Data Search, Money stock (from April 2003), M1/Amounts Outstanding at End of Period/Seasonally Adjusted/Money Stock, frequency: calender year, end.

Broad Money (trillions JPY)

1870 – 1954 from Weber, Warren E. 2000. International Data. 1810-1995. Research Department, Federal Reserve Bank of Minneapolis. M2. http://cdm16030.contentdm.oclc.org/cdm/singleitem/collection/p16030coll4/id/8/rec/5

1955 –2016 from International Monetary Fund, International Financial Statistics, series M2, seasonally adjusted (period average). Level. (accessible online at http://elibrary–data.imf.org/).

2017 – 2020 from Bank of Japan, BOJ Time-Series Data Search, Money stock (from April 2003), M2/Average Amounts Outstanding/Seasonally Adjusted/Money Stock, frequency: calender year, average.

Short–term interest rate (nominal, percent per year)

1879 – 1938 from Bank of Japan (1986), Nihon Ginko Hyakunen–shi Shiryo–hen (The First Hundred Years – Materials), Tokyo. Table 13, Series “Discounts rate BJO”, p424.

1957 – 2017 from International Monetary Fund (2019), International Financial Statistics database (IFS). Section “Economic indicators”, Series “Interest Rates – money market rate” (accessible online at http://data.imf.org/).

2018 – 2020 from Bank of Japan, Short-term Money Market Rates - Call Rate - Uncollateralized Overnight/Average, conversion method: averaged.

Long–term interest rate (nominal, percent per year)

1870 – 1879 sum of “Yield on consols” (from Bank of England, Three centuries of macroeconomic data, Series: Yield on consols) and “Spread on consols” (from Clemens, M. A. and Williamson, J. G. (2004). Wealth bias in the first global capital market boom, 1870–1913. The Economic Journal.)

1880 – 1913 sum of “Yield on consols” (from Bank of England, Three centuries of macroeconomic data, Series: Yield on consols) and “Spread on consols” (from Ferguson, N. and Schularick, M. (2006). The Empire Effect: The Determinants of Country Risk in the First Age of Globalization, 1880-1913. The Journal of Economic History.)

1914 – 1929 from Investor's Monthly Manual. Japanese 4% 1899 Sterling-bond current yield. December values.

1930 – 1963 from Schmelzing, P. (2020). Eight centuries of global real interest rates, R-G, and the 'suprasecular' decline, 1311-2018. Bank of England Staff Working Paper No. 845.

1964 from Hundred-year statistics of the Japanese Economy. P.264 Long-Term Government Securities

1965 – 2016 from International Monetary Fund (2019). International Financial Statistics (IFS). Data reports "Economic indicators (IFS)", Section "Interest rates", Series "Government Bonds".

2017 – 2020: OECD (2021). OECD iLibrary. Long-term interest rates doi: 10.1787/662d712c-en

House prices (nominal index, 1990=100)

1913 – 2008 from Knoll et al. (2014). No price like home: Global house prices, 1870-2012. Year average values.

2008 – 2013 Individual transaction data on detached houses and condominiums covering the whole of Japan from the Land Registry of Japan at the Ministry of Land and Transportation (https://www.mlit.go.jp/totikensangyo/totikensangyo_tk5_000085.html). The index is built at a monthly frequency since 2008 using transaction-based weights and applying a hedonic method based on a time dummy variable model using the rolling window method. Explanatory variables are size, age, location and transaction terms. Chain-linked.

2013 - 2020 from OECD housing prices database. Nominal series. Chain-linked.

Current Account (trillions JPY)

1870 – 1979 from B. Mitchell (2013), International Historical Statistics. Overal current balance. Level. (Note: no data for 1945).

1980 – 2020 International Monetary Fund (2021), World Economic Outlook. CA as % of GDP * nominal GDP = Current Account. Levels.

Imports & Exports (trillions JPY)

1870 – 1947 from B. Mitchell (2007), International Historical Statistics: Africa, Asia & Oceania 1750 – 2005, Pallgrave MacMillen, London. Note: gap in 1944 - 1945. (Note: no data for 1944-1945).

1948 – 2020 from International Monetary Fund, International Financial Statistics: archive, M10 2021, External Trade, Goods, Value of Exports, Free on Board (FOB), Domestic Currency; External trade, Imports, Goods, Value, Cost, Insurance freight, Domestic Currency.

Government Revenues (trillions JPY)

1870 – 1945 Statistics Department of the Bank of Japan (1966), One Hundred Years of Statistics of the Japanese Economy, p. 128. Central Government Finance, Revenue, General Account. Levels

1946 – 1964 from Statistics Bureau, Director–General for Policy Planning & Statistical Research and Training Institute (2008), Historical Statistics of Japan.

1965 – 1969 from International Financial Statistics, Budgetary Central Government, Revenue, 2001 Manual, Cash, National Currency.

1970 – 1993 Annual Report on National Accounts 2000. Table: Current and Capital Transactions by the Sub-sectors of General Government, current receipts central government. Available online http://www.esri.cao.go.jp/en/sna/data/kakuhou/files/kako_top.html

1994 – 2020 from OECD, OECD.Stat. Database “OECD national accounts statistics,” Dataset “General government accounts,” Table 12 “Government deficit/surplus, revenue, expenditure, and main aggregates,” Sector GS1311 “Central government,” Measure “National currency, current prices,” Series GTR “Total general government revenue”.

Government Expenditure (trillions JPY)

1870 – 1964 Statistics Department of the Bank of Japan (1966), One Hundred Years of Statistics of the Japanese Economy. p. 128. Central Government Finance, Expenditure, General Account. Levels

1965 - 1995 from Statistics Bureau, Director–General for Policy Planning & Statistical Research and Training Institute (2008), Historical Statistics of Japan. General account. Levels

1996-2009 Cabinet Office. Annual Report on National Accounts. Table: National Disposable Income and its Use Account, Series: final consumption expenditure general government (available online http://www.esri.cao.go.jp/en/sna/data/kakuhou/files/kako_top.html)

2010 – 2020 from OECD, OECD.Stat. Database “OECD national accounts statistics,” Dataset “General government accounts,” Table 12 “Government deficit/surplus, revenue, expenditure, and main aggregates,” Sector GS1311 “Central government,” Measure “National currency, current prices,” Series GTR “Total general government expenditure”.

Public debt-to-GDP ratio

1875 – 1969 from Abbas et al (2010). A historical public debt database. IMF Working Paper WP/10/245. https://www.imf.org/external/pubs/cat/longres.aspx?sk=24332.0. Level. (Note: no data for 1945).

1970 – 2020 from European Commission, Economic and Financial Affairs, AMECO database, Chapter 18 Gross Public Debt.18.2 – Based on ESA 2010 and former definitions. Gross Public Debt (linked series) (UDGGL). Percentage of GDP at market prices (excessive deficit procedure) (data accessible online at http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm). Level.

USD exchange rate (local currency/USD)

1870 - 1880 from Denzel. M.A. (2010). Handbook of World Exchange Rates, 1590-1914. . Yen per US Dollar (contained in this dataset) (gap: 1871 and 1872).

1881 – 1915 from Statistics Department of the Bank of Japan (1966), One Hundred Years of Statistics of the Japanese Economy, p. 318. Exchange rate.

1916 – 1941 from Lawrence H. Officer, "Exchange Rates Between the United States Dollar and Forty-one Currencies,", MeasuringWorth, 2015 http://www.measuringworth.com/exchangeglobal/

1942 – 1945 from Bordo, M. D. & Jonung, L. (1996) Monetary Regimes, Inflation And Monetary Reform: An Essay in Honor of Axel Leijonhufvud.

1946 - 1970 from Reinhart, C. M. & Rogoff, K. S. (2010). From financial crash to debt crisis. (Black) market exchange rate.

1971 - 2020 from International Financial Statistics. IMF eLibrary. Nominal Exchange Rate "Exchange Rates, National Currency Per U.S. Dollar, End of Period, Rate".

Peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1-2, all 3-6=0); broad peg category including crawling pegs.

2008 – 2020 extension of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1-2, all 3-6=0); broad peg category including crawling pegs.

Strict peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1, all 2-6=0); strict peg category excluding crawling pegs.

2008 – 2020 extension of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1, all 2-6=0); strict peg category excluding crawling pegs.

Exogenous monetary policy shocks

Exogenous variation in the short-term interest rate from Òscar Jordà, Moritz Schularick, Alan M. Taylor and Felix Ward, 2019. "Global financial cycles and risk premiums". IMF Economic Review, Volume 67 Number 1, pp. 109-150, which uses the identification strategy using local projection with instrumental variables laid out in Òscar Jordà, Moritz Schularick and Alan M. Taylor, 2020. "The effects of quasi-random monetary experiments". Journal of Monetary Economics 112: 22-40.

Unemployment rate (percent)

1930 - 1938 and 1948 - 1952 from Mitchell, Brian (2013), International Historical Statistics Africa, Asia, Oceania, 1750 – 2010, Table B2 Asia Unemployment, Palgrave Macmillan, London. Chainlinked.

1953 - 2020 from ILOSTAT (2021), Table "Unemployment rate by sex and age" based on the Labor force survey (LFS) accessible online at https//ilostat.ilo.org/data/.

Wages (index, 1990=100)

1870 - 1884, 1888 - 1891, 1893 and 1915 - 1919 Williamson (1998) “Real Wages and Relative Factor Prices in the Third World Before 1940 What do they tell us about the Sources of Growth?”. Nominal daily wage for carpenters in Japan until 1886 and daily wage of carpenters in Tokyo thereafter. Chainlinked.

1885 - 1887, 1892, 1894 - 1914 and 1920 - 1925 TOKYO DEPT. OF FINANCE GPO. “Financial and Economic Annual of Japan”, various years. Average nominal daily wage of 8 non-agricultural jobs. Chainlinked.

1926 - 1945 International Historical Statistics. Africa, Asia, Oceania Labour Force. Average daily rates for males. Chainlinked.

1946 - 1947 United Nations. Monthly Bulletin of Statistics, January 1951. Nominal monthly wage. Chainlinked.

1948 - 1989 International Monetary Fund International Financial Statistics database (IFS). Labor Markets, Wage Rates, Index. Accessible online at http//data.imf.org/. Chainlinked.

1990 - 2020 OECD. OECD statistics. Average annual wages. Current prices. Levels. Accessible online at http//stats.oecd.org/.

Credit Data (trillions JPY)

Total loans to non-financial private sector

1874 – 1940 from Nihon kinyu no suryo bunseki (Japanese Edition), “Flow of Funds Accounts of Prewar Japan: 1871–1940,” Bank Assets, Loans

1946 – 48 from growth rate calculated from Nihon Ginkō Tōkeikyoku & Nihon Ginkō Chōsakyoku (various), Honpō–Keizai–Tōkei, Nihon Ginkō Tōkeikyoku, Tokyo. Table “Outstanding loans by kind of collateral” (various issues), Series “Total”.

1949 – 2020 sum of Total Loans to Households and Total Loans to Business (exception: 1992 value has been interpolated, simple average of 1991 value and 1993 value).

Mortgage loans to non-financial private sector

1893 – 1940 from Shin’ichi Goto (1970): Nihon no Kin'yu Tōkei (Japanese Financial Statistics). Table 47 “Lending of ordinary banks by type of collateral, real estate and foundation”, Series “Real estate and foundation”.

1946 – 1952 growth rate calculated Nihon Ginkō Tōkeikyoku & Nihon Ginkō Chōsakyoku (various), Honpō–Keizai–Tōkei, Nihon Ginkō Tōkeikyoku, Tokyo. Table “Outstanding loans of all banks by kind of collateral” (various issues), Series “Loans on real estate, floating mortgages & vessels” (base year:1953).

1953 – 2020 sum of Loans to Households Secured by Real Estate and from Bank of Japan Time-Series Database. Loans and Bills Discounted by sector, Series “Real Estate/Outstanding/Banking Accounts/Shinkin Banks” + Series “Real Estate/Outstanding/Banking Accounts, Trust Accounts and Overseas Office Accounts/Domestically Licensed Banks”, Frequency: Calender year, Conversion method: End.

Total Loans to Households

1948 – 1952 growth rate calculated from Nihon Ginkō Tōkeikyoku & Nihon Ginkō Chōsakyoku (various), Honpō–Keizai–Tōkei, Nihon Ginkō Tōkeikyoku, Tokyo. Table “All banks: loans classified by industry” (various issues), Series “Funds for personal consumption & tax payment / private households & personal (from 1951)” (base year: 1953).

1953 – 1961 growth rate calculated from Nihon Ginkō Tōkeikyoku & Nihon Ginkō Chōsakyoku (various), Honpō–Keizai–Tōkei, Nihon Ginkō Tōkeikyoku, Tokyo. Table “Outstanding loans and discounts of all banks by industry (total)”, Series “Private persons” (base year: 1962).

1962 – 1981 growth rate calculated from Nihon Ginkō Tōkeikyoku & Nihon Ginkō Chōsakyoku (various), Honpō–Keizai–Tōkei, Nihon Ginkō Tōkeikyoku, Tokyo. Table “All banks (banking accounts): Loans classified by industry” (various issues), Series “Private persons” + Keizai–Tōkei–Nenpō (various), Table “All banks (trust accounts): Loans classified by industry” (various issues), Series “Private persons” (base year: 1982).

1982 – 2000 from Bank of Japan Statistics (various), Deposits and loans. “Loans and bills discounted by sector (by type of major industries)”, Series “Domestically licensed banks, outstanding, households” + (Series “Shinkin Banks (excluding overdrafts), outstanding, individuals” [1982-1994] and “Shinkin banks, outstanding, households” [1995-2014].)

2000 – 2020 Bank of Japan Time-Series Database. Loans and Bills Discounted by sector. Loans and Bills Discounted by Sector (Outstanding, Loans for Fixed Investment): Sum of Households/Outstanding/Banking Accounts, Trust Accounts and Overseas Office Accounts/Domestically Licensed Banks + Households/Outstanding/Banking Accounts/Shinkin Banks. Frequency: Calender year, Conversion method: End.

Total Loans to Business

1948 – 1959 from Nihon Ginkō Tōkeikyoku & Nihon Ginkō Chōsakyoku (various), Honpō–Keizai–Tōkei, Nihon Ginkō Tōkeikyoku, Tokyo. Table “All banks: Loans classified by industry”, Series “Total without lending to private households, local governments, and financial institutions”.

1960 – 1961 from Nihon Ginkō Tōkeikyoku & Nihon Ginkō Chōsakyoku (various), Honpō–Keizai–Tōkei, Nihon Ginkō Tōkeikyoku, Tokyo. Table “Outstanding loans and discounts of all banks by industry”, Series “Total (without lending to private persons, local governments, and finance)”.

1962 – 1984 calculated from Nippon Ginkō Tōkeikyoky (various), Keizai–Tōkei–Nenpō, Nippon Ginkō, Tokyo. Table “All banks (banking accounts): Loans classified by industry”, Series “Total without loans to households, local government, financials, and companies overseas” + Table “All banks (trust accounts): Loans classified by industry”, Series “Total without loans to households, local government, financials, and companies overseas”.

1985 calculated as simple average of 1984 value and 1986 value.

1986 – 2004 calculated from Bank of Japan (various), Statistics 5 Deposits and Loans. Table 149–156 “Loans and bills discounted by sector (by type of major industries)”, Series “Domestically licensed banks: Total without loans to local governments, households, finance and insurance, and overseas yen loans and domestic loans transferred to overseas” + Series

“Shinkin Banks: Total without loans to local governments, households, finance and insurance, and overseas yen loans and domestic loans transferred to overseas”.

2005 – 2020 calculated from Bank of Japan Time-Series Database. Loans and Bills Discounted by sector. Loans and Bills Discounted by Sector (Outstanding, Loans for Fixed Investment). For Domestically Licensed Banks (Banking Accounts, Trust Accounts and Overseas Office Accounts) and Shinkin Banks: Sum of total outstanding loans minus outstanding loans for Finance and Insurance, Local Governments, Households, and Overseas Yean Loans and Domestic Loans Tranferred Overseas. Frequency: Calender year, Conversion method: End.

Corporate Debt

1948–1963 from Nihon Ginko T ¯ okeikyoku and Nihon Gink ¯ o Ch ¯ osakyoku (various) as well as ¯ Honpo–Keizai–T ¯ okei and Nihon Gink ¯ o To ¯ okeikyoku, Tokyo. ¯ 1948-59: Table “All banks: Loans classified by industry”, Series “Total without lending to private households, local governments, and financial institutions”. 1960-61: Table “Outstanding loans and discounts of all banks by industry”, Series “Total (without lending to private persons, local governments, and finance)”. 1962-63: Table “All banks (banking accounts): Loans classified by industry”, Series “Total without loans to households, local government, financials, and companies overseas” + Table “All banks (trust accounts): Loans classified by industry”, Series “Total without loans to households, local government, financials, and companies overseas”.

1964–1979 bank loans to business and capital market debt from “Credit to the non-financial sector” database of the Bank of International Settlements (accessible online at https: //www.bis.org/statistics/totcredit.htm).

1980–2012 OECD financial accounts data on total non-equity liabilities of the private non-financial business sector.

2013–2020 bank loans to business and capital market debt from “Credit to the non-financial sector” database of the Bank of International Settlements (accessible online at https: //www.bis.org/statistics/totcredit.htm).

Bank balance sheet ratios

(Ratios in %, underlying data in trillions JPY)

Capital ratio

Capital ratio = Capital / Total Assets

Total Assets (trillions JPY)

1893–1929 100-year statistics of the Japanese Economy. Total liabilities estimated as sum of deposits, capital, debentures issued and other liabilities, holding the share of other liabilities constant at the average 1930-1940 value.

1930-1946 Takabatake, Economic Statistics of Japan (1955), Bank of Japan, series “Assets”. Levels. (1943 and 1944 values are estimated using growth rates of deposits).

1947-1972 Economic Statistics Annual (1972), Editor and Publisher: Sachio Watanebe, Tokyo, All banks, series “Total Assets or Liabilities and Net Worth”. Levels.

1973-1974 Bank of Japan. Assets and Liabilities of City Banks (Banking Accounts). Series “Total Including Other Accounts”. Assets and Liabilities of Regional Banks (Banking Accounts). Series “Total Including Other Accounts”. Files cdab0290 and cdab0300 from BoJ, sent by Ryoji Koike. Interpolated accounting for market share of city and regional banks in 1970-1972 and 1975-1976.

1975-2005 Bank of Japan, 14-3-a Assets and Liabilities of Domestically Licensed Banks - Banking Accounts (1975--2005), series “Total (assets, or liabilities and capital accounts). Levels.

2006-2014 Bank of Japan, Assets and Liabilities of Domestically Licensed Banks (Banking Accounts), Financial Institutions Accounts, work sheet 72, Assets (concluded), series “Total”. Levels.

2015-2020 Bank of Japan Data Online Data: Assets and Liabilities of Domestically Licensed Banks (Banking Accounts) (End of month). Series key: BS02'FAABK_FAAB2DBEAS. Levels.

Capital (trillions JPY)

1893–1933 Japanese Banking, A history, 1859-1959, Norio Tamaki. Sum of Private/Ordinary Banks, series “Paid-in Capital” + “Reserves” and Savings Banks, series “Paid-in Capital” + “Reserves”. Chainlinked.

1934-1972 Economic Statistics Annual (1972), Editor and Publisher: Sachio Watanebe, Tokyo. All banks, “Capital” + “Reserves”. Levels.

1973-1974 Bank of Japan. Assets and Liabilities of City Banks (Banking Accounts). Sum of series “Common stock”, “New stock subscriptions”, “Legal reserves”, “Earned surplus – voluntary reserves”. Assets and Liabilities of Regional Banks (Banking Accounts). Sum of series “Common stock”, “New stock subscriptions”, “Legal reserves”, “Earned surplus – voluntary reserves”. Files cdab0290 and cdab0300 from BoJ, sent by Ryoji Koike. Interpolated accounting for market share of city and regional banks in 1970-1972 and 1975-1976.

1975-1981 Bank of Japan, 14-3-a Assets and Liabilities of Domestically Licensed Banks - Banking Accounts (1975--2005), sum of series “Common stock”, “Capital Surplus” and “Retained earnings” less “Profits and losses for the term” (in the years 1975-1981 these are included in “undivided profits”). Levels.

1982-1991 Bank of Japan, 14-3-a Assets and Liabilities of Domestically Licensed Banks - Banking Accounts (1975--2005), sum of series “Common stock”, “Capital Surplus” and “Retained Earnings”. Levels.

1992-2005 Bank of Japan, 14-3-a Assets and Liabilities of Domestically Licensed Banks - Banking Accounts (1975--2005), series “Stockholder’s equity”. Levels.

2006-2014 Bank of Japan, Assets and Liabilities of Domestically Licensed Banks (Banking Accounts), Financial Institutions Accounts, work sheet 78, Liabilities and stockholder’s equity (concluded), series “Net Assets”. Levels.

2015-2020 Bank of Japan Data Online Data: Assets and Liabilities of Domestically Licensed Banks (Banking Accounts) (End of month). Series key: BS02'FAABK_FAAB2DBECA. Levels.

Loans-to-Deposits ratio

Loans-to-Deposits ratio = Loans / Deposits

Deposits (trillions JPY)

1893-1897 Japanese Banking, A history, 1859-1959, Norio Tamaki. Principal accounts of Private/Ordinary Banks, Series „Deposits“. Chainlinked.

1898–1946 100-year statistics of the Japanese Economy. Principal accounts of all banks. Series “Deposits”. Levels.

1947-1972 Economic Statistics Annual (1972), Editor and Publisher: Sachio Watanebe, Tokyo, All banks, series “Total Deposits”. Levels.

1973-1974 Bank of Japan. Assets and Liabilities of City Banks(Banking Accounts). Series “Deposits”. Assets and Liabilities of Regional Banks (Banking Accounts). Series “Deposits”. Files cdab0290 and cdab0300 from BoJ, sent by Ryoji Koike. Interpolated accounting for market share of city and regional banks in 1970-1972 and 1975/1976.

1975-2005 Bank of Japan, 14-3-a Assets and Liabilities of Domestically Licensed Banks - Banking Accounts (1975--2005), series “Deposits”. Levels.

2006-2014 Bank of Japan, Assets and Liabilities of Domestically Licensed Banks (Banking Accounts), Financial Institutions Accounts, work sheet 73, Liabilities and stockholder’s equity (continued), series “Deposits”. Levels.
2015-2020 Bank of Japan Data Online Data: Assets and Liabilities of Domestically Licensed Banks (Banking Accounts) (End of month). Series key: BS02'FAABK_FAAB2DBEL01. Levels.

Loans (trillions JPY)

1893-1897 Japanese Banking, A history, 1859-1959, Norio Tamaki. Principal accounts of Private/Ordinary Banks, Series „Lendings“. Chainlinked.

1898–1929 100-year statistics of the Japanese Economy. Principal accounts of all banks. Series “Lendings”. Levels.

1930-1946 Economic Statistics of Japan (1955), Takabatake, Bank of Japan, series “Loans and Bills discounted”. Levels.

1947-1972 Economic Statistics Annual (1972), Editor and Publisher: Sachio Watanebe, Tokyo, All banks, series “Total Loans”+”Bills discounted”. Levels.

1973-1974 Bank of Japan. Assets and Liabilities of City Banks (Banking Accounts). Series “Loans and Bills Discounted”. Assets and Liabilities of Regional Banks (Banking Accounts). Series “Loans and Bills Discounted”. Files cdab0290 and cdab0300 from BoJ, sent by Ryoji Koike. Interpolated accounting for market share of city and regional banks in 1970-1972 and 1975/1976.

1975-2005 Bank of Japan, 14-3-a Assets and Liabilities of Domestically Licensed Banks - Banking Accounts (1975--2005), series “Loans and Bills discounted”. Levels.

2006-2014 Bank of Japan, Assets and Liabilities of Domestically Licensed Banks (Banking Accounts), Financial Institutions Accounts, work sheet 70, series “Loans”. Chainlinked.

2015-2020 Bank of Japan Data Online Data: Assets and Liabilities of Domestically Licensed Banks (Banking Accounts) (End of month). Series key: BS02'FAABK_FAAB2DBEA37. Levels.

Noncore ratio

Noncore ratio = (Total Assets - Capital - Deposits) / (Total Assets - Capital)

NETHERLANDS

(Data in millions NLG)

Macro Data

Population

1870 – 2008 from Angus Maddison Database (2008), ibid. Table 1 “Population levels, 1AD–2030AD” (accessible online at http://www.ggdc.net/maddison/Historical_Statistics/horizontal–file_02–2010.xls).

2009 – 2020 growth rates from International Monetary Fund , World Economic Outlook. Subject “People – population” (base year: 2008) (accessible at www.imf.org).

GDP (converted to millions NLG)

1870 – 1913 from van Zanden et al., National Accounts of the Netherlands, 1880 – 1913, Table “Final estimates GDP and GNP (total output, income and expenditure in current and constant prices), 1800-1913,” (accessible online at http://nationalaccounts.niwi.knaw.nl/start.htm). Level.

1921 – 1939 from "J.P. Smits, P.J. Woltjer and D. Ma (2009), 'A Dataset on Comparative Historical National Accounts, ca. 1870-1950: A Time-Series Perspective', Groningen Growth and Development Centre Research Memorandum GD-107, Groningen: University of Groningen," (accessible online at http://www.rug.nl/research/ggdc/data/historical-national-accounts). Level.

1945 – 1968 from Mitchell, B. (2013). International Historical Statistics. National Accounts. Series: GDP. Level.

1969 – 2020 International Monetary Fund (2021), International Financial Statistics. Data Report “Economic indicators”, Series “Gross domestic product (in millions) – GDP nominal” (accessible online at https://data.imf.org/).

Real GDP per capita (PPP, 1990 Int$, Maddison)

1870 – 2010 from The Maddison-Project, http://www.ggdc.net/maddison/maddison-project/home.htm, 2013 version. http://www.ggdc.net/maddison/maddison-project/home.htm . Level.

2011 – 2020 from International Monetary Fund. World Economic Outlook. Series: Gross domestic product based on purchasing-power-parity (PPP) per capita GDP. Chain-linked.

Real GDP per capita (index, 2005=100)

1870 – 2004 from R. Barro & and J. Ursúa (2010), Macroeconomic Data Set, Harvard University, Cambridge MA (accessible online at http://scholar.harvard.edu/barro/publications/barro–ursua–macroeconomic–data).

2005 – 2020 growth rate calculated from World Bank (2018), Category “Economic policy and external debt,” Series “GDP per capita (constant 2010 US$) (accessible online at http://data.worldbank.org/indicator/NY.GDP.PCAP.KD).

Real consumption per capita (index, 2006=100)

1870 – 2009 from Robert C. Barro and José F. Ursúa (2010), Barro–Ursúa Macroeconomic Data. For respective sources see original data set: http://rbarro.com/data–sets/..

2010 – 2020 from World Bank household final consumption expenditure per capita (constant 2010 US$). Chain linked.

Investment-to-GDP ratio

1870 – 1913 from van Zanden et al. National Accounts of the Netherlands. Excel file: Gross fixed capital formation. Series: current prices - total GFCF. Divided by GDP from JST dataset. Online: http://nationalaccounts.niwi.knaw.nl/start.htm

1921 – 1939 from Bakker et al (1990). "The Dutch Economy 1921-1939: Revised macroeconomic data for the interwar period". Series: Gross fixed capital formation - Government + Enterprise. Divided by GDP from JST dataset.

1948 – 1959 from Mitchell, B. (2013). International Historical Statistics. Series: Capital formation. Divided by GDP from JST dataset.

1960 - 2020 from International Monetary Fund (2019), International Financial Statistics. Data Report “National Accounts”, Series Gross Capital Formation, Gross Fixed Capital Formation, Corporations, Households, and Non-profit Institutions Serving Households Nominal, Seasonally adjusted. Until 1989: National Currency. From 1990 onwards the Euro series has been transformed into NLG (accessible online at https://data.imf.org/).

Consumer prices (index, 1990=100)

1870 – 1996 from A. Taylor (2002), A Century of Purchasing–Power Parity, Review of Economics and Statistics, vol 84(1), pp. 139–150.

1997 – 2020 from International Monetary Fund World Economic Outlook (April 2019). Series “Inflation, average consumer prices” (accessible online at https://www.imf.org/external/pubs/ft/weo/2019/01/weodata/index.aspx). Chainlinked.

Narrow Money (converted to millions NLG)

1870 – 1949 Mitchell, B. (2013). International Historical Statistics. Sum of banknote circulation + deposits in commercial banks. 1914-1917 deposit data interpolated with geometrical average growth rate. Gap: 1942-1944.

1950 – 1981 Mitchell, B. (2013). International Historical Statistics. Series: M1.

1982 – 2017 from De Nederlandsche Bank. Table 5.4 Contribution of the Netherlands to euro area monetary aggregates (stocks). Sum of Overnight + Currency in circulation (=difference of M3 incl. and excl. currency in circulation) Online: http://www.dnb.nl/en/binaries/t5.4ek_tcm47-330724.xls?2015120611

2016– 2020 from De Nederlandsche Bank. Statistics. Data Search. Monetary aggregates. Dutch contribution to monetary aggregates in the euro area (Month). Dutch contribution to monetary aggregates in euro are (quarter). Sum of Overnight + Currency in circulation (=difference of M3 incl. and excl. currency in circulation). Q4 stock values using the older definition.

Broad Money (converted to millions NLG)

1879 – 1955 Mitchell, B. (2013). International Historical Statistics. Sum of banknote circulation + deposits in commercial banks + deposits in savings banks (general savings banks + post offices). 1914-1917 deposit data interpolated with geometrical average growth rate. 1922-1924 deposits in general savings banks interpolated with geometrical average growth rate. Gap: 1942-1944.

1956 – 1997 from International Monetary Fund (2015), International Financial Statistics, (accessible online at http://elibrary–data.imf.org/). Series: M2, national currency

1998 – 2017 from De Nederlandsche Bank. Table 5.4 Contribution of the Netherlands to euro area monetary aggregates (stocks). Sum of Overnight deposits + Deposits with agreed maturity up to 2 years + Deposits redeemable at a period of notice up to 3 months + Currency in circulation (=difference of M3 incl. and excl. currency in circulation) Online: http://www.dnb.nl/en/binaries/t5.4ek_tcm47-330724.xls?2015120611

2016– 2020 from De Nederlandsche Bank. Statistics. Data Search. Monetary aggregates. Dutch contribution to monetary aggregates in the euro area (Month). Dutch contribution to monetary aggregates in euro are (quarter). Sum of Overnight deposits + Deposits with agreed maturity up to 2 years + Deposits redeemable at a period of notice up to 3 months + Currency in circulation (=difference of M3 incl. and excl. currency in circulation). Q4 stock values using the older definition.

Short–term interest rate (nominal, percent per year)

1870 – 1872 from Neal, Larry D., and Marc D. Weidenmier. "Crises in the global economy from tulips to today." Globalization in historical perspective. University Of Chicago Press, 2003. 473-514. Open Market Rate, Monthly, End of Year Value. (accessible online at http://ebutts05.tripod.com/nealweidenmiergsd/)

1873 – 1879 from Homer, S. and R. Sylla (2005). A History of Interest Rates, Fourth Edition. Wiley Finance.

1880 – 1912 from Bordo, Michael D., Barry Eichengreen, Daniela Klingebiel, and Maria Soledad Martinez–Peria. 2001. “Is the Crisis Problem Growing More Severe?” Economic policy: A European Forum 32: 51–75.

1913 – 1914 from Neal, Larry D., and Marc D. Weidenmier. "Crises in the global economy from tulips to today." Globalization in historical perspective. University Of Chicago Press, 2003. 473-514. Open Market Rate, Monthly, End of Year Value. (accessible online at http://ebutts05.tripod.com/nealweidenmiergsd/)

1915 – 1957 from Bordo, Michael D., Barry Eichengreen, Daniela Klingebiel, and Maria Soledad Martinez–Peria. 2001. “Is the Crisis Problem Growing More Severe?” Economic policy: A European Forum 32: 51–75.

1958-1964 from International Financial Statistics (IFS). Data reports “Economic indicators (IFS)”, Section “Interest rates”, Series “Central Bank rate” (online available at http://elibrary-data.imf.org).

1965-1985 from International Financial Statistics (IFS). Data reports “Economic indicators (IFS)”, Section “Interest rates”, Series “Money Market rate” (online available at http://elibrary-data.imf.org).

1986-2020 from OECD Statistics, Interest rates – Short-term interest rate. (accessible online at http://stats.oecd.org/)

Long–term interest rate (nominal, percent per year)

1870 – 1879 from Schmelzing, P. (2020). Eight centuries of global real interest rates, R-G, and the 'suprasecular' decline, 1311-2018. Bank of England Staff Working Paper No. 845.

1880 – 1913 from Flandreau and Zumer, 2004, The Making of Global Finance, Paris: OECD Development Centre.

1914 – 1947 from Schmelzing, P. (2020). Eight centuries of global real interest rates, R-G, and the 'suprasecular' decline, 1311-2018. Bank of England Staff Working Paper No. 845.

1948 – 2016 International Monetary Fund (2021), International Financial Statistics (IFS). Data reports "Economic indicators (IFS)", Section "Interest rates", Series "Monetary and Financial Accounts, Interest Rates, Securities Markets, Government Debt Securities, Government Bonds, Percent per Annum".

2017 – 2020: OECD (2020). OECD iLibrary. Long-term interest rates doi: 10.1787/662d712c-en

Current Account (converted to millions NLG)

1870 – 1913 from J. Smits, E. Horlings & J. van Zanden (2000), Dutch GNP and its components 1800–1913, GGDC Research Memorandum No.5, University of Groningen, Groningen. Series: Sum of net merchandise exports + net service exports + net primary incomes. Level.

1921- 1939 from Gert P. Bakker and Theo A. Huitker and Cornelis A. van Bochive (1990), The Dutch Economy 1921-39: Revise Macroecnomic Data for the Interwar, Review of Income and Wealth. Series 36, Number2, June 1990

1948 – 1966 from B. Mitchell (2007), International Historical Statistics: Europe 1750 – 2005, Pallgrave MacMillen, London.

1967 – 2007 International Monetary Fund (2010), International Financial Statistics. Table "Balance of payments", Series "Balances – current account balance" (accessible online http://elibrary–data.imf.org/).

2008 – 2020 International Monetary Fund, World Economic Outlook. % of GDP * nominal GDP = Current Account

Imports & Exports (converted to millions NLG)

1870 – 1947 from J. Smits, E. Horlings & J. van Zanden (2000), Dutch GNP and its components 1800–1913, GGDC Research Memorandum No.5, University of Groningen, Groningen; and B. Mitchell (2007), International Historical Statistics: Europe 1750 – 2005, Pallgrave MacMillen, London. Note: Gaps in 1944 – 1945; Notes: Until 1913 the data are taken from Table H.1 Imports, Exports and Net Merchandise Exports, 1802-1913 in Smits et al. (2000); between 1913 and 1947 growth rates in Mitchell (2007) are chain-linked and linearly adjusted to match Smits et al. (2000) and IMF (2019; see below) benchmarks for 1913 and 1948, respectively. Data is missing for years 1944 and 1945.

1948 – 2020 from International Monetary Fund, International Financial Statistics: archive, M10 2021, External Trade, Goods, Value of Exports, Free on Board (FOB), Domestic Currency; External trade, Imports, Goods, Value, Cost, Insurance freight, Domestic Currency.

Government Revenues (converted to millions NLG)

1870 – 1969 from Centraal Bureau voor de Statistiek (2001), Tweehonderd Jaar Statistiek in Tijdreeksen 1800 – 1999, Centraal Bureau voor de Statistiek, Amsterdam (accessible online at www.cbs.nl/NR/rdonlyres/7934A2DE–B87C–4CDF–8BC7–D34F02225620/0/200jaarstattijdreeksen.pdf).

1970 – 2020 from OECD (2019), OECD.Stat. Database "OECD national accounts statistics," Dataset "General government accounts," Table 12 "Government deficit/surplus, revenue, expenditure, and main aggregates," Sector GS1311 "Central government," Measure "National currency, current prices," Series GTR "Total general government revenue" (accessible online at www.oecd–ilibrary.org/statistics).

Government Expenditure (converted to millions NLG)

1870 – 1969 from Centraal Bureau voor de Statistiek (2001), Tweehonderd Jaar Statistiek in Tijdreeksen 1800 – 1999, Centraal Bureau voor de Statistiek, Amsterdam (accessible online at www.cbs.nl/NR/rdonlyres/7934A2DE–B87C–4CDF–8BC7–D34F02225620/0/200jaarstattijdreeksen.pdf).

1970 – 2020 from OECD (2019), OECD.Stat. Database "OECD national accounts statistics," Dataset "General government accounts," Table 12 "Government deficit/surplus, revenue, expenditure, and main aggregates," Sector GS1311 "Central government," Measure "National currency, current prices," Series GTE "Total general government expenditure" (accessible online at http://www.oecd–ilibrary.org/statistics).

Public debt-to-GDP ratio

1870 – 1974 from Mauro, Paolo, Rafael Romeu, Ariel Binder, and Asad Zaman, 2013, "A Modern History of Fiscal Prudence and Profligacy," IMF Working Paper 13/5. The paper and the underlying data are accessible at http://www.imf.org/external/pubs/cat/longres.aspx?sk=40222.0. Note: gap from 1940 – 1945.

1975 – 2020 from European Commission, Economic and Financial Affairs, AMECO database, Chapter 18 Gross Public Debt.18.2 – Based on ESA 2010 and former definitions. Gross Public Debt (linked series) (UDGGL). Percentage of GDP at market prices (excessive deficit procedure) (data accessible online at http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm).

USD exchange rate (local currency/USD)

1870 – 1912 from Denzel. M.A. (2010). Handbook of World Exchange Rates, 1590-1914. Amsterdam on London.

1913 – 1939 from Bordo, Michael D., Barry Eichengreen, Daniela Klingebiel, and Maria Soledad Martinez–Peria. 2001. "Is the Crisis Problem Growing More Severe?" Economic policy: A European Forum 32: 51–75.

1940 – 1945 from Bordo, M. D. & Jonung, L. (1996) Monetary Regimes, Inflation And Monetary Reform: An Essay in Honor of Axel Leijonhufvud.

1946 - 1955 from Reinhart, C. M. & Rogoff, K. S. (2010). From financial crash to debt crisis. (Black) market exchange rate.

1956 - 2020 from International Financial Statistics. IMF eLibrary. Nominal Exchange Rate (domestic currency / US Dollar) (end of period).

Note: We assume a Dutch guilder-euro exchange rate of 2.20371where necessary.

Peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1-2, all 3-6=0); broad peg category including crawling pegs.

2008 – 2020 extension of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1-2, all 3-6=0); broad peg category including crawling pegs.

Strict peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1, all 2-6=0); strict peg category excluding crawling pegs.

2008 – 2020 extension of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1, all 2-6=0); strict peg category excluding crawling pegs.

Exogenous monetary policy shocks

Exogenous variation in the short-term interest rate from Òscar Jordà, Moritz Schularick, Alan M. Taylor and Felix Ward, 2019. “Global financial cycles and risk premiums”. IMF Economic Review, Volume 67 Number 1, pp. 109-150, which uses the identification strategy using local projection with instrumental variables laid out in Òscar Jordà, Moritz Schularick and Alan M. Taylor, 2020. “The effects of quasi-random monetary experiments”. Journal of Monetary Economics 112: 22-40.

House prices (nominal index, 1990=100)

1870 – 2012 from Knoll et al. (2014). No price like home: Global house prices, 1870-2012. Year average values.

2013 - 2020 from OECD housing prices database. Nominal series. Chain-linked.

Unemployment rate (percent)

1870 -1989: from Statistics Netherlands, unemployment rate (% total labor force) – obtained by dividing the series “Werkloze beroepsbevolking” by the series “totale beroepsbevolking”. Chainlinked.

1990 – 2020: from ILOSTAT (2020), Table: “Unemployment rate by sex and age (%) - Annual” based on the EU Labour force survey accessible online at: https://ilostat.ilo.org/data/.

Wages (index, 1990=100)

1870 - 1947 Williamson (1995). "The evolution of global labor markets since 1830 background evidence and hypotheses". Real wages inflated with consumer price deflator from A. Taylor (2002), A Century of Purchasing–Power Parity, Review of Economics and Statistics, vol 84(1), pp. 139–150. Chainlinked

1948 - 1989 International Monetary Fund International Financial Statistics database (IFS). Labor Markets, Wage Rates, Index. Accessible online at http//data.imf.org/. Chainlinked.

1990 - 2020 OECD. OECD statistics. Average annual wages. Current prices. Levels. Accessible online at http//stats.oecd.org/.

Credit Data (converted to millions NLG)

Total loans to non-financial private sector

1900 – 1981 from De Nederlandsche Bank (2000), Nederlandse Financieel Instellingen in de Twintigste Eeuw: Balansreeksen en Naamlijst van Handelsbanken, Series “DNB Statistische Cahiers Nr.3.

1982 – 2020 from De Nederlandsche Bank (2020), Domestic MFI–statistics (monetary). Table T5.2 “Balance sheet of MFIs in the Netherlands (excluding De Nederlandsche Bank): not adjusted for securitisations“, Table 5.2.1 ”Loans from MFIs to the private sector, breakdown by sector, original maturity and instrument; not adjusted for securitisations”, older definition, December values (available online at http://www.statistics.dnb.nl/en/financial–institutions/banks/domestic–mfi–statistics–monetary/index.jsp).

Mortgage loans to non-financial private sector

1900 – 1984 from De Nederlandsche Bank (2000), Nederlandse Financieel Instellingen in de Twintigste Eeuw: Balansreeksen en Naamlijst van Handelsbanken, Series “DNB Statistische Cahiers Nr.3.

1985 – 1997 calculated from De Nederlandsche Bank (2000), Nederlandse Financieel Instellingen in de Twintigste Eeuw: Balansreeksen en Naamlijst van Handelsbanken, Series “DNB Statistische Cahiers Nr.3. Series “Mortgage Credit of commercial banks, savings banks and postal bank” (note: growth rates after 1986 calculated from a spread sheet shared by Tijmen Swank (DNB)).

1998 – 2009 calculated from De Nederlandsche Bank (2012), Domestic MFI–statistics (monetary). Table 5.2.1 ”Loans from MFIs to the private sector, breakdown by sector, original maturity and instrument; not adjusted for securitisations”, Series “Real Estate & Mortgage Loans

to Households" (available online at http://www.statistics.dnb.nl/en/financial–institutions/banks/domestic–mfi–statistics–monetary/index.jsp).

2010 – 2020 sum of Mortgage Loans to Households and Mortgage Loans to Business

Total Loans to Households

1990 – 2020 calculated from De Nederlandsche Bank (2012), Domestic MFI–statistics (monetary). Table 5.2.1 "Loans from MFIs to the private sector, breakdown by sector, original maturity and instrument; not adjusted for securitisations", Series "Real Estate & Mortgage Loans to Households", "Consumer credit", "All other lending to households"). (available online at www.statistics.dnb.nl/en/financial–institutions/banks/domestic–mfi–statistics–monetary/index.jsp).

Total Loans to Business

Residual of Total loans to non-financial private sector and Total Loans to Households.

Mortgage Loans to Business

2010 – 2020 Dutch National Bank. Table 5.2.4 Loans from MFIs to non-financial corporations in the Netherlands, breakdown by activity; not adjusted for securitisations; Series: Real estate activities, first definition, q4 values.

Corporate Debt

1946–1989 bank lending to business sector proxied by loans of "Handelsbanken" from De Nederlandsche Bank (2000).

1990–1994 bank loans to business and capital market debt from "Credit to the non-financial sector" database of the Bank of International Settlements (accessible online at https: //www.bis.org/statistics/totcredit.htm).

1995–2018 eurostat financial accounts data on total non-equity liabilities of the private non-financial business sector.

2019-2020 bank loans to business and capital market debt from "Credit to the non-financial sector" database of the Bank of International Settlements (accessible online at https: //www.bis.org/statistics/totcredit.htm).

Bank balance sheet ratios

(Ratios in %, underlying data in millions NLG)

Capital ratio

Capital ratio = Capital / Total Assets

Total Assets (converted to millions NLG)

1900–1981 from De Nederlandsche Bank (2000), Nederlandse Financieel Instellingen in de Twintigste Eeuw: Balansreeksen en Naamlijst van Handelsbanken, Series "DNB Statistische

Cahiers Nr.3. sum of Table 3.1 “Balaans Total” Handelsbanken, Table 4 “Balaans Total” Landbouwkredietbanken, Table 5 “Balaans Total” Algemene Spaarbanken, Table 6 “Balaans Total” Rijkspostsparbank, Table 7 “Balaans Total” Hypothekbanken. Levels.

1982–2014 from De Nederlandsche Bank (2012), Domestic MFI–statistics (monetary). Table T5.2 “Balance sheet of MFIs in the Netherlands (excluding De Nederlandsche Bank): not adjusted for securitisations. “Total Assets”, Levels.

2015-2020 from De Nederlandsche Bank, Table 5.2, Balance sheet of Dutch-based MFIs (not including DNB) (break-adjusted), series “Total Assets”. Chainlinked.

Capital Total Assets (converted to millions NLG)

1900–1981 from De Nederlandsche Bank (2000), Nederlandse Financieel Instellingen in de Twintigste Eeuw: Balansreeksen en Naamlijst van Handelsbanken, Series “DNB Statistische Cahiers Nr.3. sum of Table 3.1 “Kapitaal en reserves” Handelsbanken (adusting for accounting change in 1976 by splicing with difference in capital ratio), Table 4 “Kapitaal en reserves” Landbouwkredietbanken, Table 5 “Kapitalreserves” Algemene Spaarbanken, Table 6 “Reserves” Rijkspostsparbank, Table 7 “Kapital en reserves” Hypothekbanken. Levels.

1982–2014 from De Nederlandsche Bank, Domestic MFI–statistics (monetary). Table T5.2 “Balance sheet of MFIs in the Netherlands (excluding De Nederlandsche Bank): not adjusted for securitisations. Series “Capital and reserves”. Levels.

2015-2020 from De Nederlandsche Bank, Table 5.2, Balance sheet of Dutch-based MFIs (not including DNB) (break-adjusted), series “Capital and reserves”. Chainlinked.

Loans-to-Deposits ratio

Loans-to-Deposits ratio = Loans / Deposits

Deposits Total Assets (converted to millions NLG)

1900–1981 from De Nederlandsche Bank (2000), Nederlandse Financieel Instellingen in de Twintigste Eeuw: Balansreeksen en Naamlijst van Handelsbanken, Series “DNB Statistische Cahiers Nr.3. sum of Table 3.1 “23-25 Binnenlandse liquiditeiten”, Handelsbanken, Table 4 “Giraletegoeden (29) + Deposito's (30) and Spaargeld (33)”, Landbouwkredietbanken, Table 5 “Spaartegoeden (23), Termijin spaar rekening (24), Spaargiro tegoeden (31)” Algemene Spaarbanken, Table 6 “Spaartegoeden (24), Termijin spaarrekeningen (30)” after 1978 “Spaartotaal (25)” Rijkspostsparbank. Chainlinked as a share in total debt (difference in 1982).

1982–2014 from De Nederlandsche Bank (2012), Domestic MFI–statistics (monetary). Table T5.2 “Balance sheet of MFIs in the Netherlands (excluding De Nederlandsche Bank): not adjusted for securitisations (available online at http://www.dnb.nl/en/statistics/statistics-

dnb/financial-institutions/banks/domestic-mfi-statistics-monetary/index.jsp). “Deposits of euro area residents – total” minus “Deposits of euro area residents - MFIs”. Levels

2015-2020 from De Nederlandsche Bank , Table 5.2, Balance sheet of Dutch-based MFIs (not including DNB) (break-adjusted), series “Deposits – of which residents of the euro area - Total” less “Deposits – of which residents of the euro area - MFIs”. Chainlinked.

Loans Total Assets (converted to millions NLG)

1900–1981 from De Nederlandsche Bank (2000), Nederlandse Financieel Instellingen in de Twintigste Eeuw: Balansreeksen en Naamlijst van Handelsbanken, Series “DNB Statistische Cahiers Nr.3.

1982–2013 from De Nederlandsche Bank (2012), Domestic MFI–statistics (monetary). Table T5.2 “Balance sheet of MFIs in the Netherlands (excluding De Nederlandsche Bank): not adjusted for securitisations“, Table 5.2.1 ”Loans from MFIs to the private sector, breakdown by sector, original maturity and instrument; not adjusted for securitisations”. (available online at http://www.statistics.dnb.nl/en/financial–institutions/banks/domestic–mfi–statistics–monetary/index.jsp).

2014-2020 from De Nederlandsche Bank, Table 5.2, Balance sheet of Dutch-based MFIs (not including DNB) (break-adjusted), series “Loans – of which residents of the euro area - Total” less “Loans – of which residents of the euro area - MFIs”. Chainlinked.

Noncore ratio

Noncore ratio = (Total Assets - Capital-Deposits) / (Total Assets - Capital)

NORWAY

(Data in millions NOK)

Macro Data

Population

1870 – 2008 from Angus Maddison Database (2008), ibid. Table 1 “Population levels, 1AD–2030AD” (accessible online at http://www.ggdc.net/maddison/Historical_Statistics/horizontal–file_02–2010.xls).

2009 – 2017 growth rates from International Monetary Fund (2019) World Economic Outlook. Subject “People – population” (base year: 2008) (accessible at www.imf.org).

2018– 2020 growth rates from International Monetary Fund (Oct, 2021) World Economic Outlook. Subject “People – population” (base year: 2008) (accessible at www.imf.org).

GDP (millions NOK)

1870 – 2003 from Ola H. Grytten, The gross domestic product for Norway 1830 – 2003, chapter 6, in: Eitrheim et al. (2004), Historical Monetary Statistics for Norway, 1819 – 2003, Norges Bank. Note: gaps between 1940 - 1945

2004 – 2020 from International Monetary Fund (2021), International Financial Statistics. Data Report "National Accounts", Series "Gross Domestic Product, Nominal" (accessible online at https://data.imf.org/).

Real GDP per capita (PPP, 1990 Int$, Maddison)

1870 – 2010 from The Maddison-Project, http://www.ggdc.net/maddison/maddison-project/home.htm, 2013 version. http://www.ggdc.net/maddison/maddison-project/home.htm . Level.

2011 – 2020 from International Monetary Fund. World Economic Outlook. Series: Gross domestic product based on purchasing-power-parity (PPP) per capita GDP. Chain-linked.

Real GDP per capita (index, 2005=100)

1870 – 2004 from R. Barro & and J. Ursúa (2010), Macroeconomic Data Set, Harvard University, Cambridge MA (accessible online at http://scholar.harvard.edu/barro/publications/barro–ursua–macroeconomic–data).

2005 – 2020 growth rate calculated from World Bank (2019), Category "Economic policy and external debt," Series "GDP per capita (constant 2010 US$) (accessible online at http://data.worldbank.org/indicator/NY.GDP.PCAP.KD).

Real consumption per capita (index, 2006=100)

1870 – 2009 from Robert C. Barro and José F. Ursúa (2010), Barro–Ursúa Macroeconomic Data. For respective sources see original data set: http://rbarro.com/data–sets/..

2010 – 2020 from World Bank household final consumption expenditure per capita (constant 2010 US$). Chain linked.

Investment-to-GDP ratio

1870 – 2014 from Ola H. Grytten, "The gross domestic product for Norway 1830–2003," chapter 6, in: Eitrheim et al.. Series: Gross investments divided by GDP. Note: gaps between 1940 – 1945. Online http://www.norges-bank.no/en/Statistics/Historical-monetary-statistics/Gross-domestic-product/

2015 – 2020 from International Monetary Fund (2019), World Economic Outlook. Subject "Total Investment – Percentage of GDP" (accessible at www.imf.org).

Consumer prices (index, 1990=100)

1870 – 2020 from Norges Bank Historical Monetary Statistics. Series: CPI for Norway, annual figures from 1516. (accessible online at: https://www.norges-bank.no/en/topics/Statistics/Historical-monetary-statistics/Consumer-price-indices/)

Narrow Money (millions NOK)

1870 – 2003 from Jan T. Klovland, Monetary Aggregates in Norway 1819—2003, chapter 5, in: Eitrheim et al.

2004 – 2016 average of monthly series for M0; statistics, Historical statistics, money, credit and banking aggregates, Table_a2, M0 monetary base excluding Treasury deposits (available online at www.norges-bank.no).

2017 – 2020 Statistics Norway, Economy, banking and financial markets, financial indicators, monetary aggregates, Base money MO, average of monthly series.

Broad Money (millions NOK)

1870 – 2003 from Jan T. Klovland, Monetary Aggregates in Norway 1819—2003, chapter 5, in: Eitrheim et al.

2004 – 2016 average of monthly series for M2; statistics, Historical statistics, money, credit and banking aggregates, Table_a2, M2 broad money (available online at www.norges-bank.no).

2017 – 2020 Statistics Norway, Economy, banking and financial markets, financial indicators, monetary aggregates, M2, average of monthly series.

Short–term interest rate (nominal, percent per year)

1870 – 2016 from Norges Bank. Historical Monetary Statistics (2019). Short-term interest rates. Excel file: Short term interest rates in Norway from 1818. Tab: p2c7_table_7A1. Series: Marginal liquidity rate. https://www.norges-bank.no/en/topics/Statistics/Historical-monetary-statistics/Short-term-interest-rates/ Level. (Note: no data 1966).

2017- 2020 from Norges Bank. Nowa (Norwegian Overnight Weighted Average) annual average. Chain-linked.

Long–term interest rate (nominal, percent per year)

1870 – 1929 from Norges Bank. Historical Monetary Statistics for Norway. Interest rates, Bond yields, Yields on most actively traded maturities of long-term government bonds. Available at: http://www.norges-bank.no/en/statistics/historical-monetary-statistics/

1930- 1947 from Homer, S. and R. Sylla (2005). A History of Interest Rates, Fourth Edition. Wiley Finance.

1948 – 2020 from International Monetary Fund, International Financial Statistics (IFS). Data reports “Economic indicators (IFS)”, Section “Interest rates”, Series “Government Bonds, percent per Anum”.

Current Account (millions NOK)

1870 – 1939 from M. Jones & M. Obstfeld (1997), Saving, Investment, and Gold: A Reassessment of Historical Current Account Data, NBER Working Paper No. 6103, MIT Press, Cambridge MA (accessible online at http://www.nber.org/databases/jones–obstfeld/).

1946 – 2010 from B. Mitchell (2013), International Historical Statistics. Series: Overall current balance.

2011 – 2020 International Monetary Fund, World Economic Outlook. % of GDP * nominal GDP = Current Account

Imports & Exports (millions NOK)

1870 – 1947 from B. Mitchell (2007), from B. Mitchell (2007), International Historical Statistics: Europe 1750 – 2005, Pallgrave MacMillen, London.

1948 – 2020 from International Monetary Fund, International Financial Statistics: archive, M10 2021, External Trade, Goods, Value of Exports, Free on Board (FOB), Domestic Currency; External trade, Imports, Goods, Value, Cost, Insurance freight, Domestic Currency.

Government Revenues (millions NOK)

1870 –1943 from Statistics Norway (various), Statistical Yearbook of Norway (various issues) (accessible online at http://www.ssb.no/a/en/histstat/main.html).

1949 – 1974 from Statistics Norway (1978), Historical Statistics 1978. Table 243 “Revenue and expenditure of the central government mill kroner,” Series “Revenue –Total” (accessible online at http://www.ssb.no/a/histstat/hs1978/hs1978.pdf).

1975 – 1994 from Statistics Norway (1994), Historical Statistics 1994 (accessible online at http://www.ssb.no/a/en/histstat/tables.html).

1995 – 2020 from OECD (2021), OECD.Stat. Database “OECD national accounts statistics,” Dataset “General government accounts,” Table 12 “Government deficit/surplus, revenue, expenditure, and main aggregates,” Sector GS1311 “Central government”, Measure “National currency, current prices,” Series GTR “Total general government revenue” (accessible online at http://www.oecd–ilibrary.org/statistics).

Government Expenditure (millions NOK)

1870 – 1913 from Statistics Norway (various), Statistical Yearbooks (various issues) (accessible online at http://www.ssb.no/a/en/histstat/main.html).

1914 – 1945 from Mitchell, B. (2013). International Historical Statistics. Government expenditure.

1946 – 1976 from Statistics Norway (1978), Historical Statistics 1978. Table 243 “Revenue and expenditure of the central government mill kroner”, Series “Expenditure –Total” (accessible online at http://www.ssb.no/a/histstat/hs1978/hs1978.pdf)

1977 – 1992 from Statistics Norway (1994), Historical Statistics 1994. Table 23.11 Series: Current expenditure total (accessible online at accessible online at https://www.ssb.no/a/histstat/tabeller/23-23-11.txt). Level.

1993- 1994 from Statistics Norway. Public Sector - general government revenue and expenditure. Series: Current expenditure. https://www.ssb.no/statistikkbanken/SelectVarVal/Define.asp?MainTable=OffForvIU3&KortNavnWeb=offinnut&PLanguage=1&checked=true

1995 – 2020 from OECD (2021), OECD.Stat. Database “OECD national accounts statistics,” Dataset “General government accounts,” Table 12 “Government deficit/surplus, revenue, expenditure, and main aggregates,” Sector GS1311 “Central government,” Measure “National

currency, current prices," Series GTE "Total general government expenditure" (accessible online at http://www.oecd–ilibrary.org/statistics).

Public debt-to-GDP ratio

Note: Data for 1870–1979 is for central government debt; data thereafter is for general government debt. (Note: no data for 1940-1946).

1880 – 1885 from Statistics Norway, Statistical Yearbook, various issues.

1886 – 1913 from Bordo, M. D. & Jonung, L. (1996) Monetary Regimes, Inflation And Monetary Reform: An Essay in Honor of Axel Leijonhufvud.

1914 – 1931 from United Nations (1948). Public Debt, 1914–1946. Department of Economic Affairs, Lake Success, NY.

1932 – 1975 from Statistics Norway (1978): "Historisk Statistikk". Table 242. p. 453. Column: Total, divided by GDP from JST dataset (accessible online at http://www.ssb.no/a/histstat/hs1978/hs1978.pdf). Level.

1976 – 1978 from Statistics Norway (1994). "Historisk Statistikk". Table: Offentlig forvaltning Tabell 23.12. Statsforvaltningen. Fordringer og gjeld pr 31. desember, etter finansobjekt. Mill. kr / Central government. Assets and liabilities as of 31 December, by financial instrument. Million kroner Series: Gjeld i alt. divided by GDP from JST dataset. http://www.ssb.no/a/histstat/tabeller/23-23-12.txt

1979 – 1999 from Statistics Norway, Historical Tables, General Government, Table 1: General government. Financial balance sheet per 31 December at nominal value, by financial instrument and debtor/creditor sector, including reconciliation items. 1986-1992. Million kroner. Series: General government gross debt % of GDP. (data accessible online at http://www.ssb.no/a/english/kortnavn/offogjeld_en/histtab.html).

2000 – 2013 from Eurostat – Quarterly General Government Consolidated Gross Debt, end of year (data accessible online at http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=gov_q_ggdebt&lang=en).

2014 – 2020 from International Monetary Fund, World Economic Outlook. Subject "General Government Gross Debt– Percentage of GDP" (accessible at www.imf.org).

USD exchange rate (local currency/USD)

1870 – 1939 from Norges Bank. Historical Monetary Statistics. Table: Historical Exchange Rates. December values.

1940 – 1945 from Bordo, M. D. & Jonung, L. (1996) Monetary Regimes, Inflation And Monetary Reform: An Essay in Honor of Axel Leijonhufvud.

1946 - 1957 from Reinhart, C. M. & Rogoff, K. S. (2010). From financial crash to debt crisis. (Black) market exchange rate.

1958 - 2020 from International Financial Statistics. IMF eLibrary. Nominal Exchange Rate " Exchange Rates, National Currency Per U.S. Dollar, End of Period, Rate".

Peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1-2, all 3-6=0); broad peg category including crawling pegs.

2008 – 2020 extension of of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1-2, all 3-6=0); broad peg category including crawling pegs.

Strict peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1, all 2-6=0); strict peg category excluding crawling pegs.

2008 – 2020 extension of of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1, all 2-6=0); strict peg category excluding crawling pegs.

Exogenous monetary policy shocks

Exogenous variation in the short-term interest rate from Òscar Jordà, Moritz Schularick, Alan M. Taylor and Felix Ward, 2019. “Global financial cycles and risk premiums”. IMF Economic Review, Volume 67 Number 1, pp. 109-150, which uses the identification strategy using local projection with instrumental variables laid out in Òscar Jordà, Moritz Schularick and Alan M. Taylor, 2020. “The effects of quasi-random monetary experiments”. Journal of Monetary Economics 112: 22-40.

House prices (nominal index, 1990=100)

1870 – 2012 from Knoll et al. (2014). No price like home: Global house prices, 1870-2012. Year average values.

2013 – 2020 from OECD housing prices database. Nominal series. Chain-linked.

Unemployment rate (percent)

1904 – 1919, 1940, 1941, 1946 – 1949, 1980 and 1981**:** from Mitchell, Brian (2013), International Historical Statistics: Europe, 1750 – 2010, Table: B2 Europe: Unemployment, Palgrave Macmillan, London. Chainlinked.

1920-1939**:** from Grytten, Ola Honningdal. Economic policy and labour markets in Nordic countries during the great depression of the 1930s. In: XIV International Economic History Congress, Helsinki. 2006.

1950 – 1979: from Maddison, Angus (1982), Phases of Capitalist Development. Table 6 – Unemployment as a percentage of total labour force. Oxford University Press. Chainlinked.

1982 – 2020: from ILOSTAT (2020), Table: “Unemployment rate by sex and age (%) - Annual” based on the EU Labour force survey accessible online at: https://ilostat.ilo.org/data/.

Wages (index, 1990=100)

1870 - 1989 Øyvind Eitrheim, Jan T. Klovland and Jan F. Qvigstad "HISTORICAL MONETARY STATISTICS FOR NORWAY – PART II”. Chapter 6 Norwegian wages 1726–2006 classified by industry" Total. Average national nominal wage. Chainlinked.

1990 - 2020 OECD. OECD statistics. Average annual wages. Current prices. Levels. Accessible online at http//stats.oecd.org/.

Credit Data (millions NOK)

Total loans to non-financial private sector

1870 – 2014 from Norges Bank statistics. Available at www.norges-bank.no. Statistics - HISTORICAL MONETARY STATISTICS FOR NORWAY (O. Eitrheim, O.H. Grytten and J.T. Klovland (2007), Chapter 7: Historical Monetary Statistics for Norway – some cross checks of the new data, p 385–434 in O. Eitrheim, J.T. Klovland and J.F. Qvigstad (2007), Historical Monetary statistics for Norway – Part II, Norges Bank Occasional Papers No 38, Oslo. Table “Total credit, end of year (1000NOK)”, Series “Private banks”, Series “State lending institutions”, Series “Norges bank total loans”.)

2015 – 2020 calculated from Statistics Norway, Table 06718: “Domestic loan debt, by borrower, lender and curreny (NOK million)”. Sum of of loans from banks, state lending institutions and mortgage companies to Households and Non-financial corporations. Value at the end of the year. (NOK + Foreign exchange) (available online at https://www.ssb.no/en/statbank/list/kredind/).

Mortgage loans to non-financial private sector

1870 – 1899 growth rate calculated from O. Eitrheim, O.H. Grytten and J.T. Klovland (2007), ibid. Table “Total credit, end of year (1000NOK)”, Series “Mortgage loans”.

1900 – 1974 from Central Bureau of Statistics of Norway (1948), Statistical Survey 1948, Central Bureau of Statistics Norway, Oslo. Series “Mortgages from savings banks, commercial banks and state housing banks”; and Central Bureau of Statistics of Norway (1978), Statistical Survey 1978, Central Bureau of Statistics Norway, Oslo. Series “Mortgages from savings banks, commercial banks and state housing banks”.

1975 – 1977 calculated using previous year*1.25.

1978 – 2020 sum of Mortgage Loans to Households and Total Loans to Business Secured by Real Estate.

Mortgage loans to business

1978 - 1991 chain - linked with total business lending

1992 - 1997 Norges offisielle statistikk Låne- og verdipapirmarkedet 1992-1998; Statistisk sentralbyrå, Statistics Norway, table 5 Oslo–Kongsvinger

1998 - 2008 from SSB. Real estate, renting and business activities (8). Banks. Loans (utilized) by borrower sector. Mill. NOK.
http://www.ssb.no/english/subjects/10/13/10/orbofbm_en/arkiv/tab-004-en.html 129

2009 - 2017 Statistics Norway. Tables 71 and 81; total real estate; non-financial corporations. http://www.ssb.no/orbofbm_en/ and Financial corporations, balance sheet - Banks, Mortgage Companies and State Lending Institutions - Loans Secured on Dwellings - Non-financial corporations.

2018 - 2020 Statistics Norway. Sum of: From table “Financial corporations. Loans (NOK million), by month, contents, financial corporations and debt by industry”: Real estate, renting and business activities Banks, Mortgage Companies and State Lending Institutions + table “Loans by type and sector (NOK million), by month, contents, financial corporations, type of loans and borrower sector”: Repayment loans secured on dwellings from Banks, Mortgage Companies and State Lending Institutions https://www.ssb.no/en/statbank/list/banker

Total Loans to Households

1978 – 2020 residual of Total loans to non-financial private sector and Total Loans to Business.

Loans to Households Secured by Real Estate

1978 – 2017 calculated from Statistics Norway (2015), Table “Gross domestic debt, by credit source and borrower and broken down by NOK and foreign exchange” (NOK million) Series: Loans secured on dwellings- households (1.1). Actual stock figures (NOK+Foreign exchange) (available online at http://www.ssb.no/english/).

2018 - 2020 Statistics Norway. From table “Loans by type and sector (NOK million), by month, financial corporations, type of loans, borrower sector and contents”: Repayment loans secured on dwellings Banks, Mortgage Companies and State Lending Institutions https://www.ssb.no/en/statbank/list/banker

Total Loans to Business

1978 – 1986 calculated from Statistics Norway (2000), The Loan and Securities Market 1992 – 1998, Statistics Norway, Oslo. Table 2, Series “Households etc” p28 (available online at http://www.ssb.no/emner/11/01/nos_c589/nos_c589.pdf).

1987 – 2020 calculated from Statistics Norway, Table 06718: “Domestic loan debt, by borrower, lender and curreny (NOK million)”. Sum of of loans from banks, state lending institutions and mortgage companies to Non-financial corporations. Value at the end of the year. (NOK + Foreign exchange) (available online at https://www.ssb.no/en/statbank/list/kredind/).

Corporate Debt

1872–1939 bank lending to non-financial business sector proxied by commercial bank lending from Historical Monetary Statistics for Norway.

1940–1974 lending to non-financial corporate business from Karsten Muller (¨ 2018) ”Credit Markets around the World, 1910–2014”, from SSRN (accessible online at https://ssrn.com/abstract=3259636).

1975–1994 bank loans to business and capital market debt from “Credit to the non-financial sector” database of the Bank of International Settlements (accessible online at https://www.bis.org/statistics/totcredit.htm).

1995–2013 OECD financial accounts data on total non-equity liabilities of the private non-financial business sector.

2014–2019 eurostat financial accounts data on total non-equity liabilities of the private non-financial business sector.

Bank balance sheet ratios

(Ratios in %, underlying data in millions NOK)

Capital ratio

Capital ratio = Capital / Total Assets

Total Assets (millions NOK)

1870–2015 from Norges Bank statistics. Available at www.norges-bank.no. Statistics - Historical Monetary Statistics for Norway (O. Eitrheim, O.H. Grytten and J.T. Klovland (2007), Chapter 7: Historical Monetary Statistics for Norway – some cross checks of the new data, p 385–434 in O. Eitrheim, J.T. Klovland and J.F. Qvigstad (2007), Historical Monetary statistics for Norway – Part II, Norges Bank Occasional Papers No 38, Oslo). Table “Bank Balance – Private Banks”, Series “Total Assets”.

2016-2020 Statistics Norway, Financial corporations. Balance sheet (NOK million), by financial corporations, balance sheet, contents and month. Series 25, Total Liabilities and Equity. Chainlinked.

Capital (millions NOK)

1870–2015 from Norges Bank statistics. Available at www.norges-bank.no. Statistics - Historical Monetary Statistics for Norway (O. Eitrheim, O.H. Grytten and J.T. Klovland (2007), Chapter 7: Historical Monetary Statistics for Norway – some cross checks of the new data, p 385–434 in O. Eitrheim, J.T. Klovland and J.F. Qvigstad (2007), Historical Monetary statistics for Norway – Part II, Norges Bank Occasional Papers No 38, Oslo). Table “Bank Balance – Private Banks”, Series “Equity”.

2016-2020 Statistics Norway, Financial corporations. Balance sheet (NOK million), by financial corporations, balance sheet, contents and month. Series 24, Total Equity. Chainlinked.

Loans-to-Deposits ratio

Loans-to-Deposits ratio=Loans/Deposits

Deposits (millions NOK)

1870–2015 from Norges Bank statistics. Available at www.norges-bank.no. Statistics - Historical Monetary Statistics for Norway (O. Eitrheim, O.H. Grytten and J.T. Klovland (2007), Chapter 7: Historical Monetary Statistics for Norway – some cross checks of the new data, p 385–434 in O. Eitrheim, J.T. Klovland and J.F. Qvigstad (2007), Historical Monetary statistics for Norway – Part II, Norges Bank Occasional Papers No 38, Oslo). Table “Bank Balance – Private Banks”, Series “Deposits”.

2016-2020 Statistics Norway, Financial corporations. Balance sheet (NOK million), by financial corporations, balance sheet, contents and month. Series 12, Deposits from customers. Chainlinked.

Loans (millions NOK)

1870–2015 from Norges Bank statistics. Available at www.norges-bank.no. Statistics - Historical Monetary Statistics for Norway (O. Eitrheim, O.H. Grytten and J.T. Klovland (2007), Chapter 7: Historical Monetary Statistics for Norway – some cross checks of the new data, p 385–434 in O. Eitrheim, J.T. Klovland and J.F. Qvigstad (2007), Historical Monetary statistics for Norway – Part II, Norges Bank Occasional Papers No 38, Oslo). Table “Bank Balance – Private Banks”, Series “Loans”.

2016-2020 Statistics Norway, Financial corporations. Balance sheet (NOK million), by financial corporations, balance sheet, contents and month. Series 03, Loans to and claims on customers. Chainlinked.

Noncore ratio

Noncore ratio = Other liabilities / (Total Assets - Capital)

PORTUGAL

(Data in millions PTE)

Macro Data

Population

1870 – 1849 from Angus Maddison Database (2012), ibid Table 1 “Population levels, 1AD–2030AD” (accessible online at http://www.ggdc.net/maddison/Historical_Statistics/horizontal–file_02–2010.xls).

1950 – 2011 from OECD (2012), OECD.Stat Extracts. Section “Demography and population”, Subsection “Population statistics”, Table “Population”, Subject “Population (hist5), all ages, all persons” (accessible online at http://stats.oecd.org/.)

2012 – 2017 growth rates from International Monetary Fund (Aug, 2019), World Economic Outlook. Subject “People – population” (base year: 2011) (accessible at www.imf.org).

2018 – 2020 growth rates from International Monetary Fund (Oct, 2021), World Economic Outlook. Subject “People – population” (base year: 2011) (accessible at www.imf.org).

GDP (converted millions to PTE)

1870 – 1953 from N. Valério (ed.) (2001), Portuguese Historical Statistics 2 vol., Instituto Nacional de Estatística, Lisbon. Table 6.6 C. Series “Produto interno bruto preços correntes”. Levels.

1954 – 1971 from N. Valério (ed.) (2001), Portuguese Historical Statistics 2 vol., Instituto Nacional de Estatística, Lisbon. Table 6.6 B. Series “Produto interno bruto”. Levels.

1972 – 2020 from OECD.Stat.: National Accounts – Main Aggregates – Gross domestic product (GDP). Series: Gross domestic product (annual). Levels.

Real GDP per capita (PPP, 1990 Int$, Maddison)

1870 – 2010 from The Maddison-Project, http://www.ggdc.net/maddison/maddison-project/home.htm, 2013 version. http://www.ggdc.net/maddison/maddison-project/home.htm . Level.

2011 – 2020 from International Monetary Fund. World Economic Outlook. Series: Gross domestic product based on purchasing-power-parity (PPP) per capita GDP. Chain-linked.

Real GDP per capita (index, 2005=100)

1870 – 2004 from R. Barro & and J. Ursúa (2010), Macroeconomic Data Set, Harvard University, Cambridge MA (accessible online at http://scholar.harvard.edu/barro/publications/barro–ursua–macroeconomic–data).

2005 – 2020 growth rate calculated from World Bank (2018), Category “Economic policy and external debt,” Series “GDP per capita (constant 2010 US$) (accessible online at http://data.worldbank.org/indicator/NY.GDP.PCAP.KD).

Real consumption per capita (index, 2006=100)

1910 – 2009 from Robert C. Barro and José F. Ursúa (2010), Barro–Ursúa Macroeconomic Data. For respective sources see original data set: http://rbarro.com/data–sets/.

2010 – 2020 from World Bank household final consumption expenditure per capita (constant 2010 US$). Chain linked.

Investment-to-GDP ratio

1953 – 1976 from Bank of Portugal (gross fixed capital formation plus change in inventories divided by GDP, for data series see N. Valério (ed.) (2001), Portuguese Historical Statistics 2 vol., Instituto Nacional de Estatística, Lisbon. Table 6.4 B). Divided by GDP from N. Valério (ed.)

(2001), Portuguese Historical Statistics 2 vol., Instituto Nacional de Estatística, Lisbon. Table 6.6 B. Series “Produto interno bruto”.

1977 – 2020 from International Monetary Fund, International Financial Statistics Data Report “National Accounts”, Series “Gross Fixed Capital Formation” (accessible online at https://data.imf.org/). Divided by the nominal GDP series from IMF IFS.

Consumer prices (index, 1990=100)

1870 – 1997 from N. Valério (ed.) (2001), ibid. Table 8.1.

1998 – 2020 from International Monetary Fund World Economic Outlook (April 2019). Series “Inflation, average consumer prices” (accessible online at https://www.imf.org/external/pubs/ft/weo/2019/01/weodata/index.aspx). Chainlinked.

Narrow Money (converted millions to PTE)

1870 – 1990 from N. Valério (ed.) (2001), ibid. Table 7.4B “Money Supply 1834–1993: B– Immediate means of payment (M1)”, Series “according to Mata, Valério, 1993”

1991 – 2017 from Bank of Portugal. Séries cronológicas – Principais indicatores – Agregados monetários – Portugal - Contribuição de Portugal para o agregado M1, excl. circulação monetária - Saldos (Portuguese contribution for M1, excluding currency in circulation. (Accessible online at http://www.bportugal.pt/EstatisticasWeb/%28S%284upleh451vfkrpuwywbar145%29%29/Default.aspx).

2018 – 2020 from Bank of Portugal, Data domains, Monetary and financial aggregates, Data tables, Monetary aggregates, Portugues contribution to monetary aggregates | end-of-period value and a.r.c., PRT contribution for M1-Euro area-M€ (MFI) - PRT contribution for M1-Currency circulation-Euro area-M€ (MFI).

Broad Money (converted millions to PTE)

1870 - 1912 from Nunes, A.B., Valério, N. and Martins de Sousa, R. "The long-run behaviour of the income velocity of money in Portugal: 1854-1992. Table in appendix. Column M2.

1913 – 1990 from N. Valério (ed.) (2001), ibid. Table 7.4C “Money Supply 1834–1993: C– Money in the broad sense (M2) or total means of payment (L)”, Series “According to Mata, Valério, 1993”. Level.

1991 – 2017 from Bank of Portugal. Séries cronológicas – Principais indicatores – Agregados monetários – Portugal - Contribuição de Portugal para o agregado M2, excl. circulação monetária - Saldos (Portuguese contribution for M2, excluding currency in circulation. (Accessible online at http://www.bportugal.pt/EstatisticasWeb/%28S%284upleh451vfkrpuwywbar145%29%29/Default.aspx).

2018 – 2020 from Bank of Portugal, Data domains, Monetary and financial aggregates, Data tables, Monetary aggregates, Portugues contribution to monetary aggregates | end-of-period

value and a.r.c., PRT contribution for M2-Euro area-M€ (MFI) - PRT contribution for M1-Currency circulation-Euro area-M€ (MFI).

Short–term Interest rate (nominal, percent per year)

1880 – 1884 from Olivier Accominotti, Marc Flandreau, and Riad Rezzik's "The Spread of Empire: Clio and the Measurement of Colonial Borrowing Costs".

1885 – 1914 from Neal, Larry D., and Marc D. Weidenmier. "Crises in the global economy from tulips to today." Globalization in historical perspective. University Of Chicago Press, 2003. 473-514. Open Market Rate, Monthly, End of Year Value. (accessible online at http://ebutts05.tripod.com/nealweidenmiergsd/)

1915 – 1947 from Valério, N. (2001). História Económica de Portugal. Uma Perspectiva global. Table 7.10. Series: discount rates.

1948 – 1977 from International Monetary Fund (2014), International Financial Statistics (IFS). Series "Discount Rate".

1978 – 1987 from International Monetary Fund (2014), International Financial Statistics (IFS). Series "Interbank Deposit".

1988 – 2017 from Federal Reserve Bank of St. Louis; 3-Month or 90-day Rates and Yields: Interbank Rates for Portugal, Code: IR3TIB01PTA156N.

2018 – 2020 from OECD, short term interest rate, % per anum, average of monthly values.

Long–term Interest rate (nominal, percent per year)

1870 – 1879 sum of "Yield on consols" (from Bank of England, Three centuries of macroeconomic data, Series: Yield on consols) and "Spread on consols" (from Clemens, M. A. and Williamson, J. G. (2004). Wealth bias in the first global capital market boom, 1870–1913. The Economic Journal.)

1880 – 1913 from Olivier Accominotti, Marc Flandreau, and Riad Rezzik's "The Spread of Empire: Clio and the Measurement of Colonial Borrowing Costs".

1914 – 1925 from Investor's Monthly Manual. Portuguese 3% 1st yield to maturity. Final redemption: 2001. Current yield.

1926 – 1930 from Statistisches Handbuch der Weltwirtschaft 1936. Kurs der 3% konsolid. Inneren Staatsanleihe (vH des Nominalwerts). Current yield. December values.
1931- 1947 from Homer, S. and R. Sylla (2005). A History of Interest Rates, Fourth Edition. Wiley Finance.

1948 – 1973 from International Monetary Fund (2014), International Financial Statistics (IFS). Data reports "Economic indicators (IFS)", Section "Interest rates", Series "Government Bonds".

1974 – 1975 from Bank of Portugal (2014), Bank of Portugal Statistics. Series "Yield on fixed rate treasury bonds – 10–years (monthly average)".

1976 - 2016 from International Monetary Fund (2019), International Financial Statistics (IFS). Data reports “Economic indicators (IFS)”, Section “Interest rates”, Series “Government Bonds”.

2017 – 2020: OECD (2020). OECD iLibrary. Long-term interest rates doi: 10.1787/662d712c-en

Current Account (converted millions to PTE)

1870 – 1947 from B. Mitchell (2013), International Historical Statistics: Europe 1750 – 2010, Pallgrave MacMillen, London. Calculated as Exports-Imports.

1948 – 1998 from N. Valério (ed.) (2001), Portuguese Historical Statistics 2 vol., Instituto Nacional de Estatística, Lisbon. Table 10.3 “Balança de Pagamentos 1946-1998”, Series: “transacções correntes.” Level.

1999 – 2020 International Monetary Fund (2021). International Financial Statistics. Supplementary Items, Current Account, Net (excluding exceptional financing), US Dollars. Turned into PTE with exchange rate from JST dataset (accessible online http://elibrary–data.imf.org/). Level.

Imports & Exports (converted millions to PTE)

1870 – 1949 from B. Mitchell (2013), International Historical Statistics: Europe 1750 – 2010, Pallgrave MacMillen, London. Levels.

1950 – 1953 from Bank of Portugal, Series: Quadro 10.1 - “Importacoes”/”Exportacoes”, in N. Valério (ed.) (2001), Portuguese Historical Statistics 2 vol., Instituto Nacional de Estatística, Lisbon.

1954 – 1969 from Bank of Portugal, Series “Imports and exports of goods and services”, in N. Valério (ed.) (2001), ibid. Table 6.4 B.

1970 – 2020 from OECD (2021), OECD.StatExtracts. Path “Portugal, National accounts, GDP (Expenditure Approach)”, Series B1_GE_P6 “Exports of goods and services”, Series B1_GE_P7 “Imports of goods and service” in “Current prices, domestic currency”.

Government Revenues (converted millions to PTE)

1870 – 1989 from N. Valério (ed.) (2001), ibid. Table 9.2. – tax revenue + other effective income

1990 – 2020 from Banco de Portugal, BPStats. E.2.1 - State revenue and expenditure - Current revenue, Series “Total revenue (state = central government”). December values.

Government Expenditure (converted millions to PTE)

1870 – 1989 from N. Valério (ed.) (2001), ibid. Table 9.2.

1990 – 2020 from Banco de Portugal , BPStats. Table: E.2.1 - State revenue and expenditure - Current expenditure, Series Total expediture (state = central government), December values.

Public debt-to-GDP ratio

1870 – 1972 from Valério, Nuno (Ed.), Portuguese Historical Statistics, Lisbon, Instituto Nacional de Estatística), Table 9.7, “Public Debt, 1850–1997). Divided by GDP from same source: N. Valério (ed.) (2001), Portuguese Historical Statistics 2 vol., Instituto Nacional de Estatística, Lisbon. Table 6.6 C. Series “Produto interno bruto preços correntes” and Table 6.6 B. Series “Produto interno bruto”.

1973 – 2020 from European Commission, Economic and Financial Affairs, AMECO database, Chapter 18 Gross Public Debt.18.2 – Based on ESA 2010 and former definitions. Gross Public Debt (linked series) (UDGGL). Percentage of GDP at market prices (excessive deficit procedure) (data accessible online at http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm).

USD exchange rate (local currency/USD)

1870 - 1890 from Esteves, R., J. Reis and F. Ferramosca (2009) “Market Integration in the Golden Periphery. The Lisbon/ London Exchange, 1854-1891” Explorations in Economic History 46(3): 324-345. Market exchange rate: Lisbon rate on London, 1 month's usance 1854-1876; 1 week's usance (some exceptions) 1876-1882; sight (some exceptions) 1882-1891; single quotation to 3 February 1889, average of bid and ask rates from 10 February 1889 onward

1891 – 1920 from Valério, Nuno (Coordination), 2001. Estatísticas Históricas Portuguesas. Chapter 10; Table 10.6.

1921 – 1941 from Lawrence H. Officer, "Exchange Rates Between the United States Dollar and Forty-one Currencies,", MeasuringWorth, 2015 http://www.measuringworth.com/exchangeglobal/

1942 – 1945 from Valério, Nuno (Coordination), 2001. Estatísticas Históricas Portuguesas. Chapter 10; Table 10.6.

1946 - 1955 from Reinhart, C. M. & Rogoff, K. S. (2010). From financial crash to debt crisis. (Black) market exchange rate.

1956 - 2020 from International Financial Statistics. IMF eLibrary. Nominal Exchange Rate (domestic currency / US Dollar) (end of period).

Note: We assume a Italian Portugese escudo-euro exchange rate of 200.482 where necessary.

Peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1-2, all 3-6=0); broad peg category including crawling pegs.

2008 – 2020 extension of of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1-2, all 3-6=0); broad peg category including crawling pegs.

Strict peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1, all 2-6=0); strict peg category excluding crawling pegs.

2008 – 2020 extension of of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1, all 2-6=0); strict peg category excluding crawling pegs.

Exogenous monetary policy shocks

Exogenous variation in the short-term interest rate from Òscar Jordà, Moritz Schularick, Alan M. Taylor and Felix Ward, 2019. “Global financial cycles and risk premiums”. IMF Economic Review, Volume 67 Number 1, pp. 109-150, which uses the identification strategy using local projection with instrumental variables laid out in Òscar Jordà, Moritz Schularick and Alan M. Taylor, 2020. “The effects of quasi-random monetary experiments”. Journal of Monetary Economics 112: 22-40.

House prices (nominal index, 1990=100)

1988 – 2020 from OECD housing prices database. Nominal series. Rebased 1990=100.

Unemployment rate (percent)

1953 - 1974: from Banco de Portugal, “Séries longas para a economia portuguesa - pós II Guerra Mundial”, “Parte IV – População, Emprego e Desemprego” (accessible online at: https://www.bportugal.pt/sites/default/files/anexos/series/sl-populacao-metodologias.pdf). Chainlinked.

1975 - 1985: from ILOSTAT (2020), Table: “Unemployment rate by sex and age” based on the Labor Force Survey (1974-1985). Chainlinked.

1986 – 2020: from ILOSTAT (2021), Table: “Unemployment rate by sex and age (%) - Annual” based on the EU Labour force survey accessible online at: https://ilostat.ilo.org/data/.

Wages (index, 1990=100)

1870 - 1913 Nuno Valério (2001). Estatísticas Históricas Portuguesas. Quadro 8.2 Salários. Agricultural nominal wage (average of 15 different activities) (Martins). Assumed no wage growth for the year of 1913. Chainlinked.

1914 - 1929 Nuno Valério (2001). Estatísticas Históricas Portuguesas. Quadro 8.2 Salários. Nominal Wage (Branco). Chainlinked.

1930 - 1937 International Historical Statistics. Europe’s Labour Force – Money/Wages in Agriculture. Daily wages. Chainlinked.

1938 - 1952 Nuno Valério (2001). Estatísticas Históricas Portuguesas. Quadro 8.2 Salários. Average of 25 different job wages in Lisbon (Pimenta). Chainlinked.

1953 - 1960 International Historical Statistics. Europe's Labour Force – Money/Wages in Industry. Daily wages. Chainlinked.

1961 - 1985 International Monetary Fund International Financial Statistics database (IFS). Labor Markets, Wage Rates, Index. Accessible online at http//data.imf.org/. Chainlinked.

1986 - 1991 International Monetary Fund International Financial Statistics database (IFS). Labor Markets, Manufacturing Wage Rates, Index. Accessible online at http//data.imf.org/. Chainlinked.

1992 - 1995 PORDATA. Salários – Emprego – Remuneração e ganho. Monthly average wage. Accessible online at www.pordata.pt. Chainlinked.

1996 - 2020 OECD. OECD statistics. Average annual wages. Current prices. Levels. Accessible online at http//stats.oecd.org/.

Credit Data (converted millions to PTE)

Total loans to non-financial private sector

1870 – 1892 from N. Valério (2001), ibid.; Table 7.7 A "Loans banks, bankers, banking houses".

1893 – 1903 from Statistics Portugal (various), Statistical Yearbook of Portugal (various issues). Series "Secured loans".

1920 growth rate calculated from N. Valério (2001), ibid. Series "Banks, bankers, banking houses: Current accounts and secured loans.

1921 – 1929 calculated from Statistics Portugal (various), Statistical Yearbook of Portugal (various issues), Table "Situação Bancaria, bancos, empréstimos e contas correntes com caução", Series "Vias de Comunicação, Circulação e Crédito" plus series "Total Loans Secured by Real Estate."

1930 – 1946 sum of Statistics Portugal (various), Situação Bancaria/Estatísticas Financeiras (various issues), Table "Situação bancária em 31 de Dezembro de [respective year] (Bancos e restantes entidades que exercem o comércio bancário)", Series "Carteira comercial (commercial portfolio)" + Series "Contas correntes e empréstimos caucionados (Current Accounts and Secured Loans plus series "Total Loans Secured by Real Estate."

1947 – 78 from Bank of Portugal (2009), ibid. Section "Monetary and financial statistics", Table "Monetary survey", Series "Loans to non–financial corporations and households" (accessible online see above).

1979 – 1982 from Bank of Portugal, BPStat. Section "Monetary and financial statistics", Chapter "Monetary survey", Series "Domestic credit to NFC" + Series "Domestic credit to private individuals" (accessible online see above).

1983 – 2020 from Bank of Portugal BPStat. Section "Monetary and financial statistics", Monetary and financial institutions' balance sheet", Series "Loans-NFC-PRT-M€ (OMFI)" + "Loans-Households and NPISH-PRT-M€ (OMFI)", (accessible online: https://bpstat.bportugal.pt/dados/dominios/19/series).

Mortgage loans to non-financial private sector

1920 – 1929 from Statistics Portugal (various), Statistical Yearbook of Portugal (various issues). Table “Situação Bancaria, caixas e companhias de crédito, empréstimos e contas correntes com caução”, Series “Vias de Comunicação, Circulação e Crédito”

1930 – 1938 from Statistics Portugal (various), Situação Bancaria (various issues). Table “Situação bancária em 31 de Dezembro de [respective year] (Bancos e restantes entidades que exercem o comércio bancário)” or Table “Bancos, caixas económicas, companhias de crédito, sociedades por cotas e em nome colectivo e firmas individuais (continente e ilhas). Saldos reunidos em 31 de Dezembro de [respective year] e [respective year], Hipotecários”.

1939 – 1961 from Portugal (various), Situação Bancaria / Estatísticas Financeiras (various issues). Table “Situação bancária em 31 de Dezembro de [respective year] (Bancos e restantes entidades que exercem o comércio bancário)” or Table “Bancos, caixas económicas, companhias de crédito, sociedades por cotas e em nome colectivo e firmas individuais (continente e ilhas). Saldos reunidos em 31 de Dezembro de [respective year] e [respective year], Hipotecários”.

1962 – 1982 growth rate calculated from N. Valério (2001.), ibid. Series “Mortgages”.

1983 – 2017 from Bank of Portugal, BPStat. Section “Monetary and financial statistics”, Chapter “Details of the assets of other monetary and financial institutions vis–à–vis residents”, Table “Loans of other monetary financial institutions to private individuals”, Series “Housing” (accessible online see above).

2018 – 2020 from Bank of Portugal, BPStat. Data Domain “Monetary and financial”, Data sub-domain “Monetary financial institutions' balance sheet”, Statistical Series “Loans-Households and NPISH-PRT-House purchase-M€ (OMFI)”, December values (accessible online see above).

Total Loans to Households

1979 – 2020 Bank of Portugal BPStat. Section “Monetary and financial statistics”, Monetary and financial institutions’ balance sheet”, Series “Loans-Households and NPISH-PRT-M€ (OMFI)”, (accessible online: https://bpstat.bportugal.pt/dados/dominios/19/series).

Total Loans to Business

1979 – 2020 from Bank of Portugal BPStat. Section “Monetary and financial statistics”, Monetary and financial institutions’ balance sheet”, Series “Loans-NFC-PRT-M€ (OMFI)”, (accessible online: https://bpstat.bportugal.pt/dados/dominios/19/series).

Corporate Debt

1947–1978 lending to non-financial corporate business from Karsten Muller (¨ 2018) ”Credit Markets around the World, 1910–2014”, from SSRN (accessible online at https://ssrn.com/ abstract=3259636).

1979–1994 bank loans to business and capital market debt from “Credit to the non-financial sector” database of the Bank of International Settlements (accessible online at https: //www.bis.org/statistics/totcredit.htm).

1995–2013 OECD financial accounts data on total non-equity liabilities of the private non-financial business sector.

2014–2019 eurostat financial accounts data on total non-equity liabilities of the private non-financial business sector.

Bank balance sheet ratios

(Ratios in %, underlying data in millions PTE)

Capital ratio

Capital ratio = Capital / Total Assets

Total Assets (converted millions to PTE)

1920–1930 Jaime Reis, Chapter 7 – Money and Credit in “Nuno Valério, Portuguese Historical Statistics”. Table 7.7 — Banks, bankers and banking houses, 1858-1892, 1919-1990 (1929/1930 interpolated). Total Assets and Liabilities, Mainland. Chainlinked.

1931–1960 Estatisticas Monetaria Financeiras (various issues). Series “Total” less series “Outras verbas do passivo”, Bancos e Casas Bancario excluding Bank of Portugal. Chainlinked.

1961 Jaime Reis, Chapter 7 – Money and Credit in “Nuno Valério, Portuguese Historical Statistics”. Table 7.7 — Banks, bankers and banking houses, 1858-1892, 1919-1990. Total Assets and Liabilities, Mainland. Chainlinked.

1962-1977 Estatisticas Monetaria Financeiras (various issues). Series “Total” less series “Contas de Ordem”. “Bancos e casas bancario” excluding Banco Formento and Bank of Portugal. Chainlinked.

1978-1996 Estatisticas Monetaria Financeiras. Commercial banks. Series “Total Assets”, break-adjusted in 1982. Chainlinked.

1997-2020 ECB Statistics, Series “Total Assets/Liabilities”
BSI.M.PT.N.A.T00.A.1.Z5.0000.Z01.E.

Capital (converted millions to PTE)

1920–1930 Jaime Reis, Chapter 7 – Money and Credit in “Nuno Valério, Portuguese Historical Statistics”. Table 7.7 — Banks, bankers and banking houses, 1858-1892, 1919-1990 (1929/1930 interpolated). Paid-up capital, Mainland. Chainlinked.

1931–1961 Estatisticas Monetaria Financeiras (various issues). Series “Capital” + “Fundo de reserva”. Bancos e casas bancario excluding Bank of Portugal. Chainlinked capital ratio (including Banco Formento in 1962 to adjust for break in 1961/1962).

1962-1977 Estatisticas Monetaria Financeiras (various issues). Series “Capital e Reservas - Total” divided by Assets. “Bancos e casas bancario” excluding Banco Formento and Bank of Portugal. Chainlinked capital ratio.

1978-1989 Estatisticas Monetaria Financeiras (various issues). Bancos comerciais. Table Balanco em 31 de Dezembro. Series “Capital”+ series “Reservas” divided by “Activo - Actif” (break-adjusted in 1982). Chainlinked capital ratio.

1990-1996 Estatisticas Monetaria Financeiras (various issues). Bancos comerciais. Table Balanco em 31 de Dezembro. Series “Capital subscrito”+ series “Reservas” divided by “Activo - Actif”. Chainlinked.

1997-2006 ECB Statistical Data Warehouse, Capital ratio computed as "Capital and reserves, World not allocated (geographically), Unspecified counterpart sector" BSI.M.PT.N.A.T00.A.1.Z5.0000.Z01.E divided by "Total Assets/Liabilities, Total, World not allocated (geographically), Unspecified counterpart sector" BSI.M.PT.N.A.L60.X.1.Z5.0000.Z01.E.

2007-2020 ECB Consolidated Banking Data, series “Full sample (All banking groups / stand-alone banks irrespective of their accounting / supervisory reporting framework), Tangible equity [% of tangible total assets] (I3309), Percent (PC)",

Loans-to-Deposits ratio

Loans-to-Deposits ratio = Loans / Deposits

Deposits (converted millions to PTE)

1920 – 1930 Jaime Reis, Chapter 7 – Money and Credit in “Nuno Valério, Portuguese Historical Statistics”. Table 7.7 — Banks, bankers and banking houses, 1858-1892, 1919-1990 (1929/1930 interpolated). Deposits, Mainland. Chainlinked.

1931 – 1950 Estatisticas Monetaria Financeiras (1950). Series “Depositos a prazo” + “Depositos a terme”. “Bancos e casas bancario” excluding “Bank of Portugal”. Chainlinked.

1951 – 1961 Estatisticas Monetaria Financeiras (various). Series “Depositos a prazo” + “Depositos a ordem”. “Bancos e casas bancario” excluding “Bank of Portugal”. Chainlinked.

1962-1977 Estatisticas Monetaria Financeiras (various issues). Series “Depositos a prazo – moeda nacional” + “Depositos a prazo – moeda estrangeira” + “Depositos a ordem – moeda nacional” + “Depositos a ordem – moeda estrangeira”. “Bancos e casas bancario” excluding “Banco Formento” and “Bank of Portugal”. Chainlinked.

1978-1989 Estatisticas Monetaria Financeiras (various issues). Bancos comerciais. Table Balanco em 31 de Dezembro. Series “Depositos-Moeda Nacional”. Chainlinked.

1990-1992 Estatisticas Monetaria Financeiras (various issues). Bancos comerciais. Table Balanco em 31 de Dezembro. Series “Debitos para com clientes”. Chainlinked.

1993-1996 Estatisticas Monetaria Financeiras (various issues). Bancos comerciais – nacionais + etrangeiros. Table Balanco em 31 de Dezembro. Series “Debitos para com clientes”. Chainlinked.

1997-2020 ECB Statistical Data Warehouse, Deposit liabilities, Total, Euro area (changing composition), Non-MFIs excluding central government" BSI.M.PT.N.A.L20.A.1.U2.2300.Z01.E

Loans (converted millions to PTE)

1920 – 1930 Jaime Reis, Chapter 7 – Money and Credit in “Nuno Valério, Portuguese Historical Statistics”. Table 7.7 — Banks, bankers and banking houses, 1858-1892, 1919-1990 (1929/1930 interpolated). Loans, Mainland. Chainlinked.

1931-1960 Estatisticas Monetaria Financeiras (various). Series “Carteira commercial” + “Contas correntes”+”Devedores e credores”. “Bancos e casas bancario” - less “Bank of Portugal”. Chainlinked.

1961 Chainlinked with growth rate of deposits.

1962-1977 Estatisticas Monetaria Financeiras (various issues). Series “Carteira commercial”+”Emprestimos e contas”. “Bancos e casas bancario” less “Banco Formento” and “Bank of Portugal”. Chainlinked.

1978-1996 Estatisticas Monetaria Financeiras (various issues). Bancos comerciais. Table Balanco em 31 de Dezembro. Series “Credit over clients”. Adjusted for break in 1982. Chainlinked.

1997-2020 ECB Statistical Data Warehouse, Loans vis-a-vis euro area non-MFI excl. general gov. reported by MFI excluding ESCB in Portugal (stock) BSI.M.PT.N.A.A20.A.1.U2.2200.Z01.E

Noncore ratio

Noncore ratio = (Total Assets - Capital - Deposits) / (Total Assets - Capital)

SPAIN

(Data in millions ESP)

Macro Data

Population

1870 – 2020 from Leandro Prados de la Escosura, Spain's Historical National Accounts: Expenditure and Output. TABLE: Absolute and Per Capita Gross Value Added and Gross Domestic Product at market prices, 1850-2020. Series: Population. http://espacioinvestiga.org/bbdd-chne/?lang=en

GDP (converted to millions ESP)

1870 – 2020 from Leandro Prados de la Escosura, Spain's Historical National Accounts: Expenditure and Output. TABLE 35: Gross Domestic Product and its Expenditure Components, 1850-2020.

Real GDP per capita (PPP, 1990 Int$, Maddison)

1870 – 2020 from Leandro Prados de la Escosura (2021), Spain's Historical National Accounts: Expenditure and Output, 1850-2016. TABLE 26. Real Per Capita Gross Domestic Product, 1850-2017 (GK $1990)

Real GDP per capita (index, 2005=100)

1870 – 2020 from Leandro Prados de la Escosura (2021), Spain's Historical National Accounts: Expenditure and Output, 1850-2016. TABLE 14. Volume Indices of Absolute and Per Capita Gross Domestic Product at market prices and Gross Value Added, 1850-2016. Rebased to 2005=100.

Real consumption per capita (index, 2006=100)

1870 – 2020 from Leandro Prados de la Escosura, Spain's Historical National Accounts: Expenditure and Output. TABLES 1 (private consumption), 3 (population) and 7 (consumption deflator). Rebased to 2006=100.

Investment-to-GDP ratio

1870 – 2020 from Leandro Prados de la Escosura, Spain's Historical National Accounts: Expenditure and Output, 1850-2015. TABLE 1. Gross Domestic Product and its Expenditure Components, 1850-2017. Gross Capital Formation divided by GDP.

Consumer prices (index, 1990=100)

1870-1879 from Albert Carreras, and Xavier Tafunell. Estadísticas históricas de España: siglos XIX-XX. Vol. 3. Fundacion BBVA, 2005, p. 1289, Table Cuadro 16.19: Indices de precios, 1800-1958, series Maluquer de Motes

1880 – 1996 from A. Taylor (2002), A Century of Purchasing–Power Parity, Review of Economics and Statistics, vol 84(1), pp. 139–150.

1997 – 2020 from International Monetary Fund World Economic Outlook (2021). Series “Inflation, average consumer prices” (accessible online at https://www.imf.org/external/pubs/ft/weo/2019/01/weodata/index.aspx). Chainlinked.

Narrow Money (converted to millions ESP)

1874 – 1998 from A. Carreras and X. Tafunell (eds.), Estadísticas Históricas de España, Madrid 2005. Table 9.16. Series: Oferta Monetaria. (Note: no data for 1936-1940). End of year values.

1999-2020 from Bank of Spain, 1.14 - Euro area monetary aggregates and the contribution of MFIs resident in Spain to the aggregates, Agregados monetarios de la UEM. M1. Contribución de las IFM residentes en España. Saldos. End of year values. Chain-linked.

Broad Money (converted to millions ESP)

1874 – 1978 from A. Carreras and X. Tafunell (eds.), Estadísticas Históricas de España, Madrid 2005, table 9.16. Series: Disponibilidades Líquidas. (Note: no data for 1936-1940).

1979 – 1996 from A. Carreras and X. Tafunell (eds.), Estadísticas Históricas de España, Madrid 2005, table 9.16. Series: M3

1997 – 2020 from Banco de Espana. Contribution of the MFIs resident in Spain to the euro area monetary aggregates and counterparts of M3 - Contribución de las IFM residentes en España a la M3 de la UEM.Saldos http://www.bde.es/webbde/en/estadis/infoest/bolest1.html

Short–term interest rate (nominal, percent per year)

1870 – 1882 from Bank of Spain archive; Stock listings; Bank of Spain discount rate; annual average of monthly values

1883 - 1914 Neal, Larry D., and Marc D. Weidenmier. "Crises in the global economy from tulips to today." Globalization in historical perspective. University Of Chicago Press, 2003. 473-514. Open Market Rate, Monthly, End of Year Value. (accessible online at http://ebutts05.tripod.com/nealweidenmiergsd/)

1915 – 1919 from Bank of Spain archive; Stock listings; Bank of Spain discount rate; annual average of monthly values

1920 - 1923 from Carreras, Albert and Xavier Tafunell, 2005, “Estadísticas históricas de Espana, Siglos XIX – XX, Volumen I,” Fundación BBVA, Table 9.17. Descuento comercial.

1924 - 1941 League of Nations, International Statistical Yearbook (various issues), League of Nations, Geneva. Central Bank Discount Rate.

1942 – 1974 from Carreras, Albert and Xavier Tafunell, 2005, “Estadísticas históricas de Espana, Siglos XIX – XX, Volumen I,” Fundación BBVA, Table 9.17. Redescuento Básico.

1975 – 2020 International Monetary Fund (2021). International Financial Statistics database (IFS). Section “Economic indicators”, Series “Interest Rates – money market rate” (accessible online at https://data.imf.org/). To calculate the value for 2018 the growth rate from OECD short term interest rate series was used.

Long–term interest rate (nominal, percent per year)

1870 – 1879 from bond price quotations in newspapers: “Diario oficial de avisos de Madrid”: Current Yield calculated from the following bond price notations: Renta perpétua al 3 por 100,

and from “La Correspondencia de Espana”: Current Yield calculated from the following bond price notations: 3 % consolidado; renta perp. 3%

1880 – 1913 from Olivier Accominotti, Marc Flandreau, and Riad Rezzik’s “The Spread of Empire: Clio and the Measurement of Colonial Borrowing Costs”.

1914 – 1935 from Carreras, Albert and Xavier Tafunell, 2005, “Estadísticas históricas de Espana, Siglos XIX – XX, Volumen I,” Fundación BBVA, Table 10.35. Series: Deuda perpetuo interior 4%.

1936 from Instituto Nacional de Estadística (INE). Anuarios Estadísticos (various issues). Finanzas - Bolsa - Deudas del Estado, Cotizacion - 4 por 100 interior: Yield = 4/price. Chain linked to previous series.

1940 - 1971 from Instituto Nacional de Estadística (INE). Anuarios Estadísticos (various issues). Finanzas - Bolsa - Deudas del Estado, Cotizacion - 4 por 100 interior: Yield = 4/price.

1972 – 1978 Average end of year yield on Spanish bonds. Data taken from spanish newspaper ABC, available online at http://hemeroteca.abc.es/nav/Navigate.exe/hemeroteca.

1979 – 2020 International Monetary Fund (2021). International Financial Statistics (IFS). Data reports “Economic indicators (IFS)”, Section “Interest rates”, Series “Government Bonds, Percent per Anum”.

Current Account (converted to millions ESP)

1870 – 1913 from L. Prados De La Escosura (2010), Spain's international position 1850 –1913, Journal of Iberian and Latin American Economic History, 20(1), p. 173—215.

1931 – 1974 from A. Tena Junguito (2007), New series of the Spanish foreign sector, 1850–2000, Working Papers in Economic History WP 07–14, Universidad Carlos III de Madrid. Note: gaps between 1935 - 1939

1975 – 1992 International Monetary Fund (2010), International Financial Statistics. Table “Balance of payments”, Series “Balances – current account balance” (accessible online http://elibrary–data.imf.org/).

1993 – 2020 International Monetary Fund, World Economic Outlook. % of GDP * nominal GDP = Current Account

Imports & Exports (converted to millions ESP)

1870 – 2020 Leandro Prados de la Escosura, Spain's Historical National Accounts: Expenditure and Output. TABLE: Gross Domestic Product and its Expenditure Components.

Government Revenues (converted to millions ESP)

1870 – 1994 from C.B. López, A. Carreras & X. Tafunell (2005), Estadísticas Históricas de España, Fundación BBVA, Bilbao. Note: gaps between 1936- 1939

1995 – 2020 from OECD, OECD.Stat. Database “OECD national accounts statistics,” Dataset “General government accounts,” Table 12 “Government deficit/surplus, revenue, expenditure, and main aggregates,” Sector GS1311 “Central government,” Measure “National currency,

current prices," Series GTR "Total general government revenue" (accessible online at http://www.oecd–ilibrary.org/statistics).

Government Expenditure (converted to millions ESP)

1870 – 1994 from C.B. López, A. Carreras & X. Tafunell (2005), Estadísticas Históricas de España, Fundación BBVA, Bilbao. Note: gaps between 1936- 1939

1995 – 2020 from OECD, OECD.Stat. Database "OECD national accounts statistics," Dataset "General government accounts," Table 12 "Government deficit/surplus, revenue, expenditure, and main aggregates," Sector GS1311 "Central government," Measure "National currency, current prices," Series GTE "Total general government expenditure" (accessible online at http://www.oecd–ilibrary.org/statistics).

Public debt-to-GDP ratio

1880 – 1970 from Carreras, Albert and Xavier Tafunell, 2005, "Estadísticas históricas de Espana, Siglos XIX – XX, Volumen I," Fundación BBVA, Series: Cuadro 12.34: "Deuda pública total en circulación," Note: gaps between 1936- 1939, 1948 – 1949. Divided by GDP from JST dataset. Level.

1971 – 2020 from European Commission, Economic and Financial Affairs, AMECO database, Chapter 18 Gross Public Debt.18.2 – Based on ESA 2010 and former definitions. Gross Public Debt (linked series) (UDGGL). Percentage of GDP at market prices (excessive deficit procedure) (data accessible online at http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm). Level.

USD exchange rate (local currency/USD)

1870 - 1934 from Carreras A. & Tafunell, X. (2005). Estadísticas históricas de Espana. Table 9.19

1935 – 1941 from Lawrence H. Officer, "Exchange Rates Between the United States Dollar and Forty-one Currencies,", MeasuringWorth, 2015 http://www.measuringworth.com/exchangeglobal/

1942 - 1945 from Carreras A. & Tafunell, X. (2005). Estadísticas históricas de Espana. Table 9.19

1946 - 1965 from Reinhart, C. M. & Rogoff, K. S. (2010). From financial crash to debt crisis. (Black) market exchange rate.

1966 - 2020 from International Financial Statistics. IMF eLibrary. Nominal Exchange Rate (domestic currency / US Dollar) (end of period).

Note: We assume a Italian Spanish peseta-euro exchange rate of 166.386 where necessary.

Peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1-2, all 3-6=0); broad peg category including crawling pegs.

2008 – 2020 extension of of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1-2, all 3-6=0); broad peg category including crawling pegs.

Strict peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1, all 2-6=0); strict peg category excluding crawling pegs.

2008 – 2020 extension of of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1, all 2-6=0); strict peg category excluding crawling pegs.

Exogenous monetary policy shocks

Exogenous variation in the short-term interest rate from Òscar Jordà, Moritz Schularick, Alan M. Taylor and Felix Ward, 2019. “Global financial cycles and risk premiums”. IMF Economic Review, Volume 67 Number 1, pp. 109-150, which uses the identification strategy using local projection with instrumental variables laid out in Òscar Jordà, Moritz Schularick and Alan M. Taylor, 2020. “The effects of quasi-random monetary experiments”. Journal of Monetary Economics 112: 22-40.

House prices (nominal index, 1990=100)

1971 – 2020 from OECD housing prices database. Nominal series. Rebased 1990=100.

Unemployment rate (percent)

1933 – 1935 and 1939 – 1955**:** from Instituto Nacional de Estadística. Database: “Anuarios Estadisticos”. For all available years, I collected the number of unemployed persons who had to quit their job in an involuntary manner (as the average of the monthly observations per year, when not possible I just took the December value of the series “Numero de parados”). Then, I divided by a labor force measure “población activa” whenever possible or by total population (accessible online: https://www.ine.es/inebase_historia/inebase_historia.htm). Chainlinked.

1956 - 1984**:** from OECD (2015), OECD.Stat. Database: “Labour”, “Labour Force Statistics”, Dataset: “ALFS summary tables”, “Annual labour force statistics” (accessible online: http://stats.oecd.org/). Chainlinked.

1985 – 2020**:** from ILOSTAT (2021), Table: “Unemployment rate by sex and age (%) - Annual” based on the EU Labour force survey accessible online at: https://ilostat.ilo.org/data/.

Wages (index, 1990=100)

1870 - 1916 and 1932 - 1934 Albert Carreras de Odriozola, Xavier Tafunell Sambola (2006) Estadísticas históricas de España, siglos XIX-XX. Índices de salarios nominales de Madrid, Barcelona, Vizcaya y media nacional, 1800-1949. Average nominal wages in Madrid, Barcelona and Minas de Viscaya. Chainlinked.

1917 – 1931, 1935 and 1943 - 1962 Albert Carreras de Odriozola, Xavier Tafunell Sambola (2006) Estadísticas históricas de España, siglos XIX-XX. Salario medio efectivo en la industria (pesetas por dia) (cuadro 15.23). National average industrial wage. Chainlinked.

1963 - 1989 International Monetary Fund International Financial Statistics database (IFS). Labor Markets, Wage Rates, Index. Accessible online at http//data.imf.org/. Chainlinked.

1990 - 2020 OECD. OECD statistics. Average annual wages. Current prices. Levels. Accessible online at http//stats.oecd.org/.

Credit Data (converted to millions ESP)

Total loans to non-financial private sector

1900 – 1935 from C.B. López, A. Carreras & X. Tafunell (2005), ibid. Table 9.12 & Tabe 9.13: “Prívate banks & cajas”, Sum of series “Créditos y prestamos”.

1946 – 1961 growth rate calculated from from C.B. López, A. Carreras & X. Tafunell (2005), ibid. Table 9.13 “Prívate banks & cajas”, Series “Créditos y prestamos”.

1962 – 2020 from Banco de España (2021), Boletin Estadistico Series Code D_BEEA1000 “Entidades de crédito. Crédito por grupos de entidades a otros sectores residentes. Total entidades de credito,” (available online at http://www.bde.es/webbde/en/estadis/infoest/bolest.html).

Mortgage loans to non-financial private sector

1904 – 1935 from C.B. López, A. Carreras & X. Tafunell (2005), ibid. Table 6.11, Series “Prestamos Constituidos con Hipotecas sobre Fincas Urbanas”, p497.

1946 – 1951 growth rate calculated from C.B. López, A. Carreras & X. Tafunell (2005), ibid. Table 6.11, Series “Prestamos Constituidos con Hipotecas sobre Fincas Urbanas”, p497.

1952 – 1961 growth rate calculated from Instituto Nacional de Estadístico (1962) Anuario Estadístico de España 1962. Series “Secured Credits to Private Sector (Deudores con garantía real) from Private Banks” p217; and Instituto Nacional de Estadístico (1964) Anuario Estadístico de España 1964. Series “Secured Credits to Private Sector (Deudores con garantía real) from Private Banks” p236.

1962 – 1984 from Banco de España (2012), Series 298310 “Entidades de crédito, OSR, deudores, con garantía real”, Code BE_4_3.5 (available online at http://www.bde.es/webbde/en/estadis/infoest/bolest.html).

1985 average of 1984 & 1986 (break in original series for unknown reason).

1986 – 2020 from Banco de España (2021), Boletin Estadistico Series Code 615195 “Entidades de crédito. Activo. Otros sectores residentes en España. Deudores con garantía real. Del cual:

Con garantía hipotecaria," (available online at http://www.bde.es/webbde/en/estadis/infoest/bolest.html).

Total Loans to Households

1946 – 1982 growth rate calculated from Loans to Households Secured by Real Estate.

1983 – 1991 growth rate calculated from Banco de España (2012), Table BE0414, Series "Bancos, OSR, crédito para otras financiaciones a hogares por funciones de gasto".

1992 – 2020 from Banco de España (2021), Statistical Bulletin, 4.Credit institutions and credit financial intermediaries, 4.13. Total lending and total doubtful loans to other resident sectors by type. Total to finance productive activity and breakdown by type of spending, Series Code D_MEE62000, "EC y EFC. Créditos a OSR por finalidades. Otra financiación a hogares por funciones de gasto. Total," (available online at http://www.bde.es/webbde/en/estadis/infoest/bolest.html).

Total Loans to Business

Residual of Total loans to non-financial private sector and Loans to Households.

Corporate Debt

1904–1935 bank lending to business from Estadisticas Historicas de Espana, by Lopez, Carreras, and Tafunell (1989); table 9.12: Entitades de credito.

1946–1979 residual of total bank loans to non-financial private sector and total loans to households (both from JST MacroHistory Database).

1980–2012 OECD financial accounts data on total non-equity liabilities of the private non-financial business sector.

2013–2019 eurostat financial accounts data on total non-equity liabilities of the private non-financial business sector.

Bank balance sheet ratios

(Ratios in %, underlying data in millions ESP)

Capital ratio

Capital ratio = Capital / Total Assets

<u>Total Assets (converted to millions ESP)</u>

1874-1913 Tedde de Lorca, Pedro (1974), "La banca privada espanola durante la restauración (1874-1914) in Gabriel Tortella (ed.): La banca espanola en la restauracion, Madrid, Banco de Espana, Servicio de Estudios, pp. 217-456, Series "Total Activo", chainlinked.

1914 Pablo Martín Aceña and M.a Ángeles Pons, “Sistema monetario y financier” in Albert Carreras and Xavier Tafunell ed (2005), Estadisticas Historicas de Espana, Siglos XIX-XX. Chainlinked with sum of “Cuentas corrientes” and “Depósitos a plazo”.

1915-1935 José Luis García Ruiz, “Crisis Financiera en Espana 1930 - 1935“, Cuadro 7, “Desarollo de los bancos locales espanoles de 1915 a 1935”. Series “Total Activo”. Excludes accounts under custody. Levels. (Comment: Almost match data in Albert Carreras and Xavier Tafunell ed (2005), Estadisticas Historicas de Espana, Siglos XIX-XX, but balance sheet looks more consistent. Also matches data in “José Luis Malo de Molina and Pablo Martín-Aceña “The Spanish financial system - Growth and development since 1900”).

1942-1946 Pablo Martín Aceña and M.a Ángeles Pons, “Sistema monetario y financier” in Albert Carreras and Xavier Tafunell ed (2005), Estadisticas Historicas de Espana, Siglos XIX-XX “Total Activo y Passivo”.

1947-1961 Anuario Estadistico de la Banca Privada - Consejo Superior Bancario (issues 1974, 1975, 1976, 1977, 1978), Table Balances Totales, Series Suma el Pasivo

1962-2020 Boletin Estadistico, Bank of Spain, Aggregated balance sheet from supervisory returns, 4. Entidades de crédito y establecimientos financieros de crédito, Table 4.1, Column 1, Total Assets. Levels. (online accesible at: https://www.bde.es/webbde/en/estadis/infoest/bolest4.html)

Capital (converted to millions ESP)

1874-1914 Tedde de Lorca, Pedro (1974), “La banca privada espanola durante la restauración (1874-1914) in Gabriel Tortella (ed.): La banca espanola en la restauracion, Madrid, Banco de Espana, Servicio de Estudios pp. 217-456, sum of “Capital” and “Reservas”, chainlinked via capital ratio (constant ratio in 1914/1915).

1915-1935 José Luis García Ruiz, “Crisis Financiera en Espana 1930 - 1935“, Cuadro 7, “Desarollo de los bancos locales espanoles de 1915 a 1935”. Series “Capital desembolsado” + “Reservas”. Levels.

1942-1946 Pablo Martín Aceña and M.a Ángeles Pons, “Sistema monetario y financier” in Albert Carreras and Xavier Tafunell ed (2005), Estadisticas Historicas de Espana, Siglos XIX-XX “Capital desembolsado”, chainlinked.

1947-1961 Anuario Estadistico de la Banca Privada - Consejo Superior Bancario (issues 1974, 1975, 1976, 1977, 1978), Table Balances Totales, Sum of “Capital” and “Reservas”. Chainlinked.

1962-2020 Boletin Estadistico, Bank of Spain, 4. Entidades de crédito y establecimientos financieros de crédito, Table 4.7 Equity, valuation adjustments and impairment allowances, Column 2, Total Equity. Levels. (online accesible at: https://www.bde.es/webbde/en/estadis/infoest/bolest4.html)

Loans-to-Deposits ratio

Loans-to-Deposits ratio = Loans / Deposits

Deposits (converted to millions ESP)

1874-1899 Tedde de Lorca, Pedro (1974), “La banca privada espanola durante la restauración (1874-1914) in Gabriel Tortella (ed.): La banca espanola en la restauracion, Madrid, Banco de Espana, Servicio de Estudios pp. 217-456, series “Cuentas corrientes”, chainlinked.

1900-1914 Pablo Martín Aceña and M.a Ángeles Pons, “Sistema monetario y financier” in Albert Carreras and Xavier Tafunell ed (2005), Estadisticas Historicas de Espana, Siglos XIX-XX “Cuentas corrientes”+”Depositos a plazo”, chainlinked.

1915-1920 José Luis Malo de Molina and Pablo Martín-Aceña “The Spanish financial system - Growth and development since 1900”, p. 106. Series “Deposits”. Levels.

1921-1922 Pablo Martín Aceña and M.a Ángeles Pons, “Sistema monetario y financier” in Albert Carreras and Xavier Tafunell ed (2005), Estadisticas Historicas de Espana, Siglos XIX-XX “Cuentas corrientes”+”Depositos a plazo”, chainlinked.

1923-1935 José Luis Malo de Molina and Pablo Martín-Aceña “The Spanish financial system - Growth and development since 1900”, p. 111. Series “Deposits”. Levels.

1942-1961 Pablo Martín Aceña and M.a Ángeles Pons, “Sistema monetario y financier” in Albert Carreras and Xavier Tafunell ed (2005), Estadisticas Historicas de Espana, Siglos XIX-XX “Cuentas corrientes”+”Depositos a plazo”, chainlinked

1962-2020 Boletin Estadistico, Bank of Spain, 4. Entidades de crédito y establecimientos financieros de crédito, Table 4.2 Pasivo, Column 5, Deposits, Domestic, Other sectors. (online accesible at: https://www.bde.es/webbde/en/estadis/infoest/bolest4.html)

Loans (converted to millions ESP)

1874-1914 Tedde de Lorca, Pedro (1974), “La banca privada espanola durante la restauración (1874-1914) in Gabriel Tortella (ed.): La banca espanola en la restauracion, Madrid, Banco de Espana, Servicio de Estudios pp. 217-456, series “Prestamos”, chainlinked.

1915-1922 Pablo Martín Aceña and M.a Ángeles Pons, “Sistema monetario y financier” in Albert Carreras and Xavier Tafunell ed (2005), Estadisticas Historicas de Espana, Siglos XIX-XX “Creditos”, chainlinked.

1923-1935 José Luis Malo de Molina and Pablo Martín-Aceña “The Spanish financial system - Growth and development since 1900”, p. 111. Series “Loans and Credit”+ “Bills discounted”

(Bills discounted are only available for a few years, hence estimated using average share relative to Loans and Credit).

1942-1961 Pablo Martín Aceña and M.a Ángeles Pons, "Sistema monetario y financier" in Albert Carreras and Xavier Tafunell ed (2005), Estadisticas Historicas de Espana, Siglos XIX-XX "Creditos"+"Inversiones", chainlinked.

1962-2020 Boletin Estadistico, Bank of Spain, 4. Entidades de crédito y establecimientos financieros de crédito, Table 4.1 Activo, Credito, Domestic, Other sectors. (online accesible at: https://www.bde.es/webbde/en/estadis/infoest/bolest4.html)

Noncore ratio

Noncore ratio = (Total Assets – Capital - Deposits) / (Total Assets - Capital)

SWEDEN

(Data in millions SEK)

Macro Data

Population

1870 – 2009 from Angus Maddison Database (2010). Table 1 "Population levels, 1AD–2030AD" (accessible online at http://www.ggdc.net/maddison/Historical_Statistics/horizontal–file_02–2010.xls).

2010 – 2017 growth rates from International Monetary Fund (Aug, 2019), World Economic Outlook. Subject "People – population" (base year: 2009) (accessible at www.imf.org).

2018 – 2020 growth rates from International Monetary Fund (Oct, 2021), World Economic Outlook. Subject "People – population" (base year: 2009) (accessible at www.imf.org).

GDP (millions SEK)

1870 – 1949 from Groningen Growth and Development Centre (2014), Historical National Accounts Database, University of Groningen, Groningen. Table "Sweden, value added at market prices in current price", Series "Total GDP" (accessible online at http://www.ggdc.nl/databases/hna/2009/data/hna_swe_09.xls).

1950 – 2020 from International Monetary Fund (2021), International Financial Statistics. Series "Gross domestic product, nominal" (accessible online at https://data.imf.org/).

Real GDP per capita (PPP, 1990 Int$, Maddison)

1870 – 2010 from The Maddison-Project, http://www.ggdc.net/maddison/maddison-project/home.htm, 2013 version. http://www.ggdc.net/maddison/maddison-project/home.htm . Level.

2011 – 2020 from International Monetary Fund. World Economic Outlook. Series: Gross domestic product based on purchasing-power-parity (PPP) per capita GDP. Chain-linked.

Real GDP per capita (index, 2005=100)

1870 – 2004 from R. Barro & and J. Ursúa (2010), Macroeconomic Data Set, Harvard University, Cambridge MA (accessible online at http://scholar.harvard.edu/barro/publications/barro–ursua–macroeconomic–data).

2005 – 2020 growth rate calculated from World Bank (2021), Category "Economic policy and external debt," Series "GDP per capita (constant 2010 US$) (accessible online at http://data.worldbank.org/indicator/NY.GDP.PCAP.KD).

Real consumption per capita (index, 2006=100)

1870 – 2009 from Robert C. Barro and José F. Ursúa (2010), Barro–Ursúa Macroeconomic Data. For respective sources see original data set: http://rbarro.com/data–sets/.

2010 – 2020 from World Bank household final consumption expenditure per capita (constant 2010 US$). Chain linked.

Investment-to-GDP ratio

1870 – 1949 from Rodney Edvinsson (2004), "Historical national accounts for Sweden 1800 – 2000 (Historiska nationalräkenskaper för Sverige 1800 – 2000)", Version 1.0 (file retrievable at http://www.historia.se/tablesAtoX.xls).

1950 – 2020 from International Monetary Fund, International Financial Statistics. Data Report "National Accounts", Series "Gross Fixed Capital Formation, Nominal" (accessible online at https://data.imf.org/).

Consumer prices (index, 1990=100)

1870 – 2020 from Statistics Sweden, series "CPI, Historical numbers 1830 -". Rebased to 1990=100. (accessible online at: https://www.scb.se/en/finding-statistics/statistics-by-subject-area/prices-and-consumption/consumer-price-index/consumer-price-index-cpi/pong/tables-and-graphs/consumer-price-index-cpi/cpi-historical-numbers-1830/)

Narrow Money (millions SEK)

1871 – 1994 from Historical monetary statistics for Sweden 1668–2008 – series M0 (available online at www.riksbank.se/en/The-Riksbank/Research/Historical-Monetary-Statistics-/Money-supply/). (Chain linked)

1995-2016 IMF eLibrary. International Financial Statistics. Monetary Aggregates – M0.

2014-2020 Statistics Sweden. Financial Market Statistics Table tab 5.1 (Money supply and the monetary base), 5.1.1 (Money supply, M1, M2 and M3) Table 1 (Money supply, notes and coins held by Swedish non-bank public, M1 (SEK millions)) in column D (Notes and coins held by Swedish non-bank public). There is a plus sign to the left where you can expand the timeseries. The timeseries dates back to 1998. (available online at https://scb.se/en/finding-

statistics/statistics-by-subject-area/financial-markets/financial-market-statistics/financial-market-statistics/)

Broad Money (millions SEK)

1871 – 1960 from Historical monetary statistics for Sweden 1668–2008 - series M3 (available online at www.riksbank.se/en/The-Riksbank/Research/Historical-Monetary-Statistics-/Money-supply/). (chain linked)

1961-1996, IMF eLibrary. International Financial Statistics. Monetary Aggregates – M3.

1997 – 2020 Statistics Sweden. Financial Market Statistics . Tables and graphs. Money supply. Excel Table. M3. December values.

Short–term interest rate (nominal, percent per year)

1870-1998 from D. Waldenstroem Swedish Stock and Bond Returns, 1856–2012, IFN Working Paper No. 1027, Research Institute of Industrial Economics, Stockholm. Excel file Tab: Table II.A6.9 Short-term interest rate. Annual average of monthly series. Level.

1999–2020 OECD, short-term interest rate, percent per anum, average of monthly values.

Long–term interest rate (nominal, percent per year)

1870 – 1873 sum of "Yield on consols" (from Bank of England, Three centuries of macroeconomic data, Series: Yield on consols) and "Spread on consols" (from Clemens, M. A. and Williamson, J. G. (2004). Wealth bias in the first global capital market boom, 1870–1913. The Economic Journal.)

1874 – 2000 from Daniel Waldenström (2014), "Swedish stock prices and returns and bond yields, 1856–2012," Sveriges Riksbank. Accessible online at http://www.riksbank.se/en/The–Riksbank/Research/Historical–Monetary–Statistics–/Interest–and–stock–returns/. Level.

2001 – 2016 from International Monetary Fund (2019), International Financial Statistics (IFS). Data Series: "Interest rates, government securities, Government Bonds". Level.

2017 – 2020: OECD (2020). OECD iLibrary. Long-term interest rates doi: 10.1787/662d712c-en

Current Account (millions SEK)

1870 – 1945 from M. Jones & M. Obstfeld (1997), Saving, Investment, and Gold: A Reassessment of Historical Current Account Data, NBER Working Paper No. 6103, MIT Press, Cambridge MA (accessible online at http://www.nber.org/databases/jones–obstfeld/). Level.

1946 – 2007 from B. Mitchell (2013), International Historical Statistics. Table: G3 Balance of Payments. Since 1948 in USD – redenominated into SEK using the exchange rate of the JST dataset. Level.

2008 – 2020 International Monetary Fund, World Economic Outlook. % of GDP. Multiplied by nominal GDP from JST dataset = Current Account. Level.

Imports & Exports (millions SEK)

1870 – 1947 from Mitchell, Brian (2013), International Historical Statistics: Europe, 1750 – 2010, Table: E1 Europe: External Trade Aggregate Current Value, Palgrave Macmillan, London. Level.

1948 – 1993 from International Monetary Fund (2014), International Financial Statistics: Value of Exports/Imports (National Currency). Level.

1994 – 2020 from International Monetary Fund, International Financial Statistics: archive, M10 2021, External Trade, Goods, Value of Exports, Free on Board (FOB), Domestic Currency; External trade, Imports, Goods, Value, Cost, Insurance freight, Domestic Currency.

Government Revenues (millions SEK)

1870 – 1997 from K. Fregert & R. Gustafsson (2008), Fiscal Statistics for Sweden 1719 – 2003, Research in Economic History, 25, pp169–224.

1998 – 2020 from OECD (2021), OECD.Stat. Database "OECD national accounts statistics," Dataset "General government accounts," Table 12 "Government deficit/surplus, revenue, expenditure, and main aggregates," Sector GS1311 "Central government," Measure "National currency, current prices," Series GTR "Total general government revenue" (accessible online at www.oecd–ilibrary.org/statistics).

Government Expenditure (millions SEK)

1870 –1997 from K. Fregert & R. Gustafsson (2008), ibid.

1998 – 2020 from OECD (2021), OECD.Stat. Database "OECD national accounts statistics," Dataset "General government accounts," Table 12 "Government deficit/surplus, revenue, expenditure, and main aggregates," Sector GS1311 "Central government," Measure "National currency, current prices," Series GTE "Total general government expenditure" (accessible online at www.oecd–ilibrary.org/statistics).

Public debt-to-GDP ratio

1870 – 1998 from Fregert and Gustafsson (2005): Fiscal Statistics for Sweden 1719–2003. Research in Economic History 25, pp. 169–22. Online: http://www.riksbank.se/en/The-Riksbank/Research/Historical-Monetary-Statistics-of-Sweden/Volume-II-House-Prices-Stock-Returns-National-Accounts-and-the-Riksbank-Balance-Sheet-16202012/

1999 – 2020 from European Commission, Economic and Financial Affairs, AMECO database, Chapter 18 Gross Public Debt.18.2 – Based on ESA 2010 and former definitions. Gross Public Debt (linked series) (UDGGL). Percentage of GDP at market prices (excessive deficit procedure) (data accessible online at http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm).

USD exchange rate (local currency/USD)

1870 - 1880 from Denzel. M.A. (2010). Handbook of World Exchange Rates, 1590-1914. . SEK/ GB pounds *GBP / US Dollar (contained in this dataset)

1881 – 1939 from Riksbank. Historical Monetary Statistics of Sweden. SEK/GBP exchange rate multiplied with GBP/USD exchange rate (see USD exchange rate of the U.K.).

1940 – 1945 from Bordo, M. D. & Jonung, L. (1996) Monetary Regimes, Inflation And Monetary Reform: An Essay in Honor of Axel Leijonhufvud.

1946 - 1958 from Reinhart, C. M. & Rogoff, K. S. (2010). From financial crash to debt crisis. (Black) market exchange rate.

1959-2020 from International Financial Statistics. IMF eLibrary. Nominal Exchange Rate " Exchange Rates, National Currency Per U.S. Dollar, End of Period, Rate".

Peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1-2, all 3-6=0); broad peg category including crawling pegs.

2008 – 2020 extension of of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1-2, all 3-6=0); broad peg category including crawling pegs.

Strict peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1, all 2-6=0); strict peg category excluding crawling pegs.

2008 – 2020 extension of of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1, all 2-6=0); strict peg category excluding crawling pegs.

Exogenous monetary policy shocks

Exogenous variation in the short-term interest rate from Òscar Jordà, Moritz Schularick, Alan M. Taylor and Felix Ward, 2019. "Global financial cycles and risk premiums". IMF Economic Review, Volume 67 Number 1, pp. 109-150, which uses the identification strategy using local projection with instrumental variables laid out in Òscar Jordà, Moritz Schularick and Alan M. Taylor, 2020. "The effects of quasi-random monetary experiments". Journal of Monetary Economics 112: 22-40.

House prices (nominal index, 1990=100)

1875 – 2012 from Knoll et al. (2014). No price like home: Global house prices, 1870-2012. Year average values.

2013 – 2020 from OECD housing prices database. Nominal series. Chain-linked.

Unemployment rate (percent)

1911-1919: from Galenson and Zellner (1957) – The Measurement and Behavior of Unemployment, Chapter: International Comparison of Unemployment Rates, Table 1 "Unemployment Rates, Nine Countries, 1900-1950 (per cent)". Chainlinked.

1920-1939: from Grytten, Ola Honningdal. Economic policy and labour markets in Nordic countries during the great depression of the 1930s. In: XIV International Economic History Congress, Helsinki. 2006.

1940 – 1989: from Mitchell, Brian (2013), International Historical Statistics: Europe, 1750 – 2010, Table: B2 Europe: Unemployment, Palgrave Macmillan, London. Chainlinked.

1990 – 2020: from ILOSTAT (2021), Table: "Unemployment rate by sex and age (%) - Annual" based on the EU Labour force survey accessible online at: https://ilostat.ilo.org/data/.

Wages (index, 1990=100)

1870 - 1947 Rodney Edvinsson, Tor Jacobson och Daniel Waldenström (eds.) (2010). "Historical Monetary and Financial Statistics for Sweden Exchange Rates, Prices, and Wages, 1277-2008.". Wages (no payroll taxes) for male workers in Sweden 1803-2004. Chainlinked.

1948 - 1989 International Monetary Fund International Financial Statistics database (IFS). Labor Markets, Wage Rates, Index. Accessible online at http//data.imf.org/. Chainlinked.

1990-2020 OECD. OECD statistics. Average annual wages. Current prices. Levels. Accessible online at http//stats.oecd.org/.

Credit Data (millions SEK)

Total loans to non-financial private sector

1871 – 1974 calculated from Riksbank (2008), Historical Monetary Statistics for Sweden 1668 – 2008, Swedish Monetary History Project. Table 2 "Bank lending, monthly figures" + growth rate calculated from Statistics Sweden (various), Financial Market Statistics. Section 3.11 "Housing credit institutions' balance sheet times series", Series "Landshypoteksinstitutionen, Sveriges Allmänna Hypoteksbank", Series "Stadshypotekskassa", Series "Bostadskreditkassan" using base value of Table 3.11.1 "Housing credit institutions' lending, SEK millions", Series "Non–financial corporations", Series "Households incl. NPISH" 1975.

1975 – 2020 calculated from Statistics Sweden (various), Monetary Financial Institutions (MFI), assets and liabilities by MFI, item and and currency.. Intitution: "Banks", Item: Kontoposter "Non–financial corporations", Item "Households" + Intitution: "Housing credit institutions", Item "Non–financial corporations", Item "Households", Currency "Total currency", end of period values.

Mortgage loans to non-financial private sector

1871 – 1911 calculated from Statistics Sweden (various), Financial Market Statistics. Section 3.11 "Housing credit institutions' balance sheet times series", Series "Landshypoteksinstitutionen, Sveriges Allmänna Hypoteksbank", Series "Stadshypotekskassa", Series "Bostadskreditkassan" + Table 4.9 "Housing loans to households", Series "Solidariska bankbolag", Series "Bankaktie–bolag/Aktiebankerna".

1912 – 1974 growth rate calculated from Statistics Sweden (various), Financial Market Statistics. Section 3.11 “Housing credit institutions’ balance sheet times series”, Series “Landshypoteksinstitutionen, Sveriges Allmänna Hypoteksbank”, Series “Stadshypotekskassa”, Series “Bostadskreditkassan” using base value of TLSRE1975.

1975 – 2002 calculated from growth rate Statistics Sweden (various), Financial Market Statistics. Table 3.10.1 “Banks’ total landing and lending to non–MFI, SEK million”, Series “Households – total” using base value of Table 4.9 “Housing loans to households” 2003 + Table 3.11.1 “Housing credit institutions’ lending, SEK millions”, Series “Non–financial corporations”, Series “Households incl. NPISH”.

2003 – 2020 calculated from Statistics Sweden. Monetary Financial Institutions (MFI), assets and liabilities by MFI, item and and currency. Intitutions: “Housing credit institutions” Item: Sought-after items “Lending, Swe, Collateral housing, Households” and “Lending, Swe, Non-financial Corporations” + Intitutions: “Banks”, Item: Sought-after items: “Lending, Swe, Collateral housing, Households”, Currency: “Total currency”, End of period values (online available at: https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__FM__FM0401/MFIM1/).

Total Loans to Households

1871 – 1940 equal to Mortgage Loans to Households.

1975 – 2016 calculated from Statistics Sweden (various), Monetary Financial Institutions (MFI), assets and liabilities by MFI, item and and currency.. Series: “Housing credit institutions’ lending, SEK millions”, Series “Households incl. NPISH” + Series: “Banks’ total lending and lending to non–MFI, SEK million”, Series “Households – total”.Loans to Households Secured by Real Estate

1871 – 1940 equal to Mortgage loans to non-financial private sector

1945 – 1974 growth rate calculated from Statistics Sweden (various), Financial Market Statistics. Section 3.11 “Housing credit institutions’ balance sheet times series”, Series “Landshypoteksinstitutionen, Sveriges Allmänna Hypoteksbank”, Series “Stadshypotekskassa”, Series “Bostadskreditkassan” using base value of LHSRE 1975.

1975 – 2002 calculated from Statistics Sweden (various), Financial Market Statistics. Table 3.11.1 “Housing credit institutions’ lending, SEK millions”, Series “Households incl. NPISH” + growth rate calculated Table 3.10.1 “Banks’ total landing and lending to non–MFI, SEK million”, Series “Households – total” using base value of Table 4.9 “Housing loans to households” 2003.

2003 – 2020 calculated from Statistics Sweden (various), Financial Market Statistics. Series: “Housing credit institutions’ lending, SEK millions, Series “Households incl. NPISH” + Series: “Housing loans to households”.

Total Loans to Business

1975 – 2020 calculated from Statistics Sweden (various), Monetary Financial Institutions (MFI), assets and liabilities by MFI, item and and currency.. Series: “Housing credit institutions’ lending, SEK millions”, Series “Non–financial corporations” + Series: “Banks’ total landing and lending to non–MFI, SEK million”, Series “Non–financial corporations – Total”, Series “Financial corporate sector, not MFI – Total”.

Corporate Debt

1872–1940 residual of total bank loans to non-financial private sector and total loans to households (both from JST MacroHistory Database); total bank loans less loans of housing credit institutions.

1975–1979 bank loans to business calculated from Statistics Sweden (various), Financial Market Statistics. Series: “Housing credit institutions’ lending, SEK millions”, Series “Non-financial corporations” + Series: “Banks’ total landing and lending to non-MFI, SEK million”, Series “Non-financial corporations – Total”, Series “Financial corporate sector, not MFI – Total”.

1980–1994 bank loans to business and capital market debt from “Credit to the non-financial sector” database of the Bank of International Settlements (accessible online at https: //www.bis.org/statistics/totcredit.htm).

1995–2013 OECD financial accounts data on total non-equity liabilities of the private non-financial business sector.

2014–2019 eurostat financial accounts data on total non-equity liabilities of the private non-financial business sector.

Bank balance sheet ratios

(Ratios in %, underlying data in millions SEK)

Capital ratio

Capital ratio = Capital / Total Assets

Total Assets (millions SEK)

1870-2005 Sveriges Riksbank Monetary History Project, Table 8, Income Statement items of the Swedish commercial banks 1870-2005, Assets. From 1993 including savings banks. Levels.

2006-2020, Balance sheet statistics, Banks Total, Series A 15, Total Assets (http://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__FM__FM0402/FinBalAr/table/tableViewLayout1/?rxid=86abd797-7854-4564-9150-c9b06ae3ab07)

Capital (millions SEK)

1870-2005 Sveriges Riksbank Monetary History Project. Table 8 Income Statement items of the Swedish commercial banks 1870-2005. Capital. Includes 70% of untaxed reserves as capital (for details see Hortlund, Per (2005), The Long-Term Relationship between Capital and Earnings in Banking, SSE/EFI Working Paper Series in Economics and Finance, No 611). From 1993 including savings banks. Levels.

2006-2020, Balance sheet statistics, Banks Total, Series A27-A32 Equity. Chainlinked capital ratio.

(http://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__FM__FM0402/FinBalAr/table/tableViewLayout1/?rxid=86abd797-7854-4564-9150-c9b06ae3ab07)

Loans-to-Deposits ratio

Loans-to-Deposits ratio = Loans / Deposits

Deposits (millions SEK)

1870-1995 Sveriges Riksbank Monetary History Project, Excel sheet, Table 9. The Swedish money stock and its components, monthly figures 1871-2007, Series “Total deposits of commercial banks held by the public”. From 1993 including savings banks. Levels.

1996-2020, Balance sheet statistics, Banks Total, Series A18 Deposits and funding from the general public. Levels.
(http://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__FM__FM0402/FinBalAr/table/tableViewLayout1/?rxid=86abd797-7854-4564-9150-c9b06ae3ab07)

Loans (millions SEK)

1871-2000 Sveriges Riksbank Monetary History Project, Table 2. Bank lending, Commercial Banks. From 1993 including savings banks. Levels.

2001-2020, Balance sheet statistics, Banks Total, Series A4 Lending to the general public. Levels.(http://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__FM__FM0402/FinBalAr/table/tableViewLayout1/?rxid=86abd797-7854-4564-9150-c9b06ae3ab07)

Noncore ratio

Noncore ratio = (Total Assets – Capital - Deposits) / (Total Assets - Capital)

SWITZERLAND

(Data in millions CHF)

Macro Data

Population

1870 – 2008 from Angus Maddison Database (2008), ibid. Table 1 “Population levels, 1AD–2030AD” (accessible online at http://www.ggdc.net/maddison/Historical_Statistics/horizontal–file_02–2010.xls).

2009 – 2017 growth rates from International Monetary Fund (Aug, 2019), World Economic Outlook. Subject “People – population” (base year: 2008)

2018 – 2020 growth rates from International Monetary Fund (Oct, 2021), World Economic Outlook. Subject “People – population” (base year: 2008)

GDP (millions CHF)

1870 – 1889 from Universität Zürich, Historical Statistics of Switzerland online. Nationale Buchhaltung, Q.1.a Nominales und reales Bruttoinlandprodukt (Bruttowertschöpfung) 1851-1913 (in Millionen Franken). Chain-linked

1890 – 1948 from Universität Zürich, Historical Statistics of Switzerland online. Q.16a Bruttoinlandprodukt nach Verwendungsarten in Preisen von 1929 und nominal, 1890–1948 (Wirtschaftsgeschichte der Schweiz im 20. Jahrhundert)

1949 – 1989 from Universität Zürich, Historical Statistics of Switzerland online. Q.16b Bruttoinlandprodukt nach Verwendungsarten zu Preisen von 1990 und nominal, 1948–2005 in Mio. Franken (Wirtschaftsgeschichte der Schweiz im 20. Jahrhundert)

1990 – 2020 from International Monetary Fund (2021), International Financial Statistics. Data Report “Economic indicators”, Series “Gross domestic product (in millions) – GDP nominal” (accessible online at https://data.imf.org/).

Real GDP per capita (PPP, 1990 Int$, Maddison)

1870 – 2010 from The Maddison-Project, http://www.ggdc.net/maddison/maddison-project/home.htm, 2013 version. http://www.ggdc.net/maddison/maddison-project/home.htm . Level.

2011 – 2020 from International Monetary Fund. World Economic Outlook. Series: Gross domestic product based on purchasing-power-parity (PPP) per capita GDP. Chain-linked.

Real GDP per capita (index, 2005=100)

1870 – 2004 from R. Barro & and J. Ursúa (2010), Macroeconomic Data Set, Harvard University, Cambridge MA. (accessible online at http://scholar.harvard.edu/barro/publications/barro–ursua–macroeconomic–data).

2005 – 2020 growth rate calculated from World Bank (2021), Category “Economic policy and external debt,” Series “GDP per capita (constant 2010 US$) (accessible online at http://data.worldbank.org/indicator/NY.GDP.PCAP.KD).

Real consumption per capita (index, 2006=100)

1870 – 2009 from Robert C. Barro and José F. Ursúa (2010), Barro–Ursúa Macroeconomic Data. For respective sources see original data set: http://rbarro.com/data–sets/.

2010 – 2020 from World Bank household final consumption expenditure per capita (constant 2010 US$). Chain linked.

Investment-to-GDP ratio

1870-1913 from I: Historical Statistics of Switzerland. R) Investitionen, Bautätigkeit und Grundstückmarkt. R.1. Kapitalausgaben, Bruttoanlageinvestitionen undAustrüstungsinvestitionen 1850-1914 (in Millionen Franken). Sum of Bruttoanlageinvestitionen + Ausrüstungsinvestitionen. GDP: from JST dataset.

1948-2020 from International Monetary Fund, International Financial Statistics. Data Report "National Accounts", Series "Gross Fixed Capital Formation, Nominal" (accessible online at https://data.imf.org/).

Consumer prices (index, 1990=100)

1870-1891 from Historical Statistics of Switzerland. Nationale Buchhaltung. Q.1.a Nominales und reales Bruttoinlandprodukt (Bruttowertschöpfung) 1851-1913 (in Millionen Franken). Chain-linked.

1892 – 1996 from A. Taylor (2002), A Century of Purchasing–Power Parity, Review of Economics and Statistics, vol 84(1), pp. 139–150.

1997 – 2020 from International Monetary Fund World Economic Outlook (2021). Series "Inflation, average consumer prices" (accessible online at https://www.imf.org/external/pubs/ft/weo/2019/01/weodata/index.aspx). Chainlinked.

Narrow Money (millions CHF)

1870-1907 Historical Statistics of Switzerland. Geld und Kredit. Table O.3. Schätzung der Geldmenge in der Schweiz am Jahresende 1851-1910 – M1. Chain-linked

1908-1949 Historical Statistics of Switzerland. Geld und Kredit. Table O.4. Geldmengen am Jahresende 1907-1954 – M1. Chain-linked.

1950 – 1983 from Swiss National Bank, Historical time series: the monetary base and the M1, M2 and M3 monetary aggregates – M1 (accessible online at http://www.snb.ch/en/iabout/stat/statpub/histz/id/statpub_histz_actual). Chain-linked.

1984 – 2015 from IMF eLibrary. International Financial Statistics. Monetary Aggregates – M1.

2016 – 2020 Swiss National Bank. table selection, swiss national bank, monetary aggregates M1, M2 and M3, M1, December values.

Broad Money (millions CHF)

1880 – 1913 from Bordo, Michael, et al. "Is the crisis problem growing more severe?." Economic policy 16.32 (2001): 51-82. Series monagglc. Level/10^6.

1914 – 1949 from Historical Statistics of Switzerland. Geld und Kredit. Table O.4. Geldmengen am Jahresende 1907-1954 – Geldmengen – Liquide Aktiva des Publ. ohne Münzgeld. (accessible online at http://www.fsw.uzh.ch/histstat/main.php). Level.

1950 – 2004 from Swiss National Bank (2007), Historical Time Series n°1 "Monetary aggregates M1, M2 and M3". Table 2.1 "Official Data". Series M3. Levels.

2005-2020 from Swiss National Bank. table selection, swiss national bank, monetary aggregates M1, M2 and M3, M3. December values

Short–term interest rate (nominal, percent per year)

1870-1893 from Swiss National Bank (2007), Historical Time Series nº4: “Interest rates and yields”, Table 1.1a, Series “Discount rate, Zurich”. Level.

1894-1906 from Swiss National Bank (2007), Historical Time Series nº4: “Interest rates and yields”, Table 1.1a, Series “Lombard rate in Zurich”. Level.

1907-1968 from Swiss National Bank (2007), Historical Time Series nº4: “Interest rates and yields”, Table 1.1, Series “Discount rate”. Level.

1969–2017 from International Monetary Fund (2019), International Financial Statistics database (IFS). Section “Economic indicators”, Series “Money Market Rates” (accessible online at https://data.imf.org/). Level.

2018–2020 from Swiss National Bank, table selection, interest rates, yields and foreign exchange market, interest rates, money market rates, Switzerland, CHF, Call money rate (Tomorrow next), 1 day, Dec values.

Long–term interest rate (nominal, percent per year)

1880 – 1892 from Bordo, Michael D., Barry Eichengreen, Daniela Klingebiel, and Maria Soledad Martinez–Peria. 2001. “Is the Crisis Problem Growing More Severe?” Economic policy: A European Forum 32: 51–75.

1893 – 1898 from Flandreau and Zumer, 2004, The Making of Global Finance, Paris: OECD Development Centre.

1899 – 1912 from SNB. Historische Zeitreihen. Zinssätze und Renditen. Yield on 3.5% CHF bonds.

1913- 1914 from Homer, S. and R. Sylla (2005). A History of Interest Rates, Fourth Edition. Wiley Finance.

1915 from Historical Statistics of Switzerland; O. Geld und Kredit; O.18b. Diskontsätze, Lombardzinsfuss und Zinssätze für Kassenobligationen 1838-1926.

1916 - 1947 from Homer, S. and R. Sylla (2005). A History of Interest Rates, Fourth Edition. Wiley Finance.

1948 – 2020 from International Monetary Fund, International Financial Statistics (IFS). Data reports “Economic indicators (IFS)”, Section “Interest rates”, Series “Government Bonds, Percent per Anum”.

Current Account (millions CHF)

1921 – 1939 from E. Kellenberg (1939–1942), Kapitalexport und Zahlungsbilanz, Bern, A. Francke. Bd. I: S. 155, 245, 307; Bd. II: S. 87, 244f, 364f. Level.

1948 – 1976 from B. Mitchell (2007), International Historical Statistics: Europe 1750 – 2005, Pallgrave MacMillen, London. Level.

1977 – 2020 International Monetary Fund. International Financial Statistics. Supplementary Items, Current Account, Net (excluding exceptional financing), US Dollars. Turned into CHF with exchange rate from JST dataset (accessible online http://elibrary–data.imf.org/). Level.

Imports & Exports (millions CHF)

1885 – 1947 from B. Mitchell (2007), from B. Mitchell (2007), International Historical Statistics: Europe 1750 – 2005, Pallgrave MacMillen, London.

1948 – 2020 from International Monetary Fund, International Financial Statistics: archive, M10 2021, External Trade, Goods, Value of Exports, Free on Board (FOB), Domestic Currency; External trade, Imports, Goods, Value, Cost, Insurance freight, Domestic Currency.

Government Revenues (millions CHF)

1870 – 1912 from Mitchell, Brian (2013), International Historical Statistics: Europe, 1750 – 2010, Table: G6 Europe: Total Central Governmental Revenue and Main Tax Yields , Palgrave Macmillan, London. Level.

1913 – 1989 from H. Ritzmann–Blickenstorfer (1996), Historische Statistik der Schweiz, Chronos, Zürich.

1990 – 2020 from OECD (2021), OECD.Stat. Database “OECD national accounts statistics,” Dataset “General government accounts,” Table 12 “Government deficit/surplus, revenue, expenditure, and main aggregates,” Sector GS1311 “Central government,” Measure “National currency, current prices,” Series GTR “Total general government revenue” (accessible online at http://www.oecd–ilibrary.org/statistics).

Government Expenditure (millions CHF)

1871 – 1912 from Mitchell, Brian (2013), International Historical Statistics: Europe, 1750 – 2010, Table: G5 Europe: Total Central Governmental Expenditure , Palgrave Macmillan, London.

1913 – 1989 from H. Ritzmann–Blickenstorfer (1996), Historische Statistik der Schweiz, Chronos, Zürich.

1990 – 2020 from OECD (2021), OECD.Stat. Database “OECD national accounts statistics,” Dataset “General government accounts,” Table 12 “Government deficit/surplus, revenue, expenditure, and main aggregates,” Sector GS1311 “Central government,” Measure “National currency, current prices,” Series GTE “Total general government expenditure” (accessible online at http://www.oecd–ilibrary.org/statistics).

Public debt-to-GDP ratio

Note: until 1945 data is for central government debt only, data thereafter covers general government debt.

1880 – 1913 from Flandreau and Zumer, 2004, The Making of Global Finance, Paris: OECD Development Centre. Nominal debt divided by nominal GDP from the same dataset.

1914 – 1945 from Historical Statistics of Switzerland online (Universität Zürich, Forschungsstelle für Sozial– und Wirtschaftsgeschichte) – U.45. Ausgaben, budgetierter Finanzierungssaldo und Schulden von Bund, Kantone und Gemeinden 1910–2000 (in Mio. Fr., nominal)

(Zusammenstellung Sébastian Guex) (1) (Wirtschaftsgeschichte der Schweiz im 20. Jahrhundert). Column: Schulden des Bundes. Divided by GDP from JST dataset.

1946 – 1987 from Historical Statistics of Switzerland online (Universität Zürich, Forschungsstelle für Sozial– und Wirtschaftsgeschichte) – U.45. Ausgaben, budgetierter Finanzierungssaldo und Schulden von Bund, Kantone und Gemeinden 1910–2000 (in Mio. Fr., nominal) (Zusammenstellung Sébastian Guex) (1) (Wirtschaftsgeschichte der Schweiz im 20. Jahrhundert). Column: Totale Schulden. Divided by GDP from JST dataset.

1988 – 2020 International Monetary Fund. eLibrary. World Economic Outlook. Public debt, % of GDP.

USD exchange rate (local currency/USD)

1870 – 1914 from Denzel. M.A. (2010). Handbook of World Exchange Rates, 1590-1914. CHF / GBP exchange rate multiplied with GBP/USD exchange rate (see USD exchange rate of the U.K.).

1915 – 1939 from Lawrence H. Officer, "Exchange Rates Between the United States Dollar and Forty-one Currencies,", MeasuringWorth, 2015
http://www.measuringworth.com/exchangeglobal/

1940 – 1945 from Bordo, M. D. & Jonung, L. (1996) Monetary Regimes, Inflation And Monetary Reform: An Essay in Honor of Axel Leijonhufvud.

1946 – 1957 from Reinhart, C. M. & Rogoff, K. S. (2010). From financial crash to debt crisis. (Black) market exchange rate.

1958 – 2020 from International Financial Statistics. IMF eLibrary. Nominal Exchange Rate (domestic currency / US Dollar) (end of period).

Peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 1980 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1-2, all 3-6=0); broad peg category including crawling pegs.

1981 – 2020 from E. Ilzetzki, C. Reinhart & K. Rogoff (2017). The Country Chronologies to Exchange Rate Arrangements into the 21st Century: Will the Anchor Currency Hold? (De facto peg and de facto moving band = 1)

Strict peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 1980 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper

(accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1, all 2-6=0); strict peg category excluding crawling pegs.

1981 – 2020 from E. Ilzetzki, C. Reinhart & K. Rogoff (2017). The Country Chronologies to Exchange Rate Arrangements into the 21st Century: Will the Anchor Currency Hold? (De facto peg = 1)

Exogenous monetary policy shocks

Exogenous variation in the short-term interest rate from Òscar Jordà, Moritz Schularick, Alan M. Taylor and Felix Ward, 2019. “Global financial cycles and risk premiums”. IMF Economic Review, Volume 67 Number 1, pp. 109-150, which uses the identification strategy using local projection with instrumental variables laid out in Òscar Jordà, Moritz Schularick and Alan M. Taylor, 2020. “The effects of quasi-random monetary experiments”. Journal of Monetary Economics 112: 22-40.

House prices (nominal index, 1990=100)

1901 – 2012 from Knoll et al. (2014). No price like home: Global house prices, 1870-2012. Year average values.

2013 – 2020 from OECD housing prices database. Nominal series. Chain-linked.

Unemployment rate (percent)

1913 – 1975: from Historical Statistics of Switzerland online, F.18a. Stellensuchende und Arbeitslosenquote nach Geschlecht im Jahresmittel 1913-1995. Chainlinked.

1976 – 2020: from ILOSTAT (2021), Table: “Unemployment rate by sex and age (%) - Annual” based on the EU Labour force survey accessible online at: https://ilostat.ilo.org/data/.

Wages (index, 1990=100)

1870 - 1989 Research center for social and economic history. Historical Statistics of Switzerland online. Hourly Earnings of Male and Female Workers 1831-1995 (nominal wages). Chainlinked. Accessible online at http//www.fsw.uzh.ch/histstat/main.php

1990 - 2020 OECD. OECD statistics. Average annual wages. Current prices. Levels. Accessible online at http//stats.oecd.org/.

Credit Data (millions CHF)

Total loans to non-financial private sector

1870 – 1905 from Historical Statistics of Switzerland online. Table O.12 “Diskontobanken, Kantonalbanken und Übrige Emissionsbanken: Passiven, Aktiven und Gewinnrechnung 1826-1910“. Series “Hypotheken“, “ Kontokorrentdebitoren“, “Vorschüsse auf Termin“. Chain-linked.

1906 – 1972 from Swiss National Bank (2009), Historic Time Series: Section 5 “Banks in Switzerland“. Table 2 “All asset items – total for categories 1.00–5.00“, Series 6. and Swiss National Bank (2009), ibid. Table 2 “All asset items – total for categories 1.00–5.00“, Series 8. Level.

1973 – 2008 from Swiss National Bank (2009), ibid. Table 6 “Claim again domestic customers – by bank category“, Series 6. Level.

2009 – 2020 from Swiss National Bank, Banks in Switzerland. Table: Bank, Selected assets – annual, Parent company perpective (survey: comprehensive year-end statistics) - Series “Mortgage loans (total)” and Series “Amounts due from customers (total)”. Chain-linked.

Mortgage loans to non-financial private sector

1870 – 1905 from University of Zürich Research Center for Economic and Social History, Swiss Economic and Social History Online Database. Table O.12 “Diskontobanken, Kantonalbanken und _x001B_übrige Emissionsbanken: Passiven, aktiven und Gewinnrechnung 1826–1910“, Series “Hypotheken“ and Swiss National Bank (2009), ibid. Table 2 “All asset items – total for categories 1.00–5.00“, Series 8. Chain-linked.

1906 – 2008 from Swiss National Bank (2009) Historic Time Series: Section 5 “Banks in Switzerland“. Table 2 “All asset items – total for categories 1.00–5.00“, Series 8.

2009 – 2020 from Swiss National Bank, Banks in Switzerland. Table “Assets“, All Banks - Series “Mortgage loans“.

Total Loans to Households

1870 – 1976 growth rate calculated from Swiss National Bank (2009). Historic Time Series: Section 5 “Banks in Switzerland“. Table 2 “All asset items – total for categories 1.00–5.00“, Series 8.

1977 – 2020 residual of Total loans to non-financial private sector and Total Loans to Business.

Total Loans to Business

1870 – 1976 residual of Total loans to non-financial private sector and Total Loans to Households.

1977 – 2007 Swiss National Bank. “Historical Time Series 5.” 2009. “Banks in Switzerland.”, Table 21 “Sectoral breakdown of domestic assets”, Series “Non-Financial Corporations, Private legal entities”.

2008 – 2020 from Swiss National Bank growth rates from Banks in Switzerland. Series “Mortgage claims“ and Series “Amounts due from customers (total)”

Corporate Debt

1870–1976 bank loans to business from JST MacroHistory Database, building on Swiss National Bank. “Historical Time Series.” 2009. Section 5: “Banks in Switzerland”.

1977–1998 bank loans to business from Swiss National Bank, “Historical Time Series 5.” 2009. “Banks in Switzerland.”, Table 21 “Sectoral breakdown of domestic assets”, Series “Non-Financial Corporations, Private legal entities”.

1999–2011 OECD financial accounts data on total non-equity liabilities of the private non-financial business sector.

2012–2020 bank loans to business and capital market debt from “Credit to the non-financial sector” database of the Bank of International Settlements (accessible online at https: //www.bis.org/statistics/totcredit.htm).

Bank balance sheet ratios

(Ratios in %, underlying data in millions CHF)

Capital ratio

Capital ratio = Capital / Total Assets

Total assets (millions CHF)

1870 – 1905 University of Zürich Research Center for Economic and Social History, Swiss Economic and Social History Online Database, Table O.12 “Diskontobanken, Kantonalbanken und übrige Emissionsbanken: Passiven, aktiven und Gewinnrechnung 1826–1910“, Series “Bilanzsumme“. Chainlinked.

1906-2014 Swiss National Bank, Historische Zeitreihen, Die Banken in der Schweiz, Alle Passivpositionen – Total Bankengruppen 1.00–5.00, Series „Bilanzsumme“. Levels.

2015-2020 Swiss National Bank, Bilanzpositionen der Banken nach Bankengruppen – Jährlich, Total Inland und Ausland, Banken in der Schweiz, Aktiven – “Total Aktiven“. Chainlinked.

Capital (millions CHF)

1870 – 1905 University of Zürich Research Center for Economic and Social History, Swiss Economic and Social History Online Database, Table O.12 “Diskontobanken, Kantonalbanken und übrige Emissionsbanken: Passiven, aktiven und Gewinnrechnung 1826–1910“, Sum of “ Einbezahltes Kapital“, “Reserven“, “Verlustreserven“ and “Ausstehendes Kapital”. Chainlinked.

1906-2014 Swiss National Bank, Historische Zeitreihen, Die Banken in der Schweiz, Alle Passivpositionen – Total Bankengruppen 1.00–5.00, Series „Eigene Mittel – Total“. Levels.

2015-2020 Swiss National Bank, Bilanzpositionen der Banken nach Bankengruppen – Jährlich, Total Inland und Ausland, Banken in der Schweiz, Aktiven – “ Gesellschaftskapital+ Gesetzliche Kapitalreserven+ Freiwillige Gewinnreserven+ Gewinn/Verlustvortrag“. Chainlinked.

Loans-to-Deposits ratio

Loans-to-Deposits ratio = Loans / Deposits

Deposits (millions CHF)

1870 – 1905 University of Zürich Research Center for Economic and Social History, Swiss Economic and Social History Online Database, Table O.12 “Diskontobanken, Kantonalbanken und übrige Emissionsbanken: Passiven, aktiven und Gewinnrechnung 1826–1910“, Sum of “Check and Giro“, “Spareinlagen“ and “Obligationen, Anleihen und Depositen”. Chainlinked.

1906-1972 Swiss National Bank, Historische Zeitreihen, Die Banken in der Schweiz, Alle Passivpositionen – Total Bankengruppen 1.00–5.00, sum of “Verpflichtungen gegenüber Kunden“ – “In Spar- und Anlageform“, “Übrige auf Sicht“ and “Übrige auf Zeit“. Levels.

1973-2008 Swiss National Bank, Historische Zeitreihen, Die Banken in der Schweiz, Sheet 1, Series „Deposits by domestic customers, Total Bankengruppen 1.00–5.00“. Levels.

2009-2014 Swiss National Bank, Historische Zeitreihen, Die Banken in der Schweiz, Alle Passivpositionen – Total Bankengruppen 1.00–5.00, sum of Verpflichtungen gegenüber Kunden – “In Spar- und Anlageform“, “Übrige auf Sicht“ and “Übrige auf Zeit“. Chainlinked.

2015-2020 Swiss National Bank, Bilanzpositionen der Banken nach Bankengruppen – Jährlich, Total Inland und Ausland, Banken in der Schweiz, Aktiven – “Verpflichtungen aus Kundeneinlagen - Inland“. Chainlinked.

Loans (millions CHF)

1870 – 1905 from University of Zürich Research Center for Economic and Social History, Swiss Economic and Social History Online Database, Table O.12 “Diskontobanken, Kantonalbanken und übrige Emissionsbanken: Passiven, aktiven und Gewinnrechnung 1826–1910“, Sum of “Lombards and Reports “, “Kontokorrentdebitoren“, “Vorschüsse auf Termin” and “Hypotheken”. Chainlinked.

1907-1944 Swiss National Bank, Historische Zeitreihen, Die Banken in der Schweiz, Alle Aktivpositionen – Total Bankengruppen 1.00–5.00, sum of „Forderungen gegenüber Kunden“ and „Hypothekarforderungen“. Levels.

1945-2008 Swiss National Bank, Historische Zeitreihen, Die Banken in der Schweiz, Sheet 13, Asset items in Switzerland, total and in CHF, Total Bankengruppen 1.00–5.00, sum of “Forderungen gegenüber Kunden, davon CHF“ and “Hypothekarforderungen, davon CHF“. Levels.

2009-2014 Swiss National Bank, Historische Zeitreihen, Die Banken in der Schweiz, Alle Aktivpositionen – Total Bankengruppen 1.00–5.00, sum of “Forderungen gegenüber Kunden“ and “Hypothekarforderungen“. Chainlinked.

2015-2020 Swiss National Bank, Bilanzpositionen der Banken nach Bankengruppen – Jährlich, Total Inland und Ausland, Banken in der Schweiz, Aktiven – “Aktiven - Forderungen gegenüber Kunden - Inland“ and “Aktiven - Hypothekarforderungen - Inland“. Chainlinked.

Noncore ratio

Noncore ratio = (Total Assets - Capital - Deposits) / (Total Assets - Capital)

UNITED KINGDOM

(Data in billions GBP)

Macro Data

Population

1870 – 2008 from Angus Maddison Database (2008), ibid. Table 1 “Population levels, 1AD–2030AD” (accessible online at http://www.ggdc.net/maddison/Historical_Statistics/horizontal–file_02–2010.xls).

2009 – 2017 growth rates from International Monetary Fund (Aug, 2019), World Economic Outlook. Subject “People – population” (base year: 2008) (accessible at www.imf.org).

2018 – 2020 growth rates from International Monetary Fund (Oct, 2021), World Economic Outlook. Subject “People – population” (base year: 2008) (accessible at www.imf.org).

GDP (billions GBP)

1870 – 1947 from Hills, S, Thomas, R and Dimsdale, N (2015) "Three Centuries of Data - Version 2.2", Bank of England. Series: Composite estimate of nominal GDP at market prices – no break adjustment for Ireland. Data accessible online at http://www.bankofengland.co.uk/research/Pages/onebank/threecenturies.aspx. Level. (though the Hills et al. data are retropolated)

1948 – 2020 from Office for National Statistics – Quarterly National Accounts - Gross Domestic Product at market prices: Current price: Seasonally adjusted £m (Series: YBHA). Levels.

Real GDP per capita (PPP, 1990 Int$, Maddison)

1870 – 2010 from The Maddison-Project, http://www.ggdc.net/maddison/maddison-project/home.htm, 2013 version. http://www.ggdc.net/maddison/maddison-project/home.htm . Level.

2011 – 2020 from International Monetary Fund. World Economic Outlook. Series: Gross domestic product based on purchasing-power-parity (PPP) per capita GDP. Chain-linked.

Real GDP per capita (index, 2005=100)

1870 – 2004 from R. Barro & and J. Ursúa (2010), Macroeconomic Data Set, Harvard University, Cambridge MA (accessible online at http://scholar.harvard.edu/barro/publications/barro–ursua–macroeconomic–data).

2005 – 2020 growth rate calculated from World Bank (2021), Category “Economic policy and external debt,” Series “GDP per capita (constant 2010 US$) (accessible online at http://data.worldbank.org/indicator/NY.GDP.PCAP.KD).

Real consumption per capita (index, 2006=100)

1870 – 2009 from Robert C. Barro and José F. Ursúa (2010), Barro–Ursúa Macroeconomic Data. For respective sources see original data set: http://rbarro.com/data–sets/..

2010 – 2020 from World Bank household final consumption expenditure per capita (constant 2010 US$). Chain linked.

Investment-to-GDP ratio

1870 – 2009 from Hills, S, Thomas, R and Dimsdale, N (2015) "Three Centuries of Data - Version 2.2", Bank of England. Data accessible online at http://www.bankofengland.co.uk/research/Pages/onebank/threecenturies.aspx. Level. Series: Gross fixed capital formation. spliced using within-chain shares (to ensure additivity). divided by GDP from same dataset. Note: this source is regularly updated: check for revisions.

2010 – 2020 from International Monetary Fund, International Financial Statistics. Data Report "National Accounts", Series "Gross Fixed Capital Formation, Nominal" (accessible online at https://data.imf.org/) divided by GDP from same dataset.

Consumer prices (index, 1990=100)

1870 – 2016 from Hills, S, Thomas, R and Dimsdale, N. "A millenium of macroeconomic data – version 3.1", Bank of England. Series: Headline consumer price index (cpi). Level.

2017 - 2020 from Office for National Statistics (ONS), series "CPI annual rate 00: all items 2015=100" (accessible online at: https://www.ons.gov.uk/economy/inflationandpriceindices#timeseries). Chainlinked.

Narrow Money (billions GBP)

1870 – 2016 from Hills, S, Thomas, R and Dimsdale, N. "A millenium of macroeconomic data – version 3.1", Bank of England. Series: Coins and notes in circulation. Level.

2017- 2020 from Bank of England Database. Series: "LPWVQUX". Weekly year on year growth rate of total sterling notes and coin in circulation outside the Bank of England (in sterling millions) not seasonally adjusted. Use End-of-year values as growth rate.

Broad Money (billions GBP)

1870 – 2016 from Hills, S, Thomas, R and Dimsdale, N. "A millenium of macroeconomic data – version 3.1", Bank of England. Series: Spliced broad money measure based on M3/M4/M4x. Level.

2017 - 2020 from Bank of England Database. Browse Data by topic, Money and lending, M4 and M4 lending excluding intermediate OFCs, seasonally adjusted, Amounts outstanding, Aggregates excluding intermediate OFCs, Aggregate M4, quarterly (RPQB3DQ). Series name: Quarterly amounts outstanding of UK resident monetary financial institutions' sterling M4 liabilities to Private sector excluding intermediate OFCs (in sterling millions) seasonally adjusted

Short–term interest rate (nominal, percent per year)

1870 – 2020 from Measuring Worth, Short-Term Rate: Ordinary Funds, Contemporary Series. The Series emanates from the normal course of business of financial institutions, for example, the ordinary lending of funds by commercial banks for a short time period (available online at www.measuringworth.com/datasets/interestrates/).

Long–term interest rate (nominal, percent per year)

1870 – 2008 Hills, Sally, Ryland Thomas, and Nicholas Dimsdale (2010), "The UK recession in context — what do three centuries of data tell us?", Quarterly Bulletin of the Bank of England, 2010:4. Data accessible online at https://www.bankofengland.co.uk/quarterly-bulletin/2010/q4/the-uk-recession-in-context-what-do-three-centuries-of-data-tell-us Level.

2009 – 2020 from Bank of England. Statistical Database. Series code IUAALNPY. Series: End year average yield from British Government Securities, 20 year Nominal Par Yield. Level. (accessible online at www. bankofengland.co.uk)

Current Account (billions GBP)

1870 – 2007 from Hills, S, Thomas, R and Dimsdale, N (2015) "Three Centuries of Data - Version 2.2", Bank of England. Series: Current account deficit excluding all bullion flows. Data accessible online at http://www.bankofengland.co.uk/research/Pages/onebank/threecenturies.aspx. Level.

2008 – 2020 International Monetary Fund, World Economic Outlook. % of GDP * nominal GDP = Current Account.

Imports & Exports (billions GBP)

1870 – 1994 from Hills, S, Thomas, R and Dimsdale, N (2015) "Three Centuries of Data - Version 2.2", Bank of England. Series: Exports/Imports – Goods (f.o.b.). Data accessible online at http://www.bankofengland.co.uk/research/Pages/onebank/threecenturies.aspx. Level.

1995 – 2020 from International Monetary Fund, International Financial Statistics: archive, M10 2021, External Trade, Goods, Value of Exports, Free on Board (FOB), Domestic Currency; External trade, Imports, Goods, Value, Cost, Insurance freight, Domestic Currency.

Government Revenues (billions GBP)

1870 – 1999 from Bank of England. "A millenium of macroeconomic data – version 3.1" Central government expenditure.

2000 – 2020 from Office for National Statistics. Public sector finances. Table: CG: Total revenue: £m CPNSA Level.

Government Expenditure (billions GBP)

1870 – 1951 from B. Mitchell (1988), ibid.

1952 – 1999 from Office for National Statistics. Table "Public sector finances – supplementary Tables" (accessible online at http://www.ons.gov.uk/ons/index.html).

2000 – 2020 from Office for National Statistics. Public sector finances Table: CG: Total expenditure: £m CPNSA. Level.

Public debt-to-GDP ratio

1870 – 1979 from Abbas et al. 2010. A historical public debt database. Level.

1980 – 2020 from IMF World economic outlook. Public debt to GDP ratio.

USD exchange rate (local currency/USD)

1870 – 1945 from Lawrence H. Officer, "Exchange Rates Between the United States Dollar and Forty-one Currencies,", MeasuringWorth, 2015
http://www.measuringworth.com/exchangeglobal/

1946 - 1955 from Reinhart, C. M. & Rogoff, K. S. (2010). From financial crash to debt crisis. (Black) market exchange rate.

1956-2020 from International Financial Statistics. IMF eLibrary. Nominal Exchange Rate " Exchange Rates, National Currency Per U.S. Dollar, End of Period, Rate".

Peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1-2, all 3-6=0); broad peg category including crawling pegs.

2008 – 2020 extension of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1-2, all 3-6=0); broad peg category including crawling pegs.

Strict peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1, all 2-6=0); strict peg category excluding crawling pegs.

2008 – 2020 extension of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1, all 2-6=0); strict peg category excluding crawling pegs.

Exogenous monetary policy shocks

Exogenous variation in the short-term interest rate from Òscar Jordà, Moritz Schularick, Alan M. Taylor and Felix Ward, 2019. "Global financial cycles and risk premiums". IMF Economic Review, Volume 67 Number 1, pp. 109-150, which uses the identification strategy using local

projection with instrumental variables laid out in Òscar Jordà, Moritz Schularick and Alan M. Taylor, 2020. “The effects of quasi-random monetary experiments”. Journal of Monetary Economics 112: 22-40.

House prices (nominal index, 1990=100)

1899 – 1938 & 1946 - 2012 from Knoll et al. (2014). No price like home: Global house prices, 1870-2012. Year average values.

2013 - 2020 from OECD housing prices database. Nominal series. Chain-linked.

Unemployment rate (percent)

1870 – 1971: from Mitchell, Brian (2013), International Historical Statistics: Europe, 1750 – 2010, Table: B2 Europe: Unemployment, Palgrave Macmillan, London. Chainlinked.

1972 – 2020: from ILOSTAT (2021), Table: “Unemployment rate by sex and age (%) - Annual” based on the EU Labour force survey accessible online at: https://ilostat.ilo.org/data/.

Wages (index, 1990=100)

1870 - 2020 Gregory Clark “What Were the UK Earnings and Prices Then?” MeasuringWorth, 2019. UK Average Nominal Earnings. Levels. Accessible online at https//www.measuringworth.com/datasets/ukearncpi/

Credit Data (billions GBP)

Total loans to non-financial private sector

1880 – 1962 from David K. Sheppard (1971), The Growth and Role of UK Financial Institutions 1880–1962, Methuen & Co, London. Table(A) 2.4, p.150; Building Societies in Great Britain 1880-1967 (Assets and liabilities £ millions); total mortage plus Table (A) 3.4, p. 184. Seris: Loans and Advances and Other Accounts

1963 – 2020 calculated from Bank of England (2021). “Quarterly amounts outstanding of monetary financial institutions' sterling net lending to household sector (in sterling millions) seasonally adjusted” (Table LPQBC44) and “Quarterly amounts outstanding of monetary financial institutions' sterling net lending to unincorporated businesses and non-profit institutions serving households (in sterling millions) seasonally adjusted” (Table LPQBC58) and “Quarterly amounts outstanding of monetary financial institutions' sterling net lending to private non-financial corporations (in sterling millions) seasonally adjusted” Table (LPQBC57) (accessible online at http://www.bankofengland.co.uk/)

Mortgage loans to non-financial private sector

1880 – 1962 from David K. Sheppard (1971), The Growth and Role of UK Financial Institutions 1880–1962, Methuen & Co, London.

1963 – 2016 from Bank of England. A millenium of macroeconomic data – version 3.1. Secured M4 lending secured on dwellings adjusted for the impact of securitisations. Break-adjusted stock. www.bankofengland.co.uk/satistics/research-datasets

2017 - 2020 from Bank of England (2021). “Quarterly amounts outstanding of monetary financial institutions' sterling net secured lending to individuals (in sterling millions) seasonally adjusted” Table LPQBC55 (accessible online see above).

Total Loans to Households

1880 – 1950 growth rate calculated from Loans to Households Secured by Real Estate.

1951 – 2020 from Bank of England (2022). “Quarterly amounts outstanding of monetary financial institutions' sterling net lending to household sector (in sterling millions) seasonally adjusted” (Table LPQBC44) + “Quarterly amounts outstanding of monetary financial institutions' sterling net lending to unincorporated businesses and non-profit institutions serving households (in sterling millions) seasonally adjusted” Table (LPQBC58) (accessible online see above).

Total Loans to Business

1880 – 1950 residual of Total loans to non-financial private sector and Total Loans to Households.

1951 – 2020 Bank of England (2022). “Quarterly amounts outstanding of monetary financial institutions' sterling net lending to private non-financial corporations (in sterling millions) seasonally adjusted” (Table LPQBC57) (accessible online see above).

Corporate Debt

1880–1950 residual of total bank loans to non-financial private sector and total loans to households from JST MacroHistory Database.

1951–1956 Bank of England (2017); Table LPQBC57 (accessible online at http://www.bankofengland. co.uk/).

1957–1965 total non-equity liabilities of industrial and commercial companies from Roe (1971) “The financial interdependence of the UK economy 1957–66”, London: Chapman and Hall. 1966–1978 total non-equity liabilities of the private non-financial business sector from Pettigrew (1980) “National and sector balance sheets for the United Kingdom”, Economic Trends, November, pp. 82-100.

1979–1986 total non-equity liabilites of industrial and commercial companies from Sbano (2008) ”New historical data for assets and liabilities in the UK”, Economic & Labour Market Review, Vol. 2(4), pp. 40-46.

1987–2013 OECD financial accounts data on total non-equity liabilities of the private non-financial business sector.

2014–2020 bank loans to business and capital market debt from “Credit to the non-financial sector” database of the Bank of International Settlements (accessible online at https: //www.bis.org/statistics/totcredit.htm)

Bank balance sheet ratios

(Ratios in %, underlying data in billions GBP)

Capital ratio

Capital ratio = Capital / Total Assets

Total Assets (billions GBP)

1880-1945 D. Sheppard (1971), The Growth and Role of UK Financial Institutions 1880-1962, Table (A) 1.1, United Kingdom Banks combined Balance Sheets 1880-1966. Levels.

1946-1950 D. Sheppard (1971), The Growth and Role of UK Financial Institutions 1880-1962, Table (A) 1.1, United Kingdom Banks combined Balance Sheets 1880-1966. Chainlinked.

1951-1962 D. Sheppard (1971), The Growth and Role of UK Financial Institutions 1880-1962, Table (A) 1.1, United Kingdom Banks combined Balance Sheets 1880-1966, "Total Assets Liabilities", + Bank of England, Statististical Appendix of Quarterly Bulletins (various), Total Deposits and Current Accounts, series "Total Deposits" of British Overseas Banks, American Overseas, Foreign banks, Accepting houses and other banks.

1963-1969 Bank of England – Statistical Abstracts, Number 1, London 1970, Table 8(2) Deposit banks, series "Total current and deposit accounts" + Accepting houses, overseas banks and other banks "Total current and deposit accounts" + Capital series constructed as described below.

1970 Bank of England – Statistical Abstracts, Number 2, London 1975, Table 8/1, Banks in the United Kingdom: summary of banks other than deposit banks, series "Current and deposit accounts, all holders, total" + , Table 8/2, Deposit Banks: London Clearing Banks "Total Gross Deposits" + Capital series constructed as described below.

1971-1974 Bank of England – Statistical Abstracts, Number 2, London 1975, Banks in the United Kingdom: summary of all banks in the United Kingdom, series "Current and deposit accounts, all holders, Total"+ "Total Capital" series constructed as described below.

1975 Bank of England, Quarterly Bulletin 1976 Q2, Statistical Annex, Table 2/1 Banks in the United Kingdom – summary, December 10a, series "Total Assets/Liabililities", available online at http://www.bankofengland.co.uk/archive/Pages/digitalcontent/historicpubs/quarterlybulletins.aspx

1976 Bank of England, Quarterly Bulletin 1977 Q2, Statistical Annex, Table 2/1 Banks in the United Kingdom – summary, December 8, series "Total Assets/Liabililities", available online at http://www.bankofengland.co.uk/archive/Pages/digitalcontent/historicpubs/quarterlybulletins.aspx

1977-1996 Bank of England, Database, B Monetary financial institutions' balance sheets, income and expenditure, Table "Table 3.1 Other bank's balance sheet (discontinued)", "Total liabilities", series key ATFU.

1997-2009, Bank of England, Interactive database, series key RPATBJF: Annual amounts outstanding of UK resident banks' (excl. Central Bank) sterling and all foreign currency assets total (in sterling millions) not seasonally adjusted

2010-2020 Bank of England, Statistical Interactive Database; series key RPMB3ZN: Monthly amounts outstanding of UK resident monetary financial institutions' (excl. Central Bank) sterling and all foreign currency liabilities total (in sterling millions) not seasonally adjusted

Capital (billions GBP)

1880-1920 D. Sheppard (1971), The Growth and Role of UK Financial Institutions 1880-1962, Table (A) 1.1, United Kingdom Banks combined Balance Sheets 1880-1966, chainlinked.

1921-1966 D. Sheppard (1971), The Growth and Role of UK Financial Institutions 1880-1962, Table (A) 1.1, United Kingdom Banks combined Balance Sheets 1880-1966, adjusted capital series with factor for true capital from Mark Billings and Forrest Capie, Business History, Vol. 49, No. 2, March 2007, 139–162, Capital in British Banking, 1920–1970. Levels.

1963-1966 Bank of England, computed as share of capital relative to deposits from Sheppard (1971) multiplied with total deposits derived from Bank of England – Statistical Abstracts, Number 1, London 1970, Table 8(2) UK Banking sector: Analysis of current and deposit accounts: Deposit banks, series “Total” + Accepting houses, overseas banks and other banks series “Total”. Levels of the resulting capital ratio.

1967-1968 interpolated capital ratio. Plausibility check: Barclay’s capital ratios show very similar decline.

1969-1974 Committee of London Clearing Bankers, The London clearing banks: evidence by the Committee of London Clearing Bankers to the Committee to Review the Functioning of Financial Institutions”, November, 1977. Series based on Table 63 – Profit and Balance Sheet Statistics, “Ratio of Total Capital as percentage of deposits”. Multiplied with deposits from: 1970-1974 Bank of England – Statistical Abstracts, Number 2, London 1975, Banks in the United Kingdom: summary of all banks in the United Kingdom, series “Current and deposit accounts, all holders. Resulting capital ratio is chainlinked.

1975 Bank of England, Quarterly Bulletin 1976 Q2, Statistical Annex, Table 2/1 Banks in the United Kingdom – summary, December 10a, series “Capital and other funds”, available online at http://www.bankofengland.co.uk/archive/Pages/digitalcontent/historicpubs/quarterlybulletins.aspx

1976 Bank of England, Quarterly Bulletin 1977 Q2, Statistical Annex, Bank of England, Table 2/1 Banks in the United Kingdom – summary, December 8, series “Capital and other funds”, available online at

http://www.bankofengland.co.uk/archive/Pages/digitalcontent/historicpubs/quarterlybulletins.aspx.

1977-1979 Bank of England, Table 3.1 Other Banks' Balance Sheet (discontinued), Sterling liabilities, series „Capital and other funds" + other currency liabilities „Capital and other funds". Chainlinked.

1980-2020 Bank of England, Financial Policy Core Indicators, CCB core indicators, Spreadsheet 11, Leverage Ratio, Simple. Available online https://www.bankofengland.co.uk/financial-stability. Levels.

Loans-to-Deposits ratio

Loans-to-Deposits ratio = Loans / Deposits

Deposits (billions GBP)

1880-1945 D. Sheppard (1971), The Growth and Role of UK Financial Institutions 1880-1962, Table (A) 1.1, United Kingdom Banks combined Balance Sheets 1880-1966. "Deposits and other accounts". Chainlinked.

1945-1962 D. Sheppard (1971), The Growth and Role of UK Financial Institutions 1880-1962, Table (A) 1.1, United Kingdom Banks combined Balance Sheets 1880-1966. Chain-linked.

1963-1969 Bank of England – Statistical Abstracts, Number 1, London 1970, Table 8-2, Deposit Banks, series „Total current and deposit accounts" minus series „Total current and deposit accounts - Overseas residents" + Accepting houses, overseas banks and other banks, series „Total current and deposit accounts" less series „Total current and deposit accounts - Overseas residents"

1970 Bank of England – Statistical Abstracts, Number 1, London 1970, Table 8-2, series "Net Deposits"+Table 8-1, Summary of banks other than deposit banks, ", series „Current and deposit accounts – Other UK residents (Sterling+other currencies)

1971-1974 Bank of England – Statistical Abstracts, Number 2, London 1975, Table 8/1 "2 Banks in the United Kingdom: summary of all banks in the United Kingdom", series „Current and deposit accounts – Other UK residents (Sterling+other currencies)

1975 Bank of England, Quarterly Bulletin 1976 Q2, Statistical Annex, Table 2/1 Banks in the United Kingdom – summary, December 10a, series "Sterling other UK residents deposits (Sight+Time)"+"Other currencies – other UK residents deposits – sight", available online at http://www.bankofengland.co.uk/archive/Pages/digitalcontent/historicpubs/quarterlybulletins.aspx

1976 Bank of England, Quarterly Bulletin 1977 Q2, Statistical Annex, Table 2/1 Banks in the United Kingdom – summary, December 8, series “Sterling other UK residents deposits (Sight+Time)”+”Other currencies – other UK residents deposits – sight”, available online at http://www.bankofengland.co.uk/archive/Pages/digitalcontent/historicpubs/quarterlybulletins.aspx

1977-1996 Bank of England, Database, B Monetary financial institutions' balance sheets, income and expenditure, Table 3.1 Other Banks’ Balance Sheet (discontinued), series “ATFE”+”ATFI”+”ATFP”.

1997-2009 Bank of England, Interactive database, series RPATBFE+ RPATBFJ+ RPAVYDV, available online (http://www.bankofengland.co.uk/boeapps/iadb/newintermed.asp)

2010-2020 Bank of England, Interactive database series RPMB3NM+RPMB3QM, available online (http://www.bankofengland.co.uk/boeapps/iadb/newintermed.asp)

Loans (billions GBP)

1880-1962 D. Sheppard (1971), The Growth and Role of UK Financial Institutions 1880-1962, Table (A) 1.1, United Kingdom Banks combined Balance Sheets 1880-1966. “Advances”. Levels.

1963-1969 Bank of England, Statistical Abstracts, Number 1, London 1970, Table 8-2, Deposit Banks, series „Advances UK residents“ + „Advances UK companies“ + Accepting houses, overseas banks and other banks, series „Advances UK residents“ + „Advances UK companies“

1970 Bank of England, Statistical Abstracts, Number 1, London 1970, Table 8-2, series Deposit banks “Advances”+Table 8-1, Summary of banks other than deposit banks, series „Advances UK residents (Sterling+other currencies)

1971-1974 Bank of England, Statistical Abstracts, Number 2, London 1975, Table 8/1 “2 Banks in the United Kingdom: summary of all banks in the United Kingdom“, series „Advances UK residents in Sterling”+” Advances UK residents other currencies”. Levels.

1975-1976 Bank of England, Quarterly Bulletin 1976 Q2, Statistical Annex, Table 2/1 Banks in the United Kingdom – summary, December 10a, series “Advances - Sterling, UK private sector”+” Market Loans and advances -other currency assets - UK private sector” available online at http://www.bankofengland.co.uk/archive/Pages/digitalcontent/historicpubs/quarterlybulletins.aspx. Levels.

1977-1996 Bank of England, Statistics, Table 3.1 Other Banks’ Balance Sheet (discontinued), series “ATGM”+”ATHB”.

1997-2009 Bank of England, Interactive database, series RPATBHV, available online (http://www.bankofengland.co.uk/boeapps/iadb/newintermed.asp).

2010-2020 Bank of England, Interactive database series RPMB3OP, available online (http://www.bankofengland.co.uk/boeapps/iadb/newintermed.asp)
Monthly amounts outstanding of UK resident monetary financial institutions' (excl. Central Bank) sterling loans (excluding reverse repos and commerical paper) to private sector (in sterling millions) not seasonally adjusted.

Noncore ratio

Noncore ratio = (Total Assets – Capital - Deposits) / (Total Assets - Capital)

1880-1945 Not computed: No distinction between deposits and other liabilities in balance sheet data ("Deposits and other accounts" item in D. Sheppard (1971), The Growth and Role of UK Financial Institutions 1880-1962, Table (A) 1.1, United Kingdom Banks combined Balance Sheets 1880-1966).

UNITED STATES OF AMERICA

(Data in billions USD)

Macro Data

Population

1870 – 2008 from Angus Maddison Database (2008), ibid. Table 1 "Population levels, 1AD–2030AD" (accessible online at http://www.ggdc.net/maddison/Historical_Statistics/horizontal–file_02–2010.xls).

2009 – 2020 growth rates from International Monetary Fund, World Economic Outlook. Subject "People – population" (base year: 2008) (accessible at www.imf.org).

GDP (billions USD)

1870 – 1928 from Louis Johnston and Samuel H. Williamson, "What Was the U.S. GDP Then?" MeasuringWorth, 2015. Series: Nominal GDP. Online: http://www.measuringworth.com/datasets/usgdp/result.php. Levels.

1929 – 2020 from Bureau of Economic Analysis (2021), GDP and the National Income and Product Account (NIPA) Historical Tables, Table 1.1.5. Gross Domestic Product (A) (Q) (accessible online at https://www.bea.gov/iTable/index_nipa.cfm). Levels.

Real GDP per capita (PPP, 1990 Int$, Maddison)

1870 – 2010 from The Maddison-Project, http://www.ggdc.net/maddison/maddison-project/home.htm, 2013 version. http://www.ggdc.net/maddison/maddison-project/home.htm . Level.

2011 – 2020 from International Monetary Fund. World Economic Outlook. Series: Gross domestic product based on purchasing-power-parity (PPP) per capita GDP. Chain-linked.

Real GDP per capita (index, 2005=100)

1870 – 2004 from R. Barro & and J. Ursúa (2010), Macroeconomic Data Set, Harvard University, Cambridge MA (accessible online at http://scholar.harvard.edu/barro/publications/barro–ursua–macroeconomic–data).

2005 – 2020 growth rate calculated from World Bank (2021), Category "Economic policy and external debt," Series "GDP per capita (constant 2010 US$) (accessible online at http://data.worldbank.org/indicator/NY.GDP.PCAP.KD).

Real consumption per capita (index, 2006=100)

1870 – 2009 from Robert C. Barro and José F. Ursúa (2010), Barro–Ursúa Macroeconomic Data. For respective sources see original data set: http://rbarro.com/data–sets/..

2010 – 2020 from World Bank household final consumption expenditure per capita (constant 2010 US$). Chain linked.

Investment-to-GDP ratio

1870 – 1945 data from Mitchell, Brian (2007) International Historical Statistics: The Americas 1750 – 2005, Palgrave, London.

1946 – 2020 data from International Monetary Fund, International Financial Statistics. Data Report "National Accounts", Series "Gross Domestic Capital Formation, Nominal" (accessible online at https://data.imf.org/).

Consumer prices (index, 1990=100)

1870 – 1946: Peter H. Lindert and Richard Sutch, "Consumer price indexes, for all items: 1774–2003." Table Cc1-2 and other tables in Historical Statistics of the United States, Earliest Times to the Present: Millennial Edition. Chainlinked.

1947 – 1977: from FRED dataset. Consumer Price Index for All Urban Consumers: All Items (CPIAUCSL). Annual average of monthly observations. Accessible online here: https://fred.stlouisfed.org/series/CPIAUCSL. Chainlinked.

1978 – 2020: from Bureau of Labor Statistics (2021), CPI index, all items, year average (CPI-U-RS, All items; accessible online at https://www.bls.gov/cpi/research-series/home.htm).

Narrow Money (billions USD)

1870 – 1917 monetary base from Rousseau and Wachtel (1998), Financial Intermediation and Economic Performance: Historical Evidence from Five Industrialized Countries.

1918 – 2019 monetary base from the Federal Reserve Bank of St. Louis, Adjusted Monetary Base (available at http://research.stlouisfed.org/fred2/data/AMBSL.txt).

2020 from Federal Reserve Bank of St. Louis, Monetary Base, Total, not seasonally adjusted.

Broad Money (billions USD)

1870 – 1947 M3 from Milton Friedman, Anna J. Schwartz and Robert Rasche listed in Anderson, R.G. (2003) Some Tables of Historical U.S. Currency and Monetary Aggregates Data. Table 3 M3. Online: https://research.stlouisfed.org/wp/2003/2003-006.pdf . Levels.

1948-1959 constructed by St. Louis Fed. Only available online: https://research.stlouisfed.org/aggreg/ . Home -> monetary indices. “M2 and M3 data” excel file. Level.

1960-2020 from St. Louis Fed. M3 for the United States. FRED economic data – Releases - Main economic indicators. Online: https://research.stlouisfed.org/fred2/series/MABMM301USA189S# . Level.

Short–term interest rate (nominal, percent per year)

1870 – 2020 from Lawrence H. Officer, "What Was the Interest Rate Then?" MeasuringWorth, Lawrence H. Officer, "What Was the Interest Rate Then?" MeasuringWorth. Short-Term Rate: Surplus Funds, Contemporary Series. The Series involves the short-term lending or borrowing of surplus funds, that is, funds that are considered excess by the lending institution and are required for immediate temporary use by the borrowing entity. (available online at www.measuringworth.com/datasets/interestrates/).

Long–term interest rate (nominal, percent per year)

1870 from Schmelzing, P. (2020). Eight centuries of global real interest rates, R-G, and the ‘suprasecular’ decline, 1311-2018. Bank of England Staff Working Paper No. 845.

1871 – 1939 from Shiller, R. (2000). Irrational Exuberance. 10-year government bond rate. December values. Online Data. http://www.econ.yale.edu/~shiller/data.htm

1940 – 1953 from Schmelzing, P. (2020). Eight centuries of global real interest rates, R-G, and the ‘suprasecular’ decline, 1311-2018. Bank of England Staff Working Paper No. 845.

1954 – 2020 from International Monetary Fund, International Financial Statistics (IFS). Data reports “Economic indicators (IFS)”, Section “Interest rates”, Series “Government Bonds, percent per Anum”.

Current Account (billions USD)

1870 – 1945 from M. Jones & M. Obstfeld (1997), Saving, Investment, and Gold: A Reassessment of Historical Current Account Data, NBER Working Paper No. 6103, MIT Press, Cambridge MA (accessible online at http://www.nber.org/databases/jones–obstfeld/).

1946 – 1969 from B. Mitchell (2007), International Historical Statistics: The Americas 1750 – 2005, Pallgrave MacMillen, London.

1970 – 2020 International Monetary Fund, International Financial Statistics. Supplementary Items, Current Account, Net (excluding exceptional financing), US Dollars (accessible online https://data.imf.org/).

Imports & Exports (billions USD)

1870 – 1949 B. Mitchell (2007), International Historical Statistics: The Americas 1750 – 2005, Pallgrave MacMillen, London.

1950 – 2020 from International Monetary Fund, International Financial Statistics: National Accounts, Expenditure, Gross Domestic Product, External Balance of Goods and Services, Exports/Imports of Goods and Services, Nominal, Domestic Currency.

Government Revenues (billions USD)

1870 – 1900 from Bureau of the Census (1949), Historical Statistics of the United States 1789 – 1945, U.S. Department of Commerce, Washington. Series P 89–98. "Federal Government Finances – Treasury Receipts, And Surplus Or Deficit: 1789 to 1945", P 89 Total receipts.

1901 – 2020 from Office of Management and Budget (2021), Historical Tables. Table 1.1 "Summary of receipts, outlays, and surpluses or deficits (-): 1789 – 2024", Series "Total receipts"

Government Expenditure (billions USD)

1870 – 1900 from Bureau of the Census (1949), Historical Statistics of the United States 1789 – 1945, U.S. Department of Commerce, Washington. Series P 99–108. "Federal Government Finances – Treasury Expenditures: 1789 to 1945", P 99 Total expenditures, excluding debt retirements.

1901 – 2020 from Office of Management and Budget (2021), Historical Tables. Table 1.1 "Summary of receipts, outlays, and surpluses or deficits (-): 1789 – 2024", Series "Total outlays"

Public debt-to-GDP ratio

1870 – 1945 from Bureau of the Census (1949), Historical Statistics of the United States 1789 – 1945, U.S. Department of Commerce, Washington. Series P 132–143. "Federal Government Finances – Public Debt: 1791 to 1945", Principal or public debt outstanding, Total gross debt, amount. GDP used is the one from the Macropanel. Levels

1946 – 2020 from Office of Management Budget. Table 7.1 "Federal debt at the end of year" (accessible online at http://www.whitehouse.gov/omb/budget/historicals).

USD exchange rate (local currency/USD)

USD/USD exchange rate = 1 at all times

Peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper

(accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1-2, all 3-6=0); broad peg category including crawling pegs.

2008 – 2020 extension of of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1-2, all 3-6=0); broad peg category including crawling pegs.

Strict peg dummy

1870 – 1939 from M. Obstfeld & A. Taylor (2003), Sovereign Risk, Credibility and the Gold Standard: 1870–1913 Versus 1925–31, Economic Journal, 113, p1–35.

1940 – 2007 from unpublished, revised version of E. Ilzetzki, C. Reinhart & K. Rogoff (2004), Exchange Rate Arrangements Entering the 21st Centry: Which anchor will hold?, Working Paper (accessible online at http://personal.lse.ac.uk/ilzetzki/IRRBack.htm). (1=1, all 2-6=0); strict peg category excluding crawling pegs.

2008 – 2020 extension of of E. Ilzetzki, C. Reinhart & K. Rogoff (2008) exchange regime coarse classification scheme (1=1, all 2-6=0); strict peg category excluding crawling pegs.

Exogenous monetary policy shocks

Exogenous variation in the short-term interest rate from Òscar Jordà, Moritz Schularick, Alan M. Taylor and Felix Ward, 2019. “Global financial cycles and risk premiums”. IMF Economic Review, Volume 67 Number 1, pp. 109-150, which uses the identification strategy using local projection with instrumental variables laid out in Òscar Jordà, Moritz Schularick and Alan M. Taylor, 2020. “The effects of quasi-random monetary experiments”. *Journal of Monetary Economics* 112: 22-40.

House prices (nominal index, 1990=100)

1890 – 2012 from Knoll et al. (2014). No price like home: Global house prices, 1870-2012. Year average values.

2013 – 2020 from OECD housing prices database. Nominal series. Chain-linked.

Unemployment rate (percent)

1890 – 1946 from Mitchell, Brian (2013), International Historical Statistics The Americas, 1750 – 2010, Table B2 North America Unemployment, Palgrave Macmillan, London.

1947 – 2020 from ILOSTAT (2021), Table “Unemployment rate by sex and age” based on the Current Population Survey accessible online at https//ilostat.ilo.org/data/.

Wages (index, 1990=100)

1870 - 1889 International Historical Statistics. Americas Labour Force – Money/Wages in Industry. Average annual earnings of non-farm employees. Chainlinked.

1890 - 1989 International Historical Statistics. Americas Labour Force – Money/Wages in Industry. Average hourly earnings in manufacturing. Chainlinked.

1948 - 1989 International Monetary Fund International Financial Statistics database (IFS). Labor Markets, Manufacturing Wage Rates, Index. Accessible online at http//data.imf.org/. Chainlinked.

1990 - 2020 OECD. OECD statistics. Average annual wages. Current prices. Levels. Accessible online at http//stats.oecd.org/.

Credit Data (billions USD)

Total loans to non-financial private sector (All Depository Institutions)

1880 – 1912 calculated from Fraser Federal Reserve Archive (1959), ibid. Table A–1, Series "Loans Total" (accessible online see above) and United States Census Bureau, ibid Table "Amount of resources and liabilities of savings banks", Series "Loans on Real Estate" (accessible online see above).

1913 – 1938 calculated from Fraser Federal Reserve Archive (1959), ibid. Table A–1, Series "Loans Total" (accessible online see above) and R. Sutch & S.B. Carter (2006), ibid. Table Cj389–397 "Savings and loan associations–number, assets, liabilities: 1922–1989", Series Cj391 "Mortgage loans", (accessible online at hsus.cambridge.org).

1939 – 1945 calculated from Fraser Federal Reserve Archive (1959), ibid. Table A–1, Series "Loans Total", Table A1–a, Series "Total loans" subtracted by "Loans for purchasing or carrying securities" (accessible online see above).

1945 – 2017 calculated from Federal Reserve Bank of the United States (2014), Flow and Funds Z1. Total loans of US-chartered depository institutions and credit unions to domestic households and the non-financial business sector. Data include GSE and private mortgage backed securities held on balance sheet.

2017 – 2020 calculated from Federal Reserve Bank of the United States (2022), Flow and Funds Z1. Total loans of US-chartered depository institutions and credit unions. Data include GSE and private mortgage backed securities held on balance sheet (accessible under: https://www.federalreserve.gov/releases/z1/default.htm). Steps: 1) Download csv files, 2) go to L.111 search first series codes and in L.114 search for second series. Series codes are the numbers indicated below. Only use the numbers for searching.

US-chartered depository institutions: FL763065005.A FL763066000.A FL763068005.A FL763063663.A FL763063673.A FL763063653.AFL763063693.A LM763061503.A FL763061403.A FL763061603.A FL763061803.A; Credit unions: FL473068005.A FL473066000.A FL473065100.A FL473061705.A

Mortgage loans to non-financial private sector (All Depository Institutions)

1880 – 1895 growth rate calculated from United States Census Bureau, ibid. Table "Amount of resources and liabilities of savings banks", Series "Loans on Real Estate" (accessible online see above).

1896 – 1912 calculated from Fraser Federal Reserve Archive (1959), ibid. Table A–1, Series "Loans Real Estate" (see above) and United States Census Bureau, ibid. Table "Amount of resources and liabilities of savings banks", Series "Loans on Real Estate" (accessible online see above).

1913 – 1945 calculated from Fraser Federal Reserve Archive (1959), ibid. Table A–1, Series "Loans Real Estate" (see above) and R. Sutch & S.B. Carter (2006),ibid. Table Cj389–397, Series Cj391 (accessible online see above).

1945 – 2016 calculated from Federal Reserve Bank of the United States (2014), Flow and Funds Z1. Total loans of US-chartered depository institutions and credit unions to household and non-financial business secured by real estate. Data include GSE and private mortgage backed securities held on balance sheet.

2017 – 2020 calculated from Federal Reserve Bank of the United States (2022), Flow and Funds Z1. Total loans of US-chartered depository institutions and credit unions. Data include GSE and private mortgage backed securities held on balance sheet (accessible under: https://www.federalreserve.gov/releases/z1/default.htm). Steps: 1) Download csv files, 2) go to L.111 search first series codes and in L.114 search for second series. Series codes are the numbers indicated below. Only use the numbers for searching.

US-chartered depository institutions: FL763065005.A FL763063663.A FL763063673.A FL763063653.A FL763063693.A LM763061503.A FL763061403.A FL763061603.A FL763061803.A; Credit unions: FL473065100.A FL473061705.A

Total Loans to Households (All Depository Institutions)

Sum of Loans to Households Secured by Real Estate and Other Loans to Households.

Loans to Households Secured by Real Estate (All Depository Institutions)

1880 – 1938 growth rate calculated from Mortgage loans to non-financial private sector (All Depository Institutions).

1939 – 1945 growth rate calculated from Fraser Federal Reserve Archive (1959), ibid. Table A–1, Series “Real estate on residential property” (accessible online see above).

1945 – 2017 calculated from Federal Reserve Bank of the United States (2014), Flow and Funds Z1. Total loans of US-chartered depository institutions and credit unions. Data include GSE and private mortgage backed securities held on balance sheet.

2017 – 2020 calculated from Federal Reserve Bank of the United States (2022), Flow and Funds Z1. Total loans of US-chartered depository institutions and credit unions. Data include GSE and private mortgage backed securities held on balance sheet (accessible under: https://www.federalreserve.gov/releases/z1/default.htm). Steps: 1) Download csv files, 2) go to csv and in L.218 search for first series code, in L.219 search for second series code, in L.111 search for series codes 3-6 and in L.114 search for series codes 7 and 8. Series codes are the numbers indicated below. Only use the numbers for searching.

US-chartered depository institutions: FL763065105.A FL763065403.A FL763061603.A FL763061803.A FL763063663.A FL763063673.A; Credit unions: FL473065100.A FL473061705.A

Other Loans to Households (All Depository Institutions)

1945 – 2017 calculated from Federal Reserve Bank of the United States (2014), Flow and Funds Z1. Total loans of US-chartered depository institutions and credit unions. Data include GSE and private mortgage backed securities held on balance sheet.

2017 – 2020 calculated from Federal Reserve Bank of the United States (2022), Flow and Funds Z1. Total loans of US-chartered depository institutions and credit unions. Data include

GSE and private mortgage backed securities held on balance sheet (accessible under: https://www.federalreserve.gov/releases/z1/default.htm). Steps: 1) Download csv files, 2) go to L.111 search first series codes and in L.114 search for second series. Series codes are the numbers indicated below. Only use the numbers for searching.

US-chartered depository institutions: FL763066000.A; Credit unions: FL473066000.A

Total Loans to Business (All Depository Institutions)

Residual of Total loans to non-financial private sector and Total Loans to Households (All Depository Institutions).

Corporate debt

1916 – 1938 total corporate debt less interbank debt from James, John A. and Richard Sylla (2006), "Debt and Flow of Funds" in "Historical Statistics of the United States" edited by Susan B. Carter and Scott Sigmund Gartner and Michael R. Haines and Alan L. Olmstead and Richard Sutch and Gavin Wright.

1945–2020 total loans, bonds and miscellaneous liabilities of non-financial corporate businesses and total loans and miscellaneous liabilities of non-financial non-corporate businesses from Board of Governors of the Federal Reserve System (2021) "Financial Accounts of the United States".

Bank balance sheet ratios

(Ratios in %, underlying data in billions USD)

Capital ratio

Capital ratio = Capital / Total Assets

Total Assets (billions USD)

1870-1949 Historical Statistics of the United States, Table Cj265-272. Commercial banks-liabilities: 1834-1980, sum of "Deposits", "Capital" and "Other Liabilities". Chainlinked.

1950-2017 FDIC, FDIC insured commercial banks, series "Total Liabilities and Equity Capital", available online (https://www5.fdic.gov/hsob/HSOBRpt.asp). Levels.

2018-2020 FDIC, Assets and Liabilities of FDIC-Insured Commercial Banks and Savings Institutions, series "Total liabilities and capital", available online (https://www.fdic.gov/analysis/quarterly-banking-profile/) , "Balance Sheet", chainlinked.

Capital (billions USD)

1870-1949 Historical Statistics of the United States, Table Cj265-272. Commercial banks-liabilities: 1834-1980, series “Capital Accounts”. Chainlinked.

1950-1983 FDIC, FDIC insured commercial banks, series “Total Equity Capital”, available online (https://www5.fdic.gov/hsob/HSOBRpt.asp). Chainlinked (difference) ratio.

1984-2017 FDIC, Assets and Liabilities of FDIC-Insured Commercial Banks and Savings Institutions, capital ratio computed, using series “Tier 1 leverage capital (PCA definition)” and “Total Liablities and Equity Capital”. Capital computed using “Total Assets” series (above) and level of capital ratio. (https://www.fdic.gov/bank/analytical/qbp/).

2018-2020 FDIC, Assets and Liabilities of FDIC-Insured Commercial Banks and Savings Institutions, series “Tier 1 leverage capital (PCA definition)”, available online (https://www.fdic.gov/analysis/quarterly-banking-profile/) , “Balance Sheet”, chainlinked.

Loans-to-Deposits ratio

Loans-to-Deposits ratio = Loans / Deposits

Deposits (billions USD)

1870-1949 Historical Statistics of the United States, Table Cj265-272. Commercial banks-liabilities: 1834-1980, series “Total Deposits”. Chainlinked.

1950-2017 FDIC, FDIC insured commercial banks, series “Total Deposits”, available online (https://www5.fdic.gov/hsob/HSOBRpt.asp). Levels.

2018-2020 FDIC, Assets and Liabilities of FDIC-Insured Commercial Banks and Savings Institutions, series “Deposits”, available online (https://www.fdic.gov/analysis/quarterly-banking-profile/) , “Balance Sheet”, chainlinked.

Loans (billions USD)

1870-1949 Historical Statistics of the United States, Table Cj265-272. Commercial banks-liabilities: 1834-1980, series “Total Loans”. Chainlinked.

1950-2020 FDIC, FDIC insured commercial banks, series “Net Loans and Leases”, available online (https://www5.fdic.gov/hsob/HSOBRpt.asp). Levels.

2018-2020 FDIC, Assets and Liabilities of FDIC-Insured Commercial Banks and Savings Institutions, series “Net loans and leases”, available online (https://www.fdic.gov/analysis/quarterly-banking-profile/) , “Balance Sheet”, chainlinked.

Noncore ratios

Noncore ratio = (Total Assets - Capital - Deposits) / (Total Assets - Capital)