

CITATIONS AND BIBLIOGRAPHY FOR *HOW COUNTRIES GO BROKE: THE BIG CYCLE*

BY RAY DALIO

The following pages provide more detailed attributions of sources used in the book. References are made via page number and opening words of relevant text.

NOTE ON DATA SOURCES

In addition to the specific cases, which we call out in the following pages, the internal analyses shown in *How Countries Go Broke* utilize data and information from public, private and internal sources.

A partial list of notable data sources used includes: Association for Real Estate Securitization in Japan (ARES), Bank of England, BCA, Bloomberg Economics, Bloomberg Finance L.P., Bond Radar, Candeal, CEIC Data Company Ltd., Ceras Analytics, China Bull Research, Clarus Financial Technology, Clio Infra, CLS Processing Solutions, Conference Board of Canada, Congressional Budget Office, Consensus Economics Inc., DTCC Data Repository, Ecoanalitica, Empirical Research Partners, Energy Aspects Corp, Entis (Axioma Qontigo Simcorp), Enverus, EPFR Global, Eurasia Group, Evercore ISI, FactSet Research Systems, Fastmarkets Global Limited, Federal Reserve, The Financial Times Limited, Finaeon, Inc., FINRA, Gapminder, GaveKal Research Ltd., GlobalSource Partners, Global SWF, Harvard Business Review, Haver Analytics, Inc., Institutional Shareholder Services (ISS), The Investment Funds Institute of Canada, ICE Derived Data (UK), Investment Company Institute, International Institute of Finance, Joint Committee on Taxation, JP Morgan, JTSA Advisors, LSEG Data and Analytics, Maddison Historical Statistics, MarketAxess, Metals Focus Ltd, MSCI, Inc., National Bureau of Economic Research, Neudata, Organisation for Economic Cooperation and Development, Our World in Data, Penn Warton Budget Model, Pensions & Investments Research Center, Pitchbook, Political Alpha, Renaissance Capital Research, Rhodium Group, RP Data, Robinson Research, Rystad Energy, S&P Global Market Intelligence, Sentix GmbH, SGH Macro, Shanghai Metals Market, Smart Insider Ltd., Smithsonian Institution, Sustainalytics, Swaps Monitor, Tradeweb, United Nations, US Department of Commerce, Varieties of Democracy (V-DEM), Visible Alpha, Vote View, Wells Bay, Wind Financial Information LLC, With Intelligence, Wood Mackenzie Limited, World Bank Open Data, World Bureau of Metal Statistics, World Economic Forum, World Inequality Database, and YieldBook.

NOTES AND CITATIONS

- 4 **As in my other books:** Please see my books, *Principles for Navigating Big Debt Crises* and *Principles for Dealing with the Changing World Order* (Part 1: Chapter 3 and 4), for a comprehensive explanation of debt and currency cycles.

CHAPTER 2: THE MECHANICS IN WORDS AND CONCEPTS

- 36 **I will go into these forces:** Please see my book *Principles for Dealing with the Changing World Order* (Part 1: Chapters 1 and 2), for discussion of the five big forces, and other determinants, that drive change.
- 60 **If you want to learn more:** Please see my book, *Principles for Navigating Big Debt* (Part 1: 36–39), for a more in-depth description of beautiful deleveraging.
- 63 **For the case studies:** Please see my book, *Principles for Navigating Big Debt* (Part 2), for a breakdown of the German Debt Crisis and Hyperinflation (1918-1924), US Debt Crisis and Adjustment (1928-1937), and US debt crisis and adjustment (2007-2011).
- 63 **They were covered extensively:** Please see my book, *Principles for Dealing with the Changing World Order* (Part 1: Chapter 1 and 2), for an extensive explanation of the determinants that drive change.

CHAPTER 3: THE MECHANICS IN NUMBERS AND EQUATIONS

- 82 **I outlined this in the prior chapter:** Please see my book, *Principles for Navigating Big Debt Crises* (Part 1: 16), for further description of the policy makers' four levers.

CHAPTER 8: THE OVERALL BIG CYCLE

- 164 **I comprehensively explained:** Please see my book, *Principles for Dealing with the Changing World Order* (Part II), for a comprehensive explanation how the Overall Big Cycle was manifest over the last 500 years.
- 168 **In *Principles for Dealing with the Changing World Order*:** Please see my book, *Principles for Dealing with the Changing World Order* (Part II), for historical case studies of the Big Cycle.
- 170 **To reiterate, I don't mean:** Please see my book, *Principles for Dealing with the Changing World Order* (Part I: Chapter 5), for an overview of the stages and timescale for changes in a country's domestic order.
- 173-174 **A relevant good principle:** Lord Acton, letter to Bishop Mandell Creighton, April 5, 1887, Add. MS 6871, Papers of Lord Acton, Cambridge University Library, UK.
- 174 **In ways that were more thoroughly explained:** Please see my book, *Principles for Dealing with the Changing World Order* (Part I: Chapter 5), for case studies in changes in domestic order.

CHAPTER 9: FROM 1865 TO 1945 IN A TINY NUTSHELL

- 189 **Sticking to the gold standard became:** William Jennings Bryan, “Cross of Gold Speech” Democratic National Convention, Chicago, July 9, 1896, excerpt printed in *San Francisco Call*, July 11, 1896.
- 194 **As previously explained:** Please see my book, *Principles for Dealing with the Changing World Order* (Part I: Chapter 6), for a case study on World War II and the period leading up to it.

CHAPTER 10: A BRIEF REVIEW OF THE BIG DEBT CYCLE FROM 1945 TO NOW

- 210 **GOVT DEBT LEVEL (% GDP):** This chart was produced based on data from Bloomberg Economics. Debt is represented here as a proportion of gross domestic product.
- 215 **Because the US was rich:** “The Postwar Drain on Foreign Gold and Dollar Reserves.” *Federal Reserve Bulletin* 34, no. 4 (1948): 375.
- 216 **Immediately after the war:** For more on Britain’s postwar economic situation, see A. N. Porter and A. J. Stockwell. “Britain’s Post-war Reconstruction and Colonial Policy, 1945–51,” in *British Imperial Policy and Decolonization, 1938–64* (Palgrave MacMillan, 1987).

CHAPTER 11: 1945 TO 1971—A LINKED (I.E., HARD) MONETARY SYSTEM

- 217 **The decline of the British Pound:** Please see my book, *Principles for Dealing with the Changing World Order* (Part II: Chapter 10), for a case study on the rise and decline of the British Empire and the pound.

CHAPTER 12: 1971 TO 2008—A FIAT MONEY, INTEREST-RATE-DRIVEN MONETARY POLICY

- 223 **I call this type of monetary system:** Please see my book, *Principles for Navigating Big Debt* (Part 1: 39–41), to learn about Monetary Policy 1, Monetary Policy 2, and Monetary Policy 3.
- 220 **Seeing the US central bank:** Richard Mooney, “De Gaulle Backs Wider Gold Role,” *New York Times*, February 5, 1965.
- 230 **More specifically, in reaction to the uncontrolled inflation:** John Carney, “A Timely Banking Lesson from the Paul Volcker Era,” *CNBC*, April 5, 2012.
<https://www.cnbc.com/2012/04/05/a-timely-banking-lesson-from-the-paul-volcker-era.html>.
- 230 **“since the birth of Jesus Christ”:** This is a paraphrase of a quote by Helmut Schmidt, see: Hobart Rowen, “Rich and Poor Nations to Chart the Future of Lending Agency,” *Washington Post*, May 9, 1982.

- 235 **In the 1980s, the previously described tight money:** C. Randall Henning and I. M. Destler, “From Neglect to Activism: American Politics and the 1985 Plaza Accord,” *Journal of Public Policy* 8, no. 3–4 (1988): 317–33.
- 242 **“the highest levels since the birth of Jesus Christ”:** This is a paraphrase of a quote by Helmut Schmidt, see: Rowen, “Rich and Poor Nations.”

CHAPTER 13: 2008 TO 2020—FIAT MONEY AND DEBT MONETIZATION

- 251 **For those who are interested:** Please see my book, *Principles for Dealing with the Changing World Order* (Part II: Chapter 11), for an examination of recent political and economic developments in the context of the United States’ “Big Cycle” rise and decline.
- 254 **If you want to get into them:** Please see my book, *Principles for Dealing with the Changing World Order* (Part II: Chapter 13), for a discussion of contemporary changing economic and geopolitical relationships between the US and China.
- 254 **Climate change started to get a lot of attention:** United Nations, Framework Convention on Climate Change, *Adoption of the Paris Agreement*, FCCC/CP/2015/L.9 (December 11, 2015).
- 259-260 **USA and WEALTH INCOME SHARE:** These charts are based on data from the World Inequality Database.

CHAPTER 14: SINCE 2020—PANDEMIC AND BIG FISCAL DEFICITS MONETIZED

- 261 **This massive MP3-type of coordination of fiscal and monetary policies:** Please see my book, *Principles for Navigating Big Debt* (Part 1: 41; Part 2), to learn about Monetary Policy 3 and various case studies of its application.
- 265 **If you connect the dots from the past to the present:** Please see my book, *Principles for Dealing with the Changing World Order* (Part I: Chapter 1), for a comprehensive explanation of the Big Cycle template.

CHAPTER 15: CHINA’S BIG CYCLE FROM 1945-49 UNTIL NOW IN A TINY NUTSHELL

- 267 **This measure shows the estimated relative strength:** Please see my book, *Principles for Dealing with the Changing World Order* (Part II: Chapter 12), for analysis of China’s Big Cycle.
- 269 **CHINA TOTAL DEBT (% GDP):** This chart was produced using data from Ning Su, ed., *China Financial Statistics (1949–2005)* (Finance Publishing House, 2007) and George Norman Ecklund. *Foreign and Domestic Debt in Communist China*. (Central Intelligence Agency, 1960).
- 270-271 **As you can see in the first chart, China’s relative power:** To see the Country Power Index, please visit economicprinciples.org.

- 270 **In 1971, the UN General Assembly:** United Nations, General Assembly, Resolution 2758 (XXVI), Restoration of the lawful rights of the People's Republic of China in the United Nations, A/RES/2758(XXVI) (October 25, 1971).
- 273 **“to get rich is glorious”:** This is a simplified reference to a quote by Deng Xiaoping, see: Khiem Do, “It Is Glorious to Be Rich,” *Hedge Fund Journal*, January 2005, <https://thehedgefundjournal.com/it-is-glorious-to-be-rich/>.
- 273 **“it doesn’t matter whether a cat is black or white”:** This quote is widely attributed to Deng Xiaoping, see: “It Doesn’t Matter If a Cat Is Black or White, as Long as It Catches Mice.” *The Oxford Dictionary of Proverbs*, Oxford University Press, 2008.
- 273 **“common prosperity”:** Bert Hofman, “Common Prosperity Did Not Fall from the Sky,” *Mercator Institute for China Studies*, October 5, 2021, <https://merics.org/en/comment/common-prosperity-did-not-fall-sky>.
- 275 **“In 2009, pointing to an old map”:** Ban Ki-Moon, CML/17/2009 (United Nations, 2009).
- 276 **“poverty rate fell”:** Dylan Sullivan, Michail Moatsos, and Jason Hickel. “Capitalist Reforms and Extreme Poverty in China: Unprecedented Progress or Income Deflation?” *New Political Economy* 29 (2023).
- 278 **“In 2018, Xi began his second five-year term”:** Jessica Greely and Aaron Clarke, “Xi’s Inner Circle,” *Third Way*, July 28, 2023, <https://www.thirdway.org/memo/xis-inner-circle>.
- 278 **“Xi emphasized the importance of “common prosperity”:** Hoffman (2021).
- 280 **“controls 1.4 billion people with an iron fist”:** Donald J. Trump, transcript of rally in Grand Rapids, MI, July 20, 2024.
- 280 **“Many years ago”:** Sun Tzu, *The Art of War* (Courier Dover Publications, 2019).

CHAPTER 16: THE JAPANESE CASE AND THE LESSONS IT PROVIDES

- 294 **initiated their “three arrows” policy to:** “Abenomics Is Progressing!” JapanGov, We Are Tomodachi, Speeches and Policy, Winter 2013
- 305 **TYPICAL APARTMENT MONTHLY RENT (ABOUT 700 SQ FT):** This chart was produced using internal Bridgewater analysis, based on data from the Association for Real Estate Securitization in Japan (ARES).
- 315 **best characterized by “pushing on a string”:** Please see my book, *Principles for Navigating Big Debt* (Part 1) for in-depth discussion on the sixth phase of the classic deflationary debt cycle, “pushing on a string.”
- 319 **If you want to look at them more closely:** To see the Country Power Index, please visit economicprinciples.org.

CHAPTER 17: WHAT MY INDICATORS SHOW

- 327-328 **ASSESSING CENTRAL GOVERNMENT AND CENTRAL BANK LONG-TERM DEBT RISKS:** This chart was produced based on data from Global SWF, a data and research platform that tracks sovereign wealth funds, public pension funds, and central banks.
- 333 **For a review of the declines:** Please see my book, *Principles for Dealing with the Changing World Order* (Chapter 9 and 10), for a review of the declines of the Dutch Guilder and the British Pound.

CHAPTER 18: MY 3% 3-PART SOLUTION

- 350 **SAMPLE OF OPTIONS FOR REDUCING DEFICITS THROUGH SPENDING CUTS:** This chart was produced based on data from the Congressional Budget Office, the Joint Committee on Taxation, and Penn Wharton Budget Model.
- 351 **SAMPLE OF OPTIONS FOR REDUCING DEFICITS THROUGH TAX INCREASES:** This chart was produced based on data from the Congressional Budget Office, the Joint Committee on Taxation, and Penn Wharton Budget Model.

CHAPTER 19: WHAT THE FUTURE LOOKS LIKE TO ME

- 361 **The computerized expert systems:** To see the Dalio Market Principles course, please visit principles.com.
- 363 **I broke this Big Cycle up:** Please see my book, *Principles for Dealing with the Changing World Order* (Part I: Chapter 5), for an explanation of the six stages in the Big Cycle template.
- 373-374 **IDEOLOGICAL POSITIONS OF THE MAJOR PARTIES; SHARE OF CONGRESSIONAL MEMBERS' VOTES CAST ALONG PARTY LINES:** These charts were produced based on data from Vote View.
- 374 **% WHO SAY THERE ARE VERY/SOMEWHAT STRONG CONFLICTS BETWEEN PEOPLE WHO SUPPORT DIFFERENT POLITICAL PARTIES IN THEIR OWN COUNTRY:** This chart was sourced Pew Research Center, Washington, D.C., (November 16, 2022), <https://www.pewresearch.org/short-reads/2022/11/16/most-across-19-countries-see-strong-partisan-conflicts-in-their-society-especially-in-south-korea-and-the-u-s/>.
- 375 **GLOBAL POLITICAL POLARIZATION INDEX:** This chart was produced using Varieties of Democracy (V-DEM), a project run out of the University of Gothenburg in Sweden to create standardized global databases covering five indicators of governance and civil society
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- 378 **less than a sixth-grade reading level:** U.S. Department of Education, National Center for Education Statistics, *Adult Literacy in the United States*, NCES 2019179, Saida Mamedova and Emily Pawlowski, 2019.
- 385 **China, which is home to:** *U.S. News & World Report*, “2024–2025 Best Global Universities Rankings.” <https://www.usnews.com/education/best-global-universities/rankings>
- 385 **GLOBAL RGDP PER CAPITA (LN):** Global RGDP is primarily a mix of European countries before 1870 due to limited reliable data coverage across other countries before that point. These charts combine spliced estimates at a country level for major countries. The analysis is based in part on data from Maddison Historical Statistics and from Roger Fouquet and Stephen N. Broadberry, “Seven Centuries of European Economic Growth and Decline,” *Journal of Economic Perspectives* 29, no. 4 (2015). Specific country series, many found via Fouquet and Broadberry, include: for the UK, the Bank of England’s dataset, “A Millennium of Macroeconomic Data”; as well as Stephen Broadberry, Bruce Campbell, Alexander Klein, Mark Overton and Bas van Leeuwen, *British Economic Growth, 1270–1870* (Cambridge University Press, 2015). For NLD, Jan Luiten van Zanden and Bas van Leeuwen, “Persistent but not consistent: the growth of national income in Holland 1347–1807,” *Explorations in Economic History* 49 (2015). For ITA, Paolo Malanima, “The long decline of a leading economy: GDP in central and northern Italy, 1300–1913,” *European Review of Economic History* 15 (2011). For ESP, Carlos Alvarez-Nogal and Leandro Prados de la Escosura, “The rise and fall of Spain (1270–1850),” *Economic History Review* 66, no. 1 (2013). For SWE, Lennart Schön and Olle Krantz, “The Swedish economy in the early modern period: constructing historical national accounts 1560–2000,” *European Review of Economic History* 16 (2012). For PRT, Nuno Palma and Jaime Reis, “Portuguese demography and economic growth, 1500–1850,” Paper for *Accounting for the Great Divergence Conference*, May 2014. For CHN, Stephen Broadberry, “Accounting for the Great Divergence” VoxEU (2013); as well as Kent Deng and Patrick Karl O’Brien, “Creative Destruction: Chinese GDP per capita from the Han Dynasty to Modern Times,” Working Papers 0063, European Historical Economics Society (EHES), 2014.
- 385 **GLOBAL LIFE EXPECTANCY AT BIRTH:** This chart was produced using Bridgewater analysis, based on data from Our World in Data and the UN for the front history, extended back based on data from Clio Infra and Gapminder. The 2020 point is based on countries that had reported data for the year as of August 2021.
- 387 **As far as the best places to be:** To see the Country Power Index, please visit economicprinciples.org.

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