Lacy H. Hunt
Executive Vice President
Hoisington Investment Management

Dr. Lacy H. Hunt, an internationally known economist, is Executive Vice President of Hoisington Investment Management Company (HIMCO), a firm that manages some $5 billion for pension funds, endowments, insurance companies and others. He is starting his 23rd year of service as Chief Economist of HIMCO.

Lacy Hunt is the author of two books, and numerous articles in leading magazines, periodicals and scholarly journals. Included among the publishers of his articles are: *Barron's*, *The Wall Street Journal*, *The New York Times*, the *Journal of Finance*, the *Financial Analysts Journal* and the *Journal of Portfolio Management.*

The Wall Street Journal, *The New York Times*, *BusinessWeek*, *Barron's*, *Time*, *Newsweek*, *U.S. News and World Report*, *Investor's Business Daily* and many other domestic periodicals have quoted Dr. Hunt. Among the foreign press, Dr. Hunt's views have appeared in *The Financial Times*, the *Nihon Keizai Shinbun*, the *South China Post, The International Herald Tribune* and *Straight Times*. He has been a guest on *PBS* on *The Nightly Business Report*, *The News Hour*, and *Wall Street Week*.

Previously, he was Chief U.S. Economist for the HSBC Group, one of the world's largest banks, Executive Vice President and Chief Economist at Fidelity Bank and Vice President for Monetary Economics at Chase Econometrics Associates, Inc. A native of Texas, Dr. Hunt has served as Senior Economist for the Federal Reserve Bank of Dallas.

He earned his BA from Sewanee: The University of the South (1964), his MBA from the Wharton School of the University of Pennsylvania (1966), and his Ph.D. in Economics from the Fox School of Business and Management of Temple University (1969). He received an honorary Doctor of Civil Laws from Sewanee (2013).

He received the Abramson Award from the National Association for Business Economics for "outstanding contributions in the field of business economics." The honorary doctorate from Sewanee said "His career path has included stops at some of the most powerful financial institutions in the country, where he has not only influenced internal investment policy but has left an indelible mark on the nation's economic policy through his publications, speeches and appearances in the national media."

Hoisington Investment Management Company is a registered investment advisor specializing in fixed income portfolios. Located in Austin, Texas, the firm has over $5 billion under management, composed of pension and profit sharing plans for both corporate and government entities, charitable organizations and insurance companies.

Hoisington Investment Management Company focuses on long-term investment strategies that utilize only U.S. Treasury securities. This style of management allows the firm to offer liquidity, diversification, capital preservation and the ability for attractive returns.

Presentation: "Cyclical, Structural and Monetary Restraints Against Growth"

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Macro-Economic Assessment

by Lacy H. Hunt, Ph.D., Chief Economist
Hoisington Investment Mgt. Co.

Presented to:
Casgrain & Co. Limited
Annual Economic Conference
Friday, July 8, 2022
Quebec City, QC

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Austin, Texas 78746
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Disaster

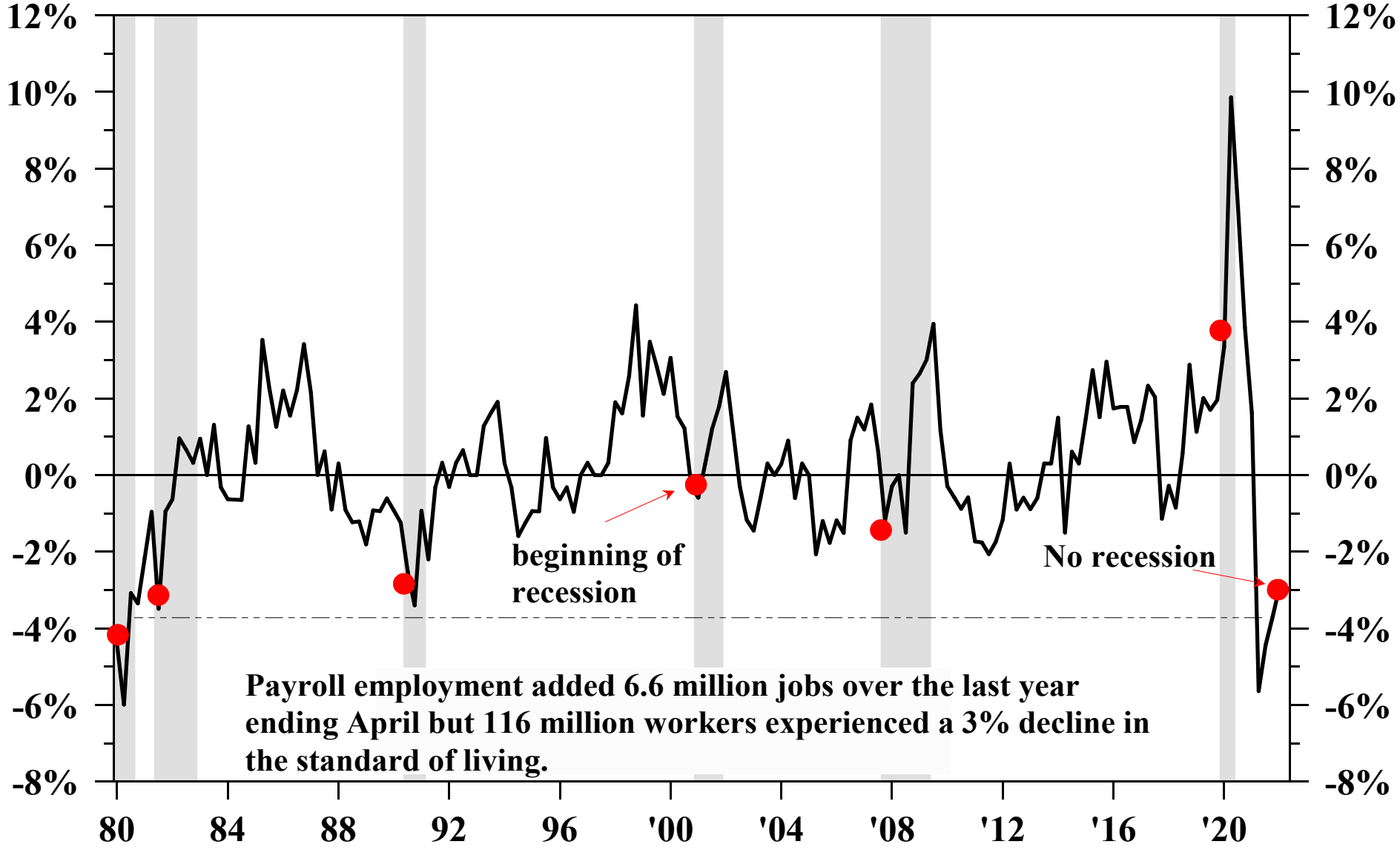
Consider the following:

A. In the face of an unsurpassed breakdown in product delivery systems, this money creation caused a massive imbalance between the demand and supply of goods.

B. Reversing the past monetary and fiscal excess liquidity error will take time and persistence by the Fed.

Real Earnings: Full Time Wage and Salary Workers

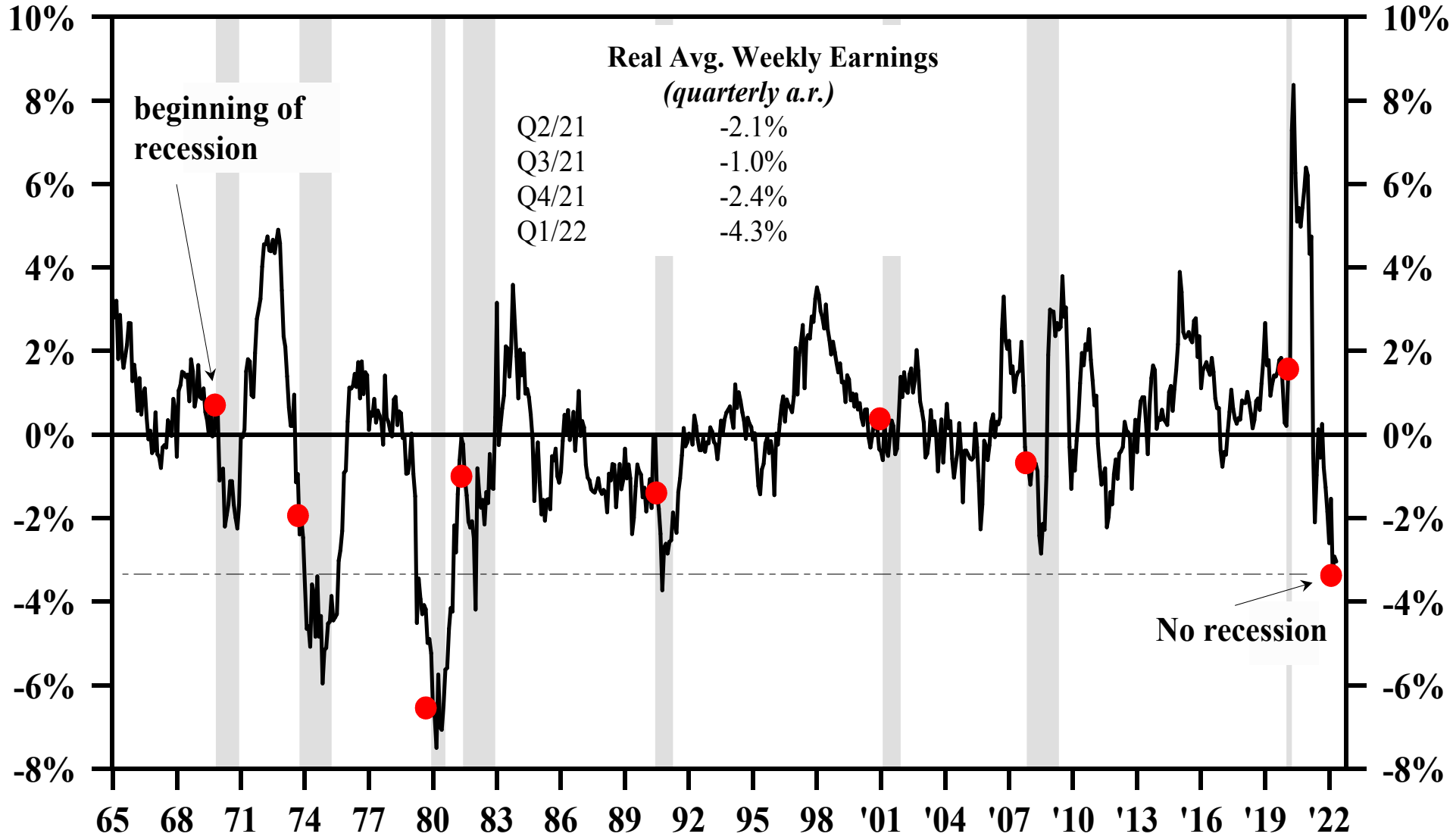
year over year % change, quarterly



Sources: Bureau of Labor Statistics. Through Q1 2022.

Real Average Weekly Earnings

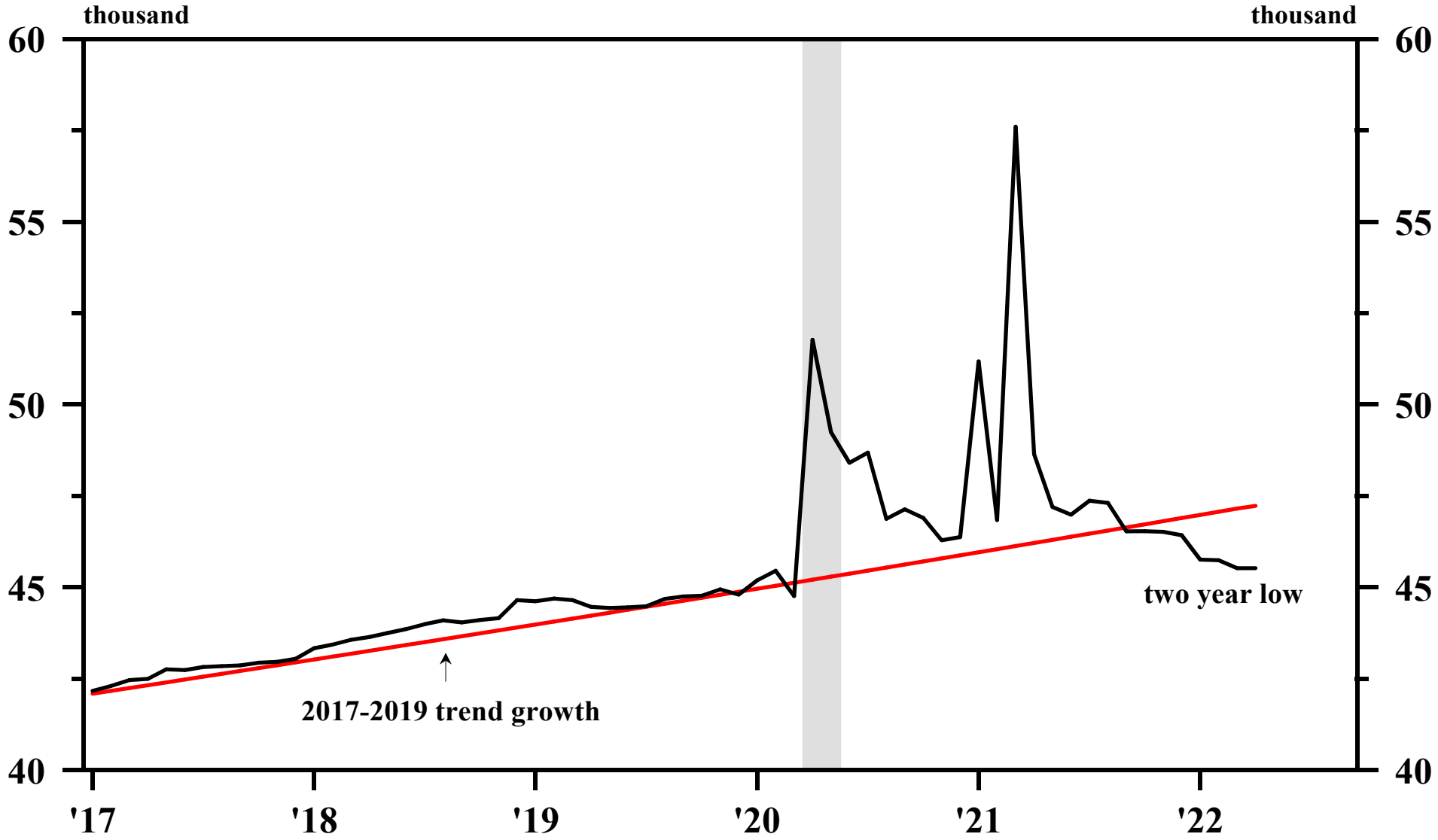
year over year percent change, monthly



Source: Bureau of Labor Statistics. Through May 2022. Production and nonsupervisory workers.

Real Disposable Personal Income per Capita

monthly



Source: Bureau of Economic Analysis. Through April 2022.

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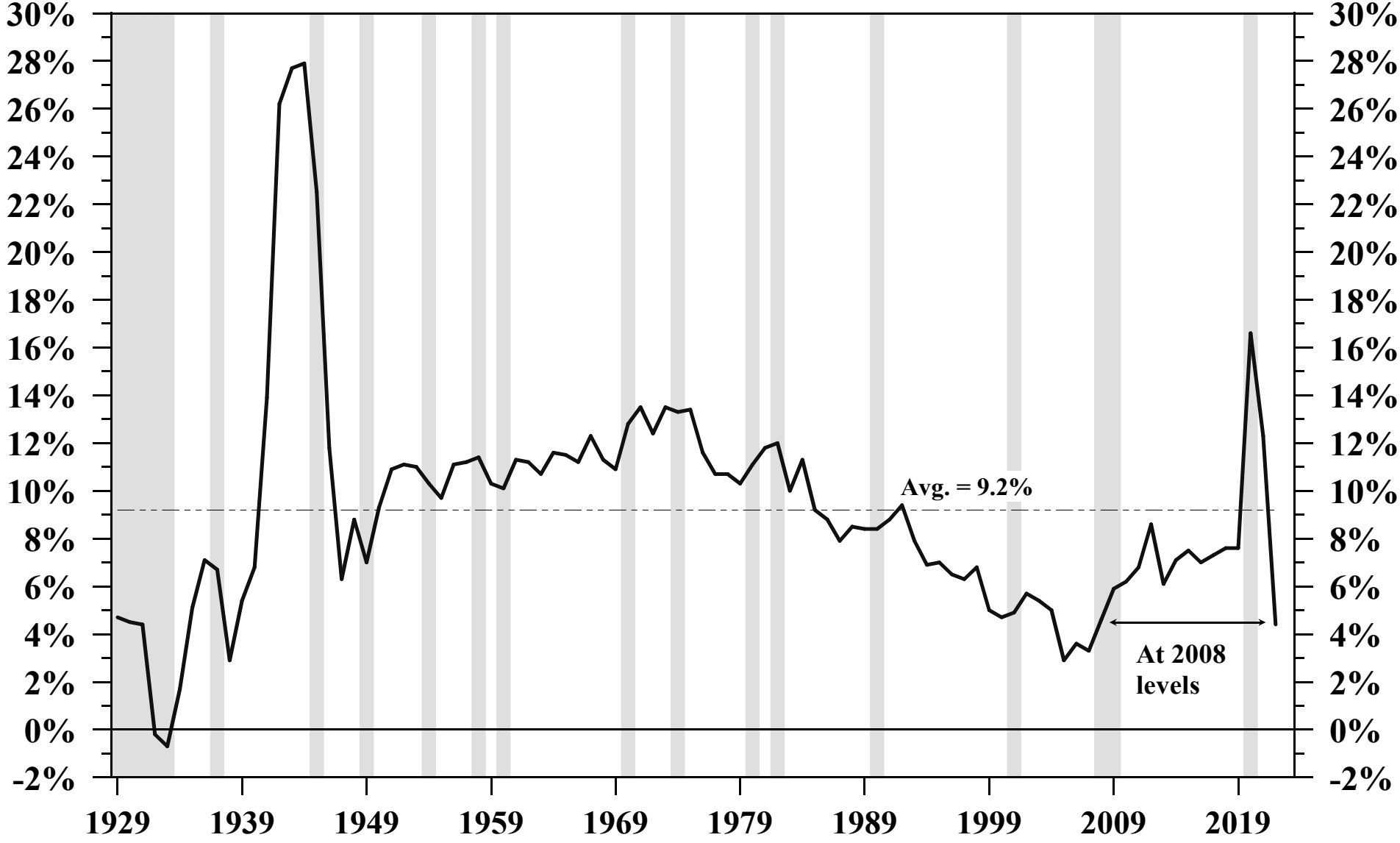
Personal Saving Rate 1929-2022

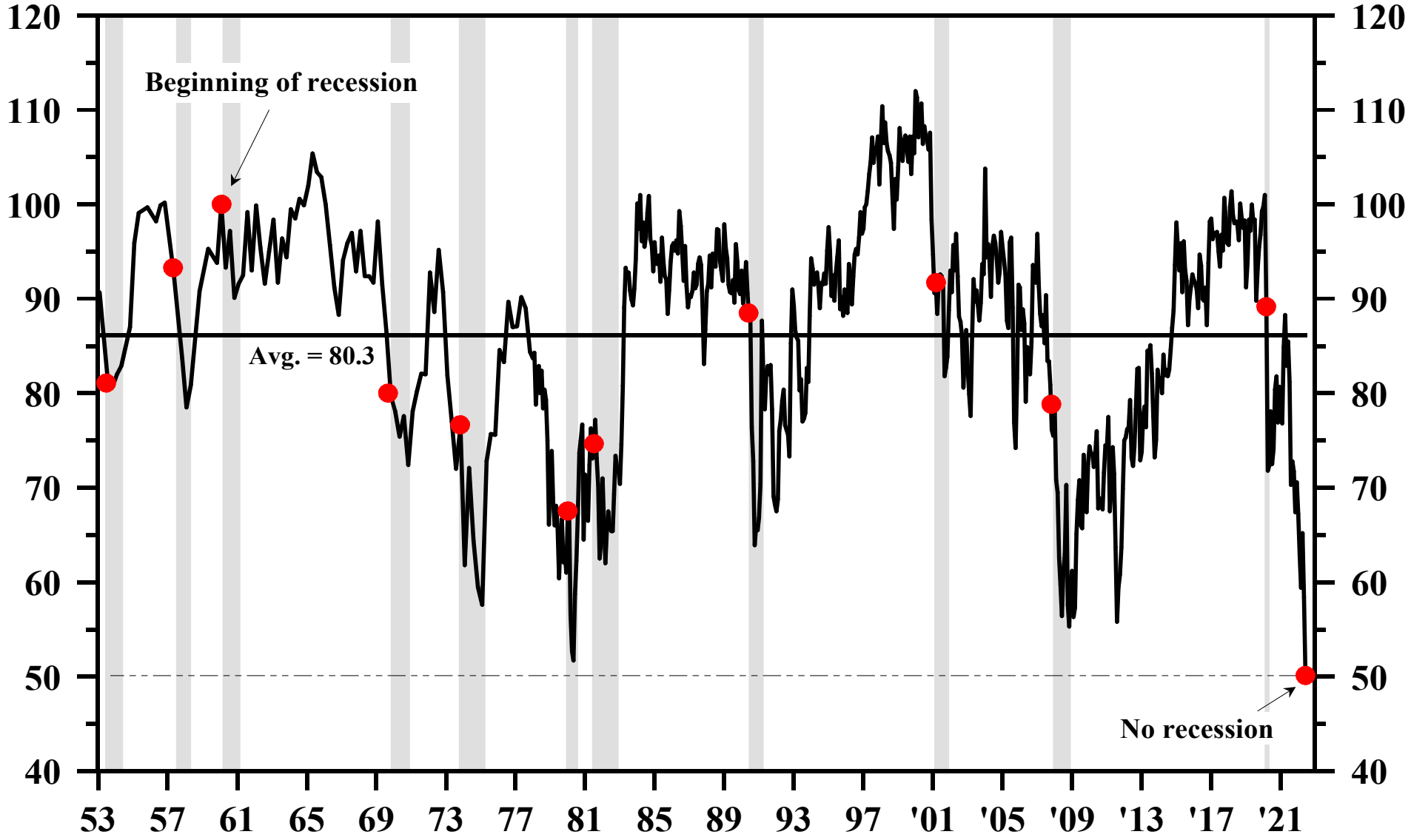
annual average



Sources: Bureau of Economic Analysis. Through April 2022.

Michigan Consumer Sentiment

monthly index



Source: University of Michigan. Through June 2022.

Pre-Recessionary Indicators

1. Real retail sales have declined in five of the last seven months and is down 5.5% in the last 12 months.

2. Average hourly earnings slowed to a 4.5% annual rate in the latest three months down from a 6.1% three month growth rate at the end of 2021.

3. Rail and trucking freight has lost significant momemtum in 2022.

4. Mortgage purchase applications are down 33.3% from the 2020 peak and mortgage refinancing applications are down 85.1% from 2021 peak.

5. 1/22-5/22 average vehicle sales are down 17.6% versus Q4 2019.

6. New home sales are down 43% from the 2020 peak and existing home sales are down 15.6% from the 2021 peak.

7. The composite index of the NFIB Small Business Survey sank to 93.2 in March and April, the lowest two month average since the April-May average of 2020.

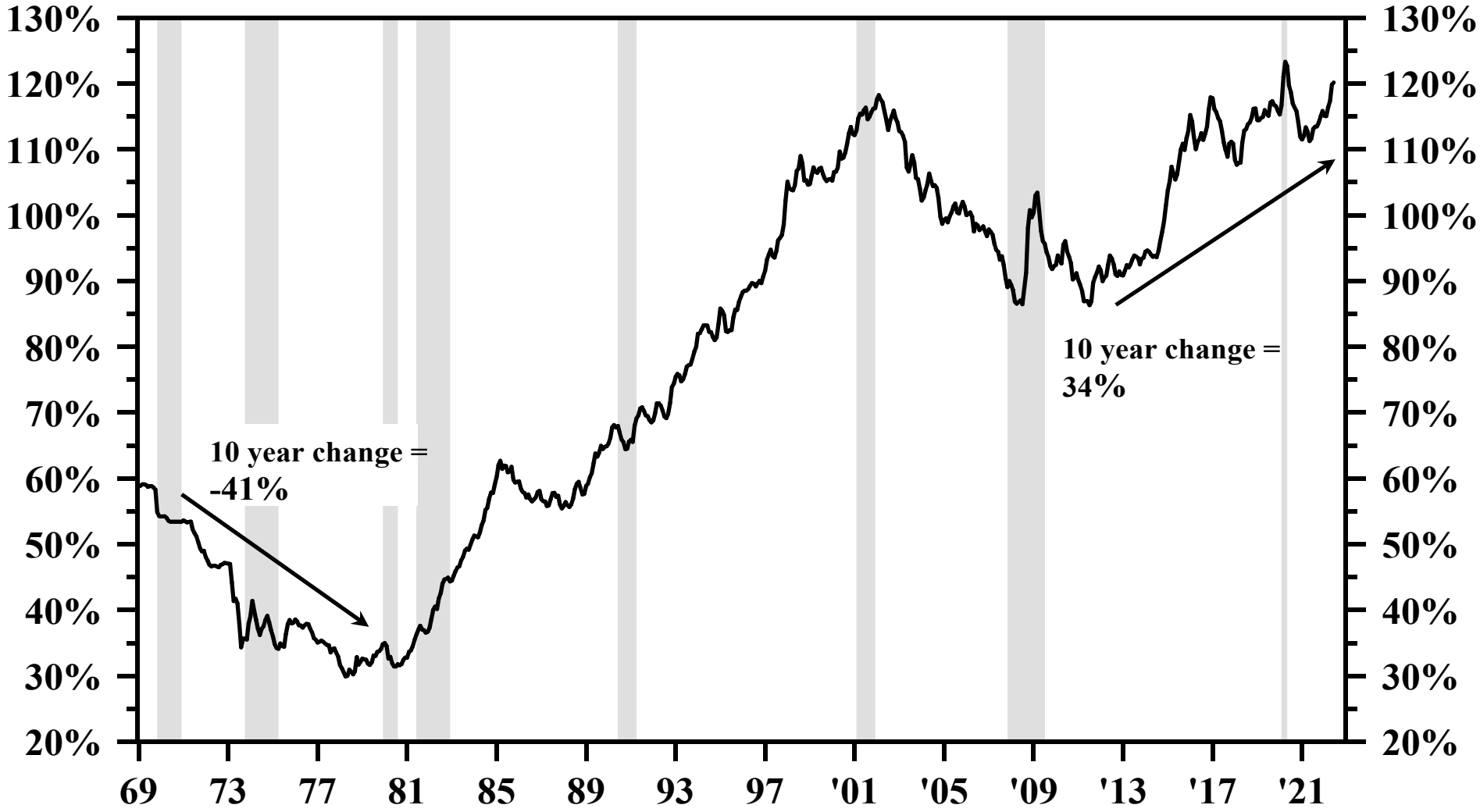
8. Manufacturing PMI is down 12% from the 2021 peak.

9. Services PMI is down 18.3% from the 2021 peak.

10. New York Fed's weekly economic index is down 49.4% vs the peak in 2021.

Nominal Federal Reserve Trade-Weighted Dollar Index

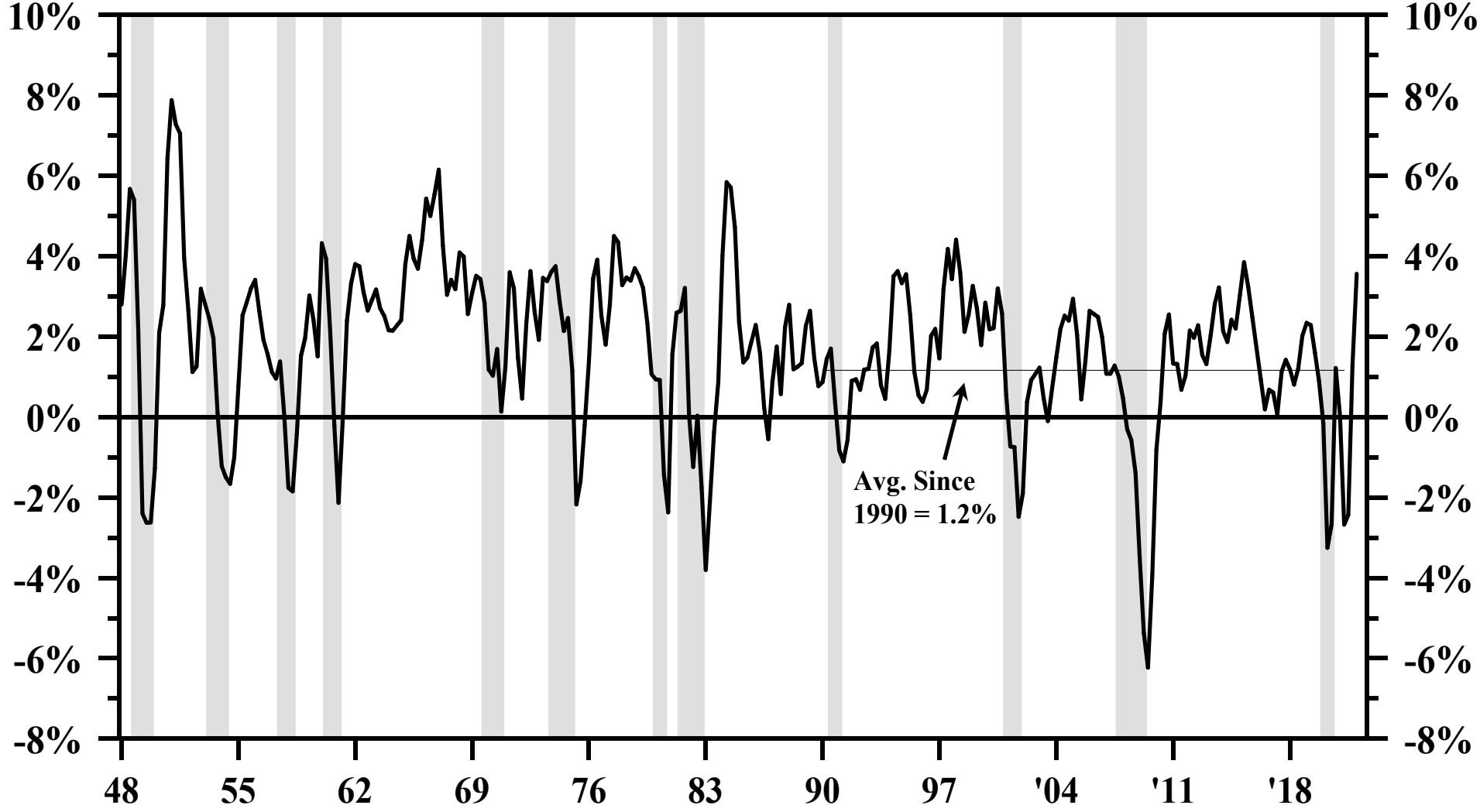
monthly



Source: Federal Reserve. Through June 10, 2022. January 1969- December 1979 represented by changes in the German D. Mark.

Real Inventory Investment as a % of Real GDP

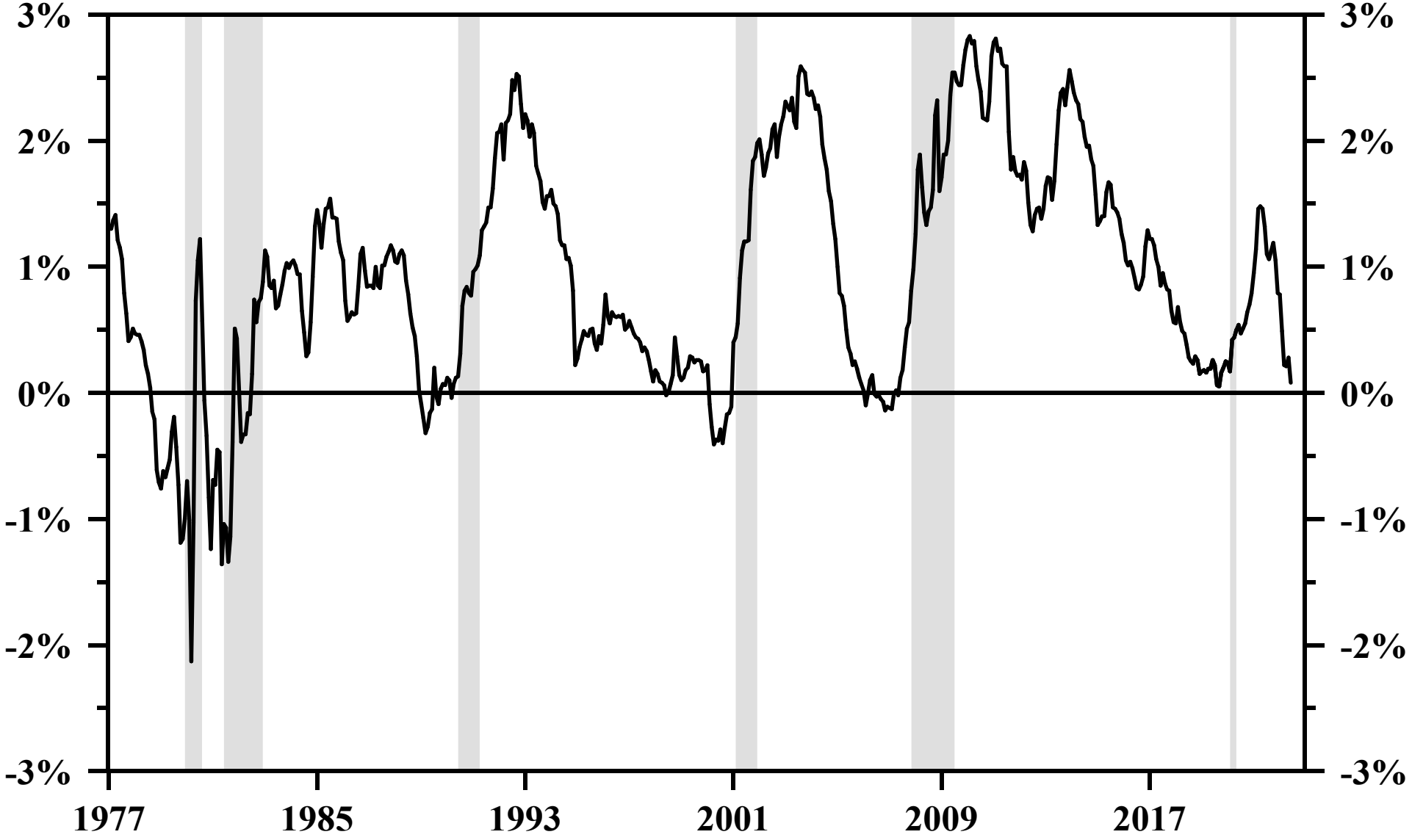
two quarter average



Source: Bureau of Economic Analysis. Through Q1 2022.

10 Year Note Yield less 2 Year Note Yield

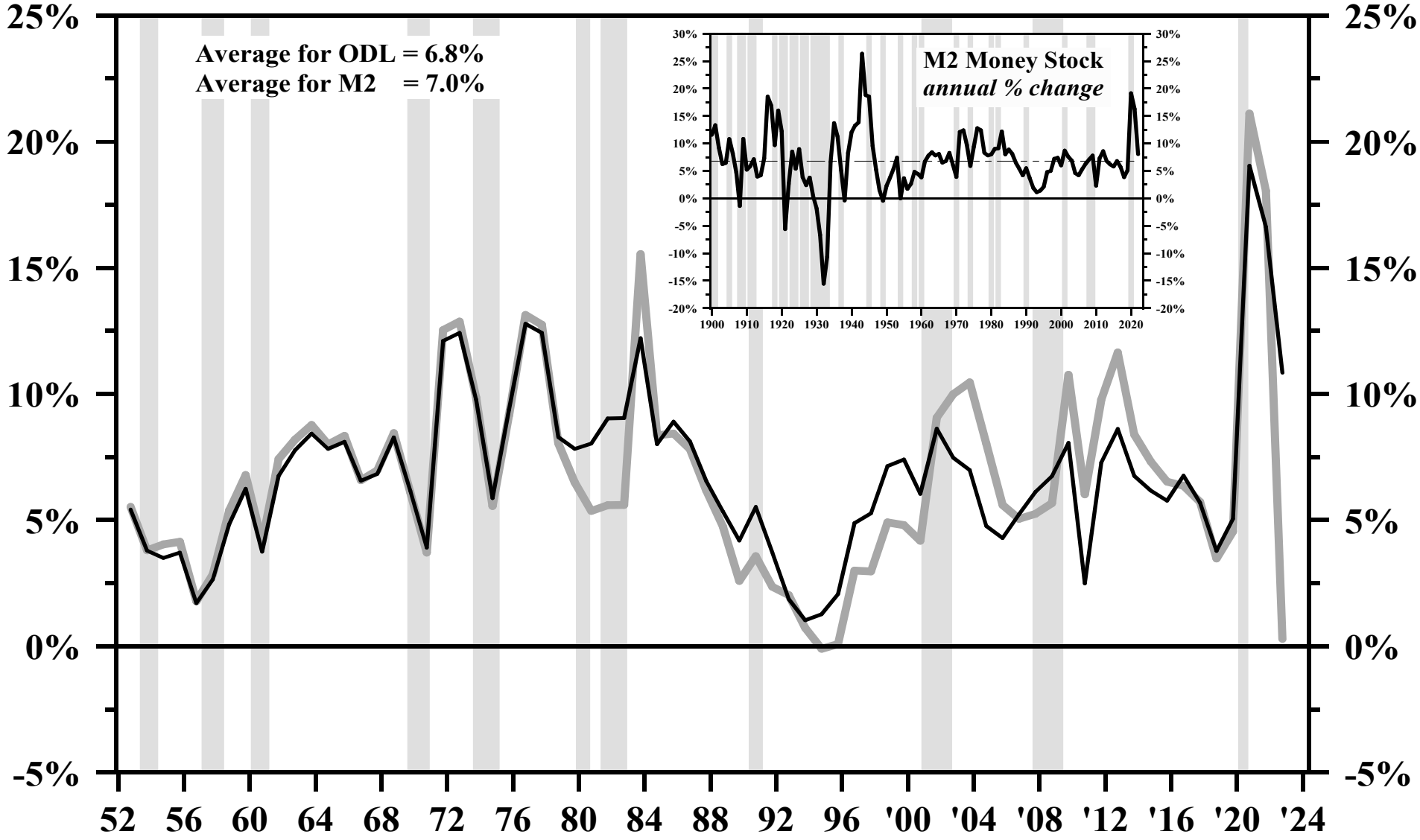
monthly



Source: Federal Reserve Board. Through June 13, 2022.

M2 vs. Other Deposits of Commercial Banks

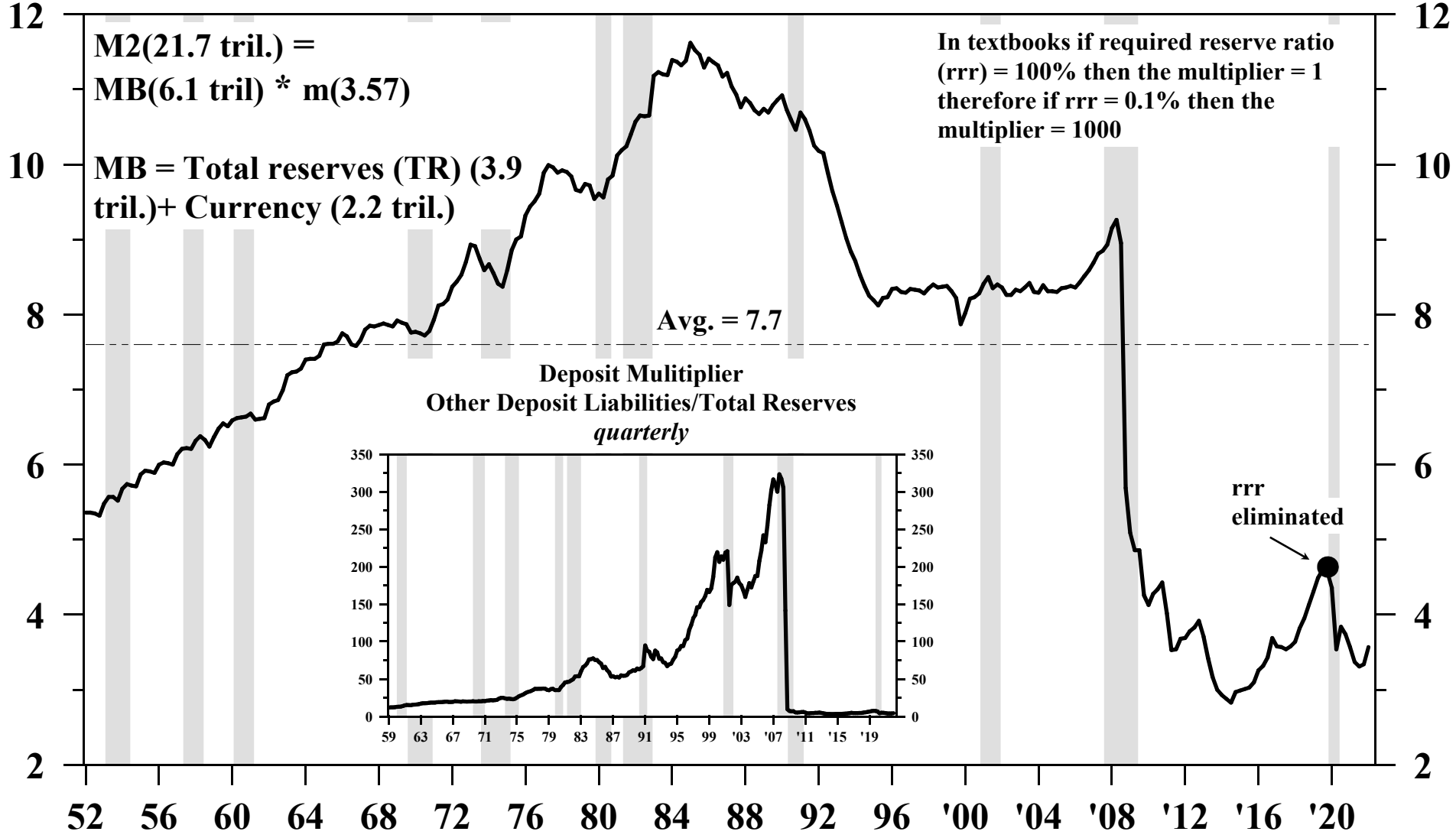
year over year % change, annual



Sources: Federal Reserve Board. Through April 2022. ODL last plot is 23 week a.r. ending June 1.

Money Mulitiplier (Demand) 1952-2022

quarterly



Sources: Federal Reserve, St. Louis Federal Reseve. N.B.E.R. Through Q1 2022. Money multiplier equals M2 money supply divided by the monetary base.

Recent Changes in the Monetary Base, Total Reserves and Other Deposit Liabilities

quarterly

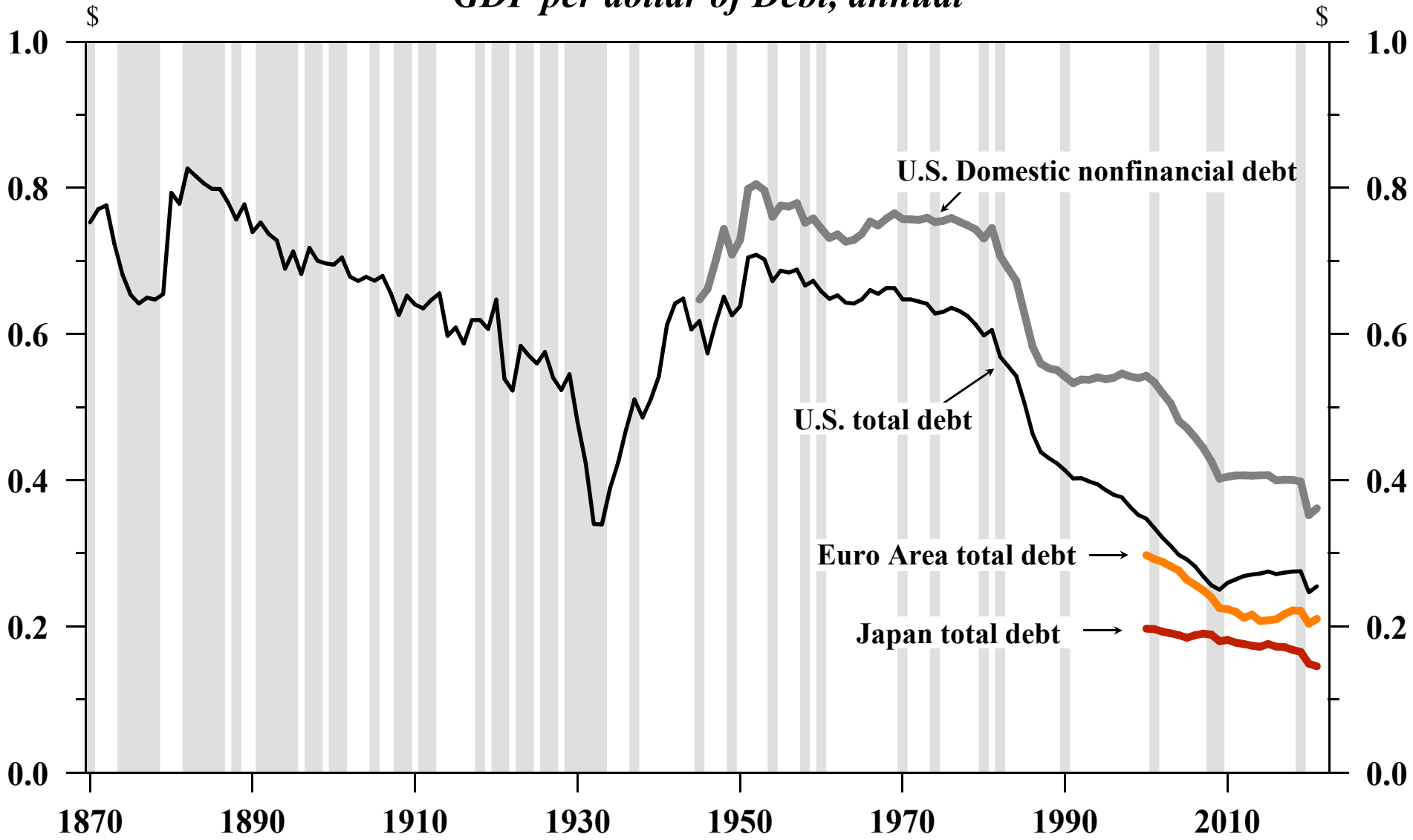
	Total Reserves (y-o-y)	Other Deposits of Commercial Banks (y-o-y)	CPI (y-o-y)
2020	92.3%	26.8%	2.1%
2021	33.6%	13.8%	8.9%
2022	-38.7% (24 week a.r.)	.29% (23 week a.r.)	10.7% (3 month a.r.)

Sources: Federal Reserve, Bureau of Labor Statistics.

Marginal Revenue Product of Debt

(excluding off balance sheet liabilities)

GDP per dollar of Debt, annual



Sources: Bureau of Economic Analysis, Federal Reserve, Statistical Office of the European Communities, Bank of Japan, Congressional Budget Office. Census Bureau: Historical Statistics of the United States Colonial Times to 1970. Through 2021.

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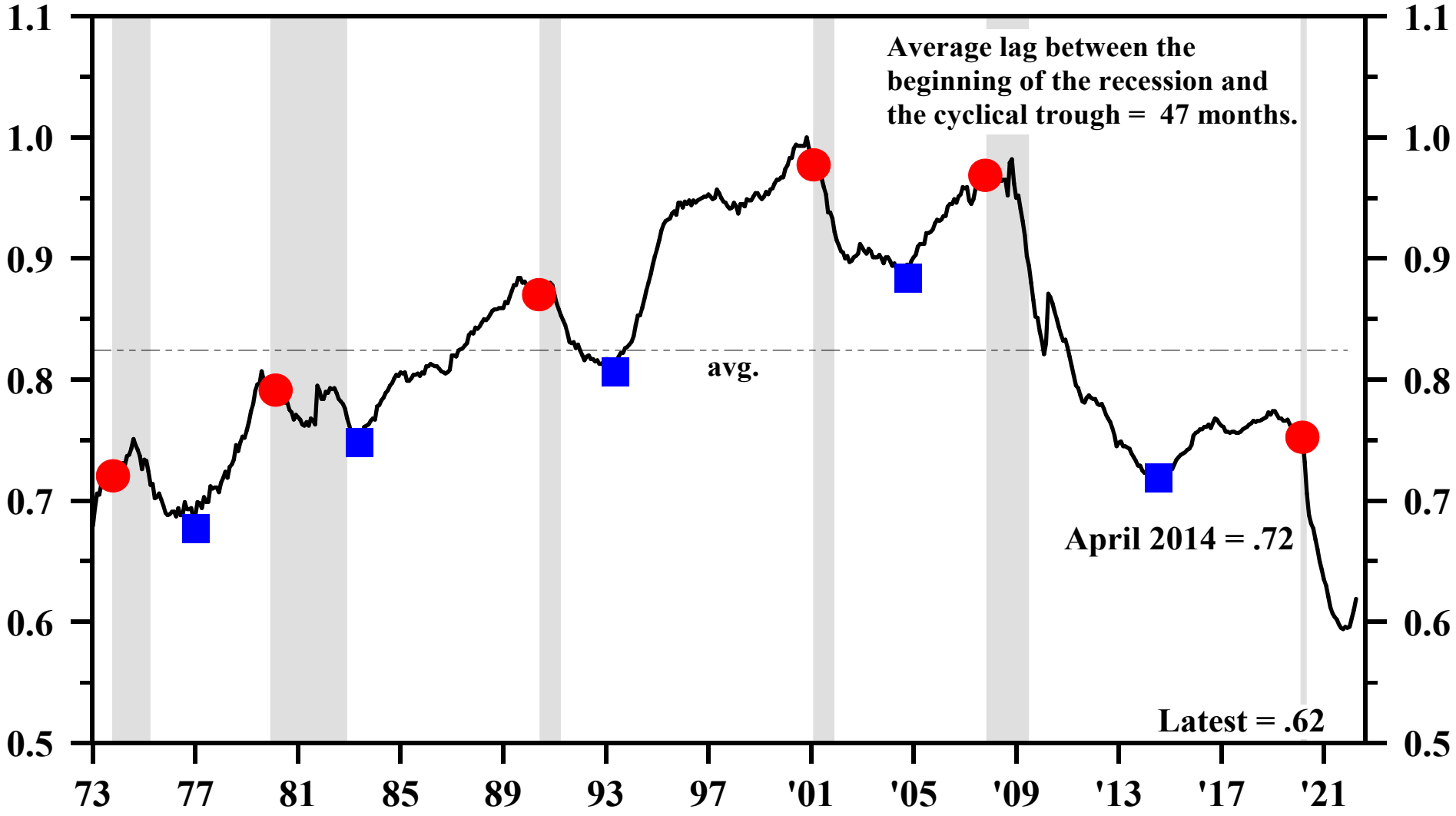
Total Loan to Deposit Ratio: All U.S. Commercial Banks (1973-2022)

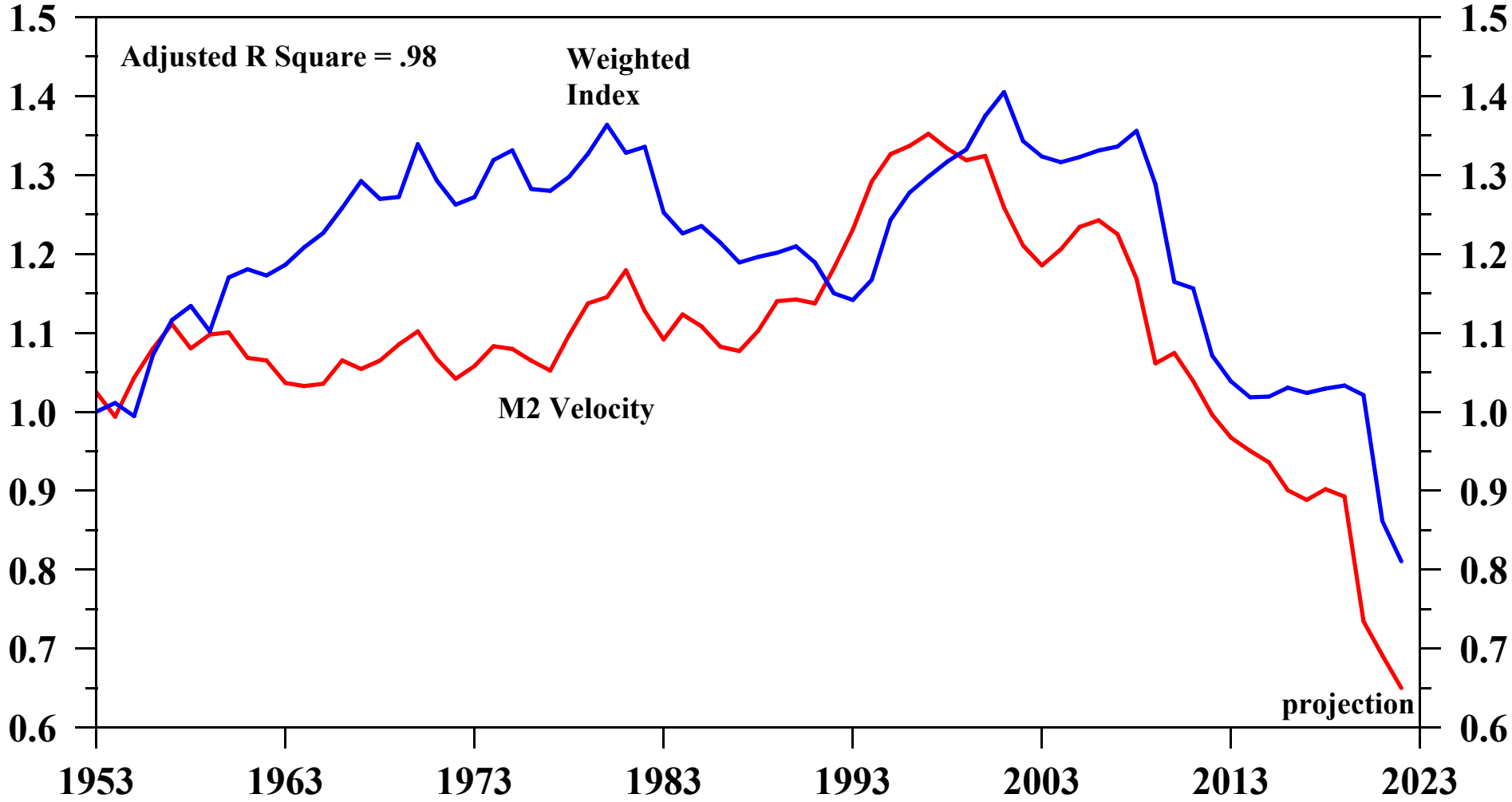
monthly



Source: Federal Reserve Board. Through May 2022. Recessions of 1980 and 1981-82 were treated as one recession.

Money Velocity vs. the Lagged Weighted Index of Marginal Revenue Product of Debt and the Commercial Bank Loan to Deposit Ratio (1953-2021)

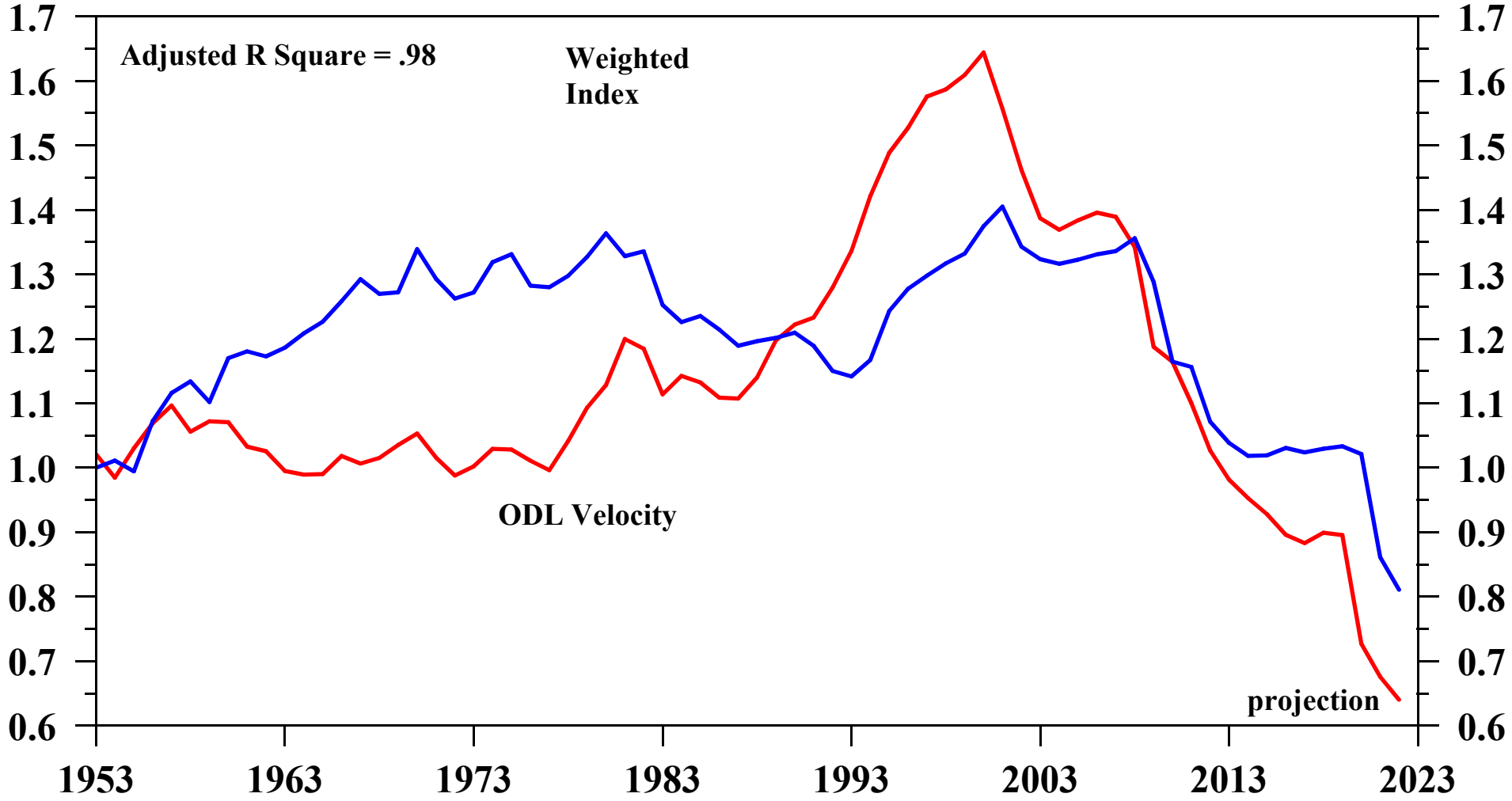
indexed annually



Sources: Federal Reserve Board. Through 2022.

ODL Velocity vs. the Lagged Weighted Index of Marginal Revenue Product of Debt and the Commercial Bank Loan to Deposit Ratio (1953-2021)

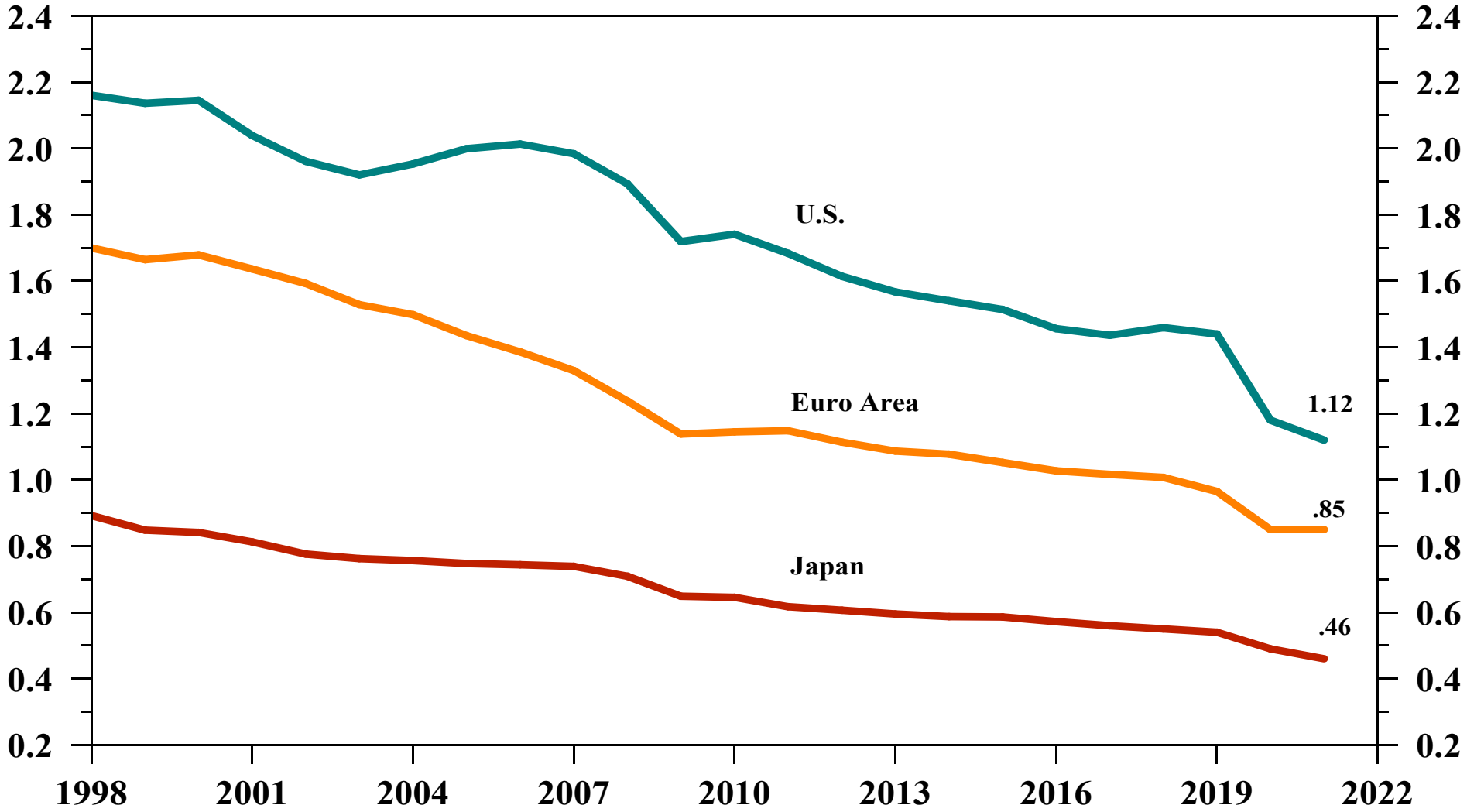
indexed annually



Sources: Federal Reserve Board. Through 2022.

M2 Velocity: Three Major Economies

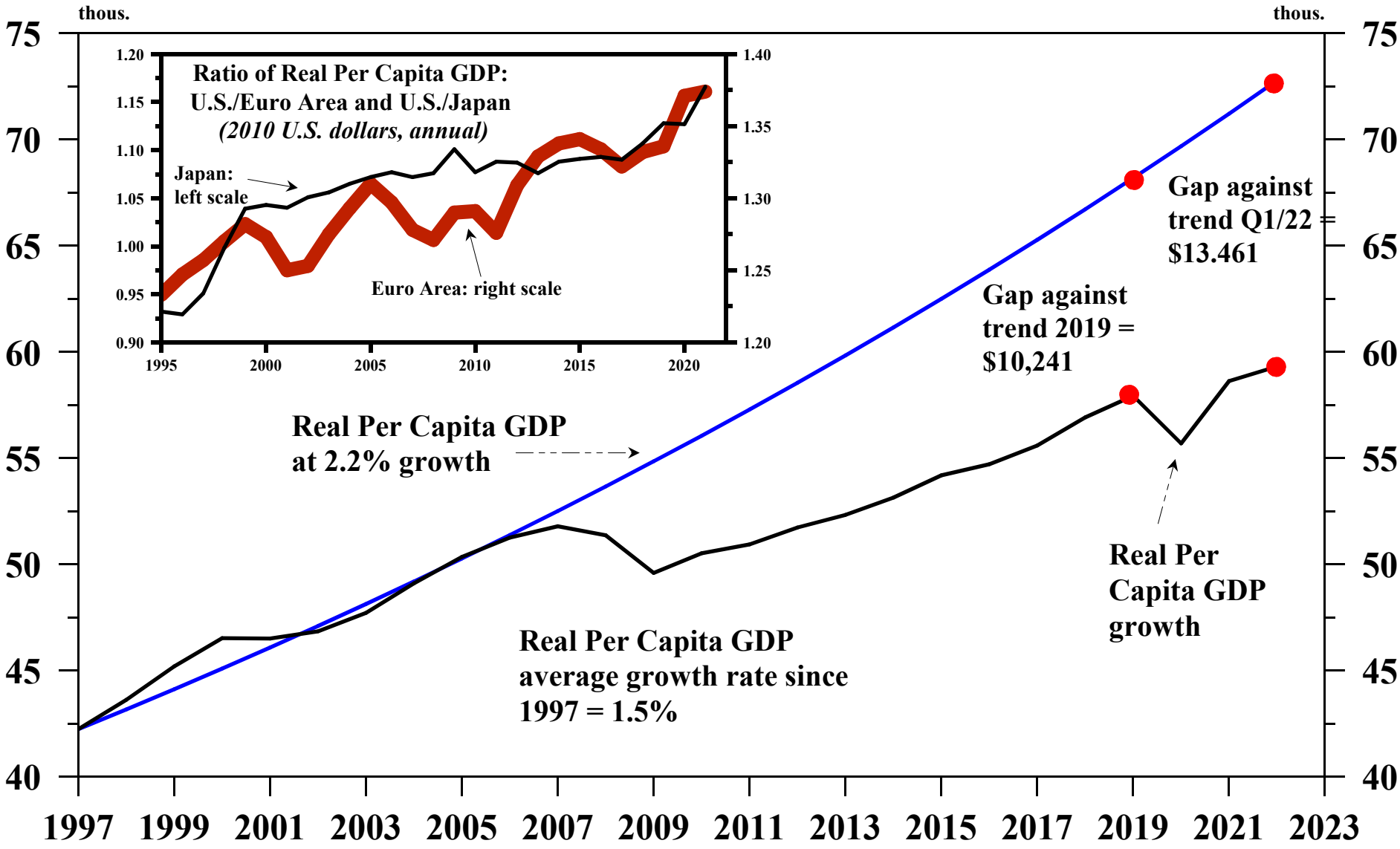
annual



Sources: Bureau of Economic Analysis, Federal Reserve, European Central Bank, Bank of Japan, China National Bureau of Statistics, People's Bank of China, Haver Analytics. Through Q4 2021.

Real Per Capita GDP vs. Pre-1997 Trend

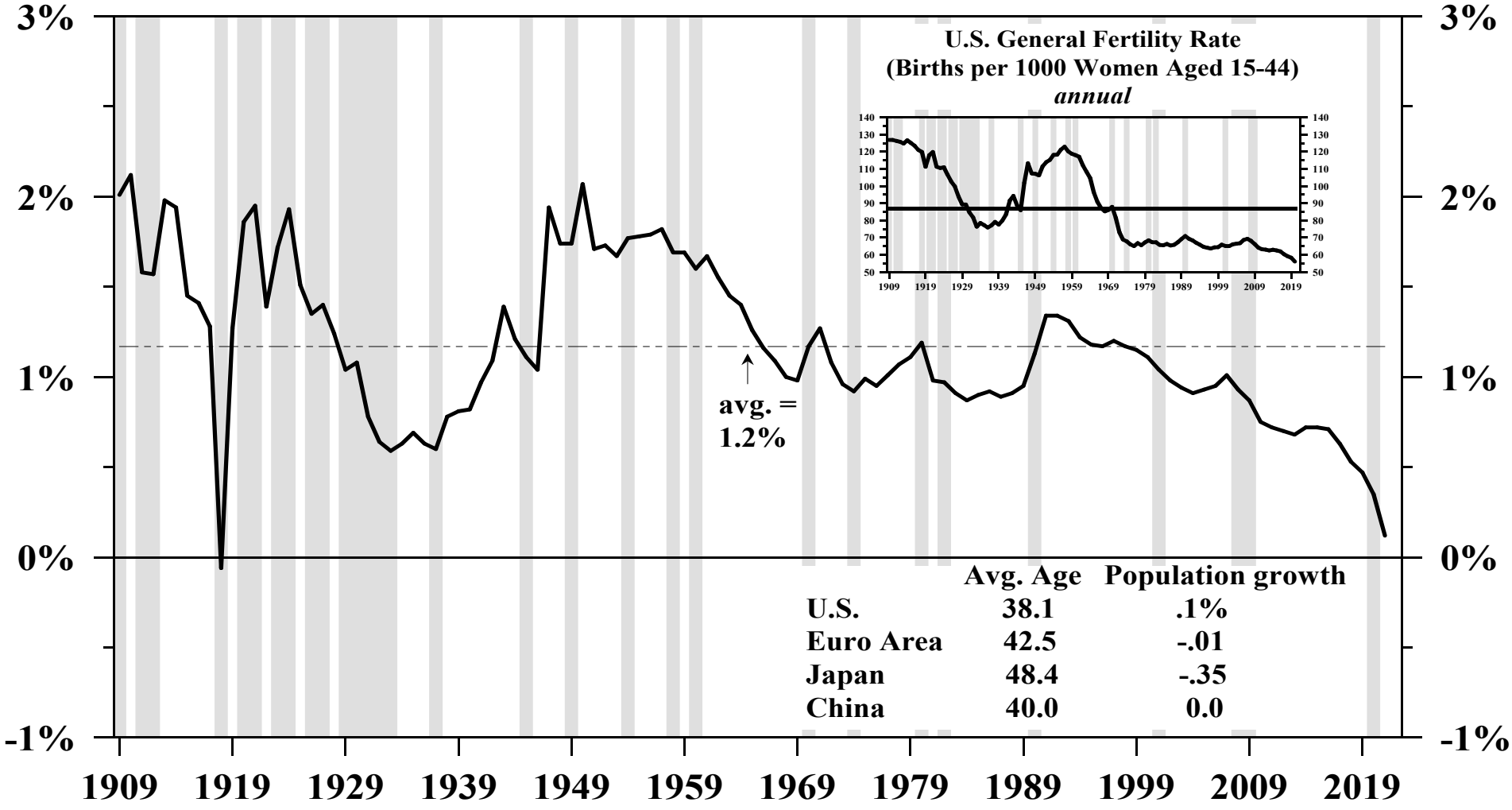
annual



Sources: Bureau of Economic Analysis. Through Q1 2022.

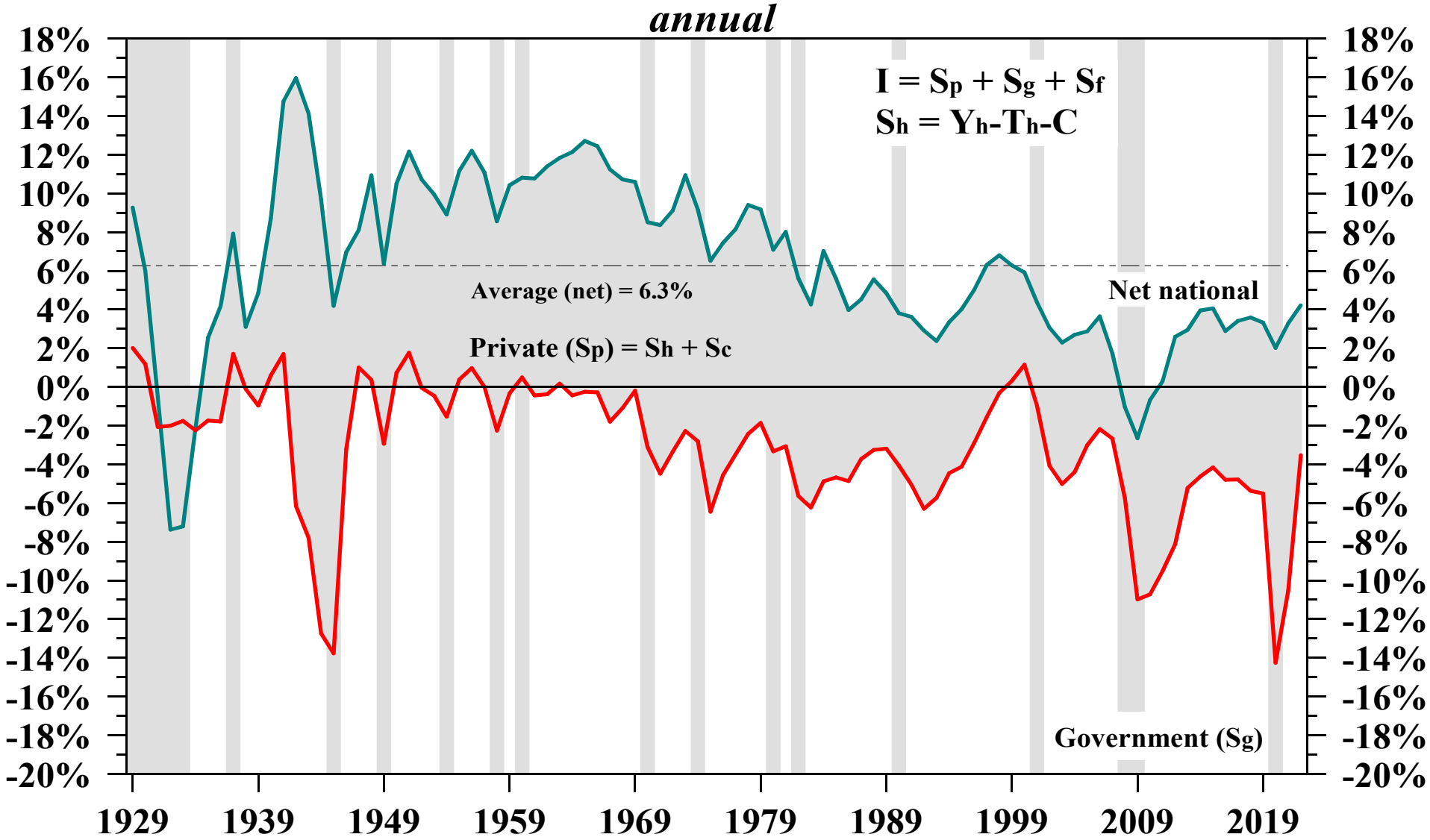
U.S. Population

annual % change



Sources: Census Bureau. Through 2021.

Net Saving by Sector as a % of Gross National Income



Sources: Bureau of Economic Analysis. Through Q1 2022. I = investment (net of depreciation), S_p = private saving, S_f = foreign saving, S_g = government saving, S_{hh} = household saving, S_c = corporate saving.

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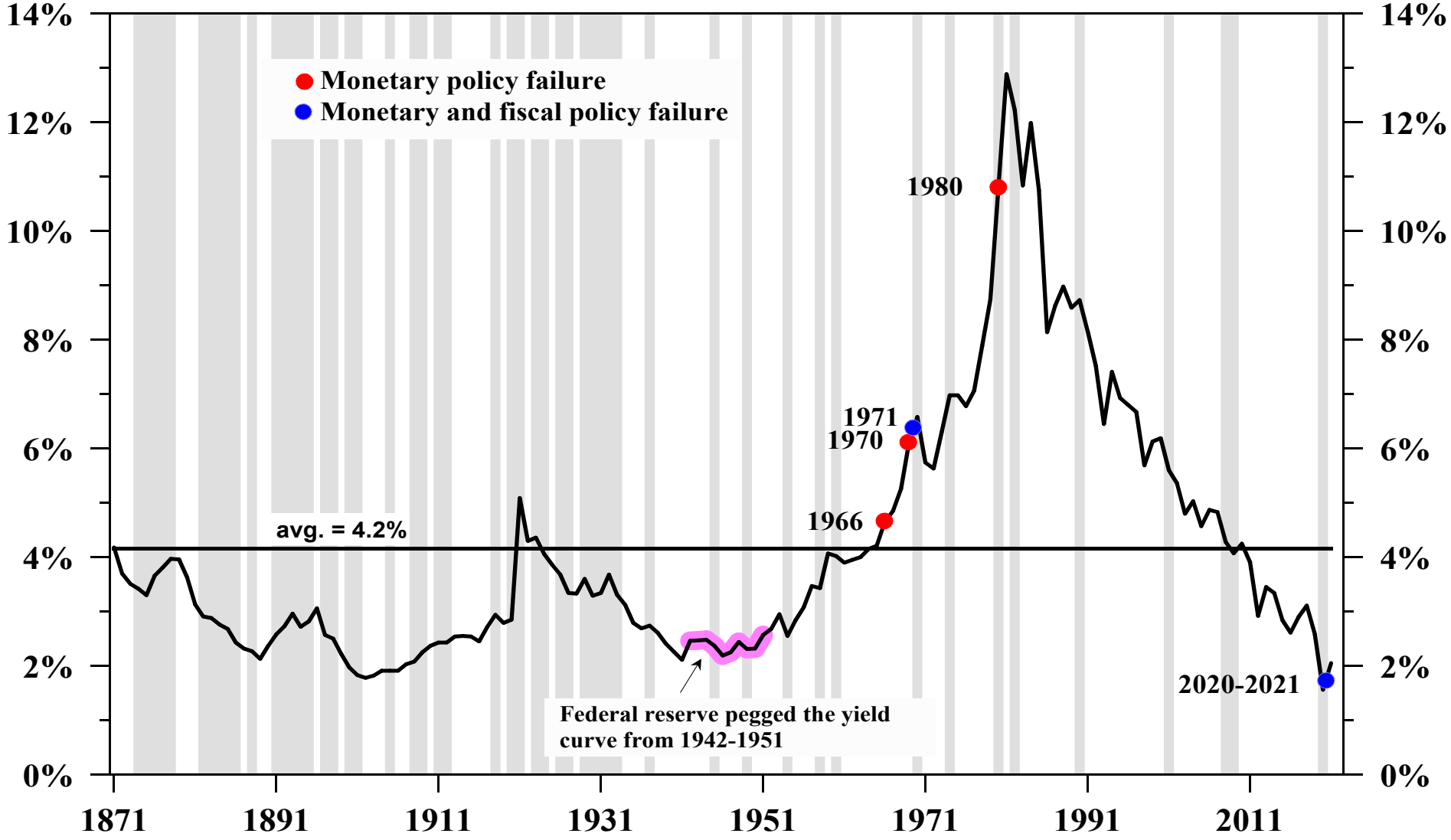
Long Term Treasury Rate 1871-2021

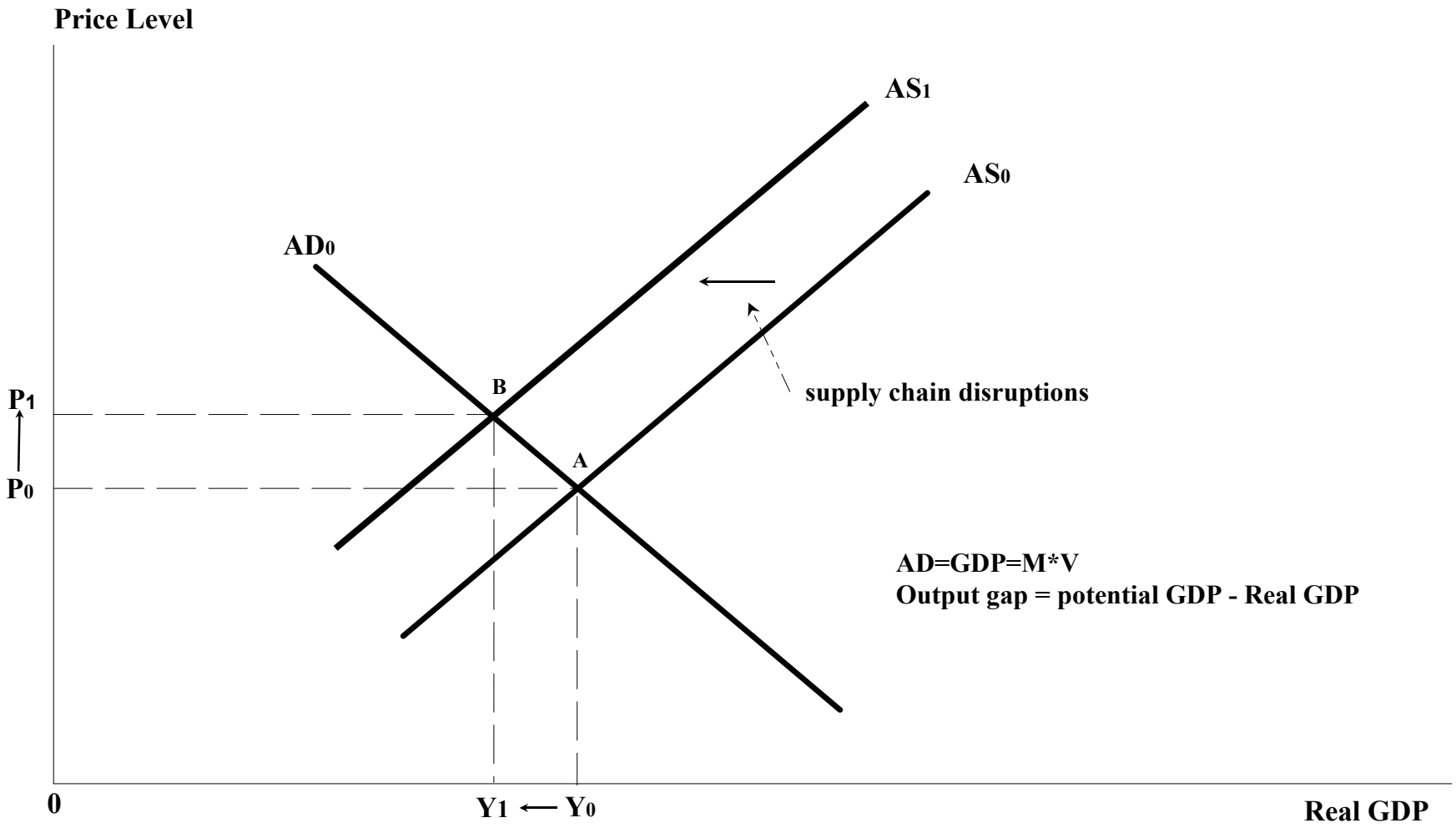
annual average



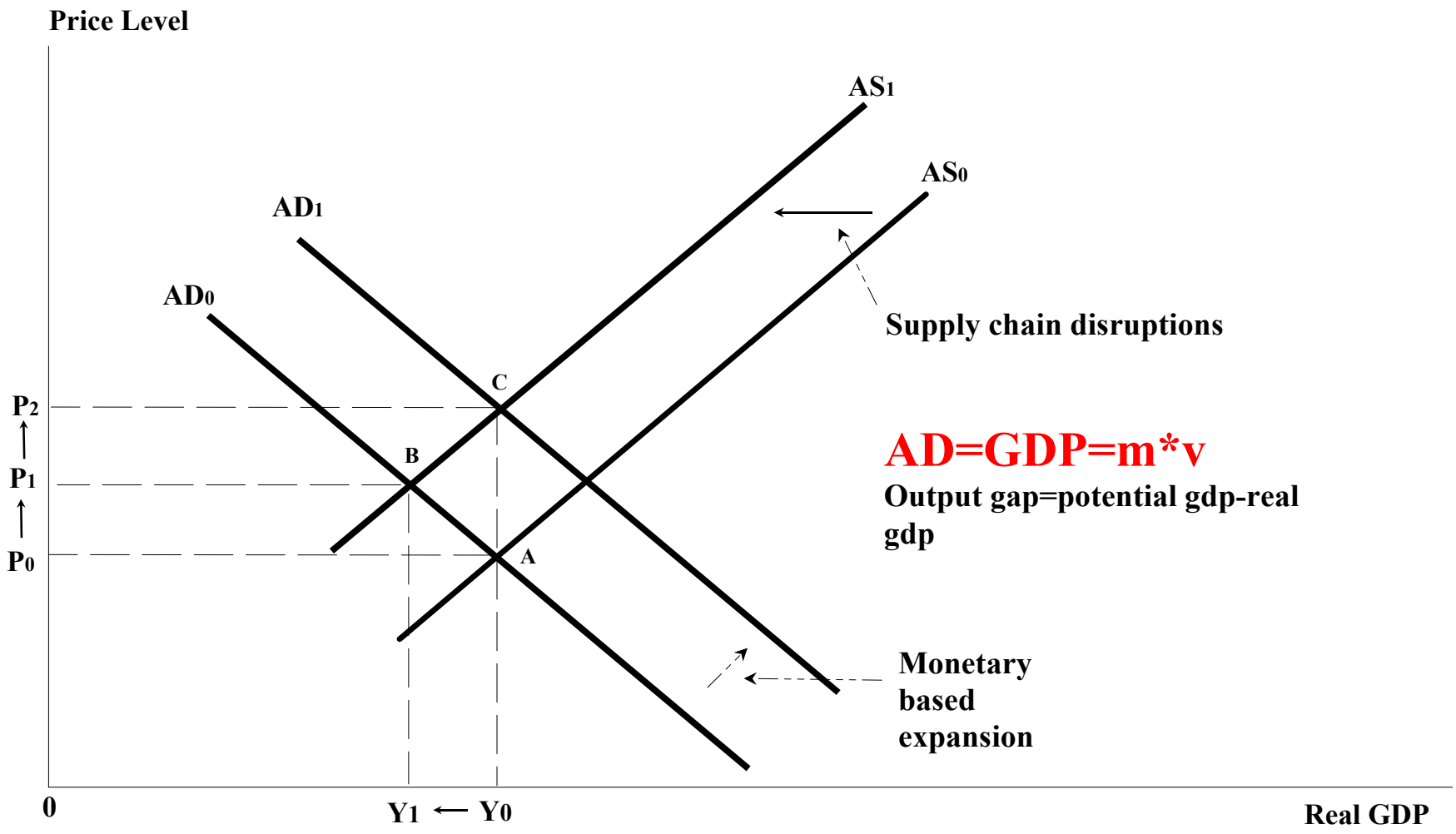
Sources: Federal Reserve Board, Homer & Sylla, Wall Street Journal. Through 2021.

Appendix

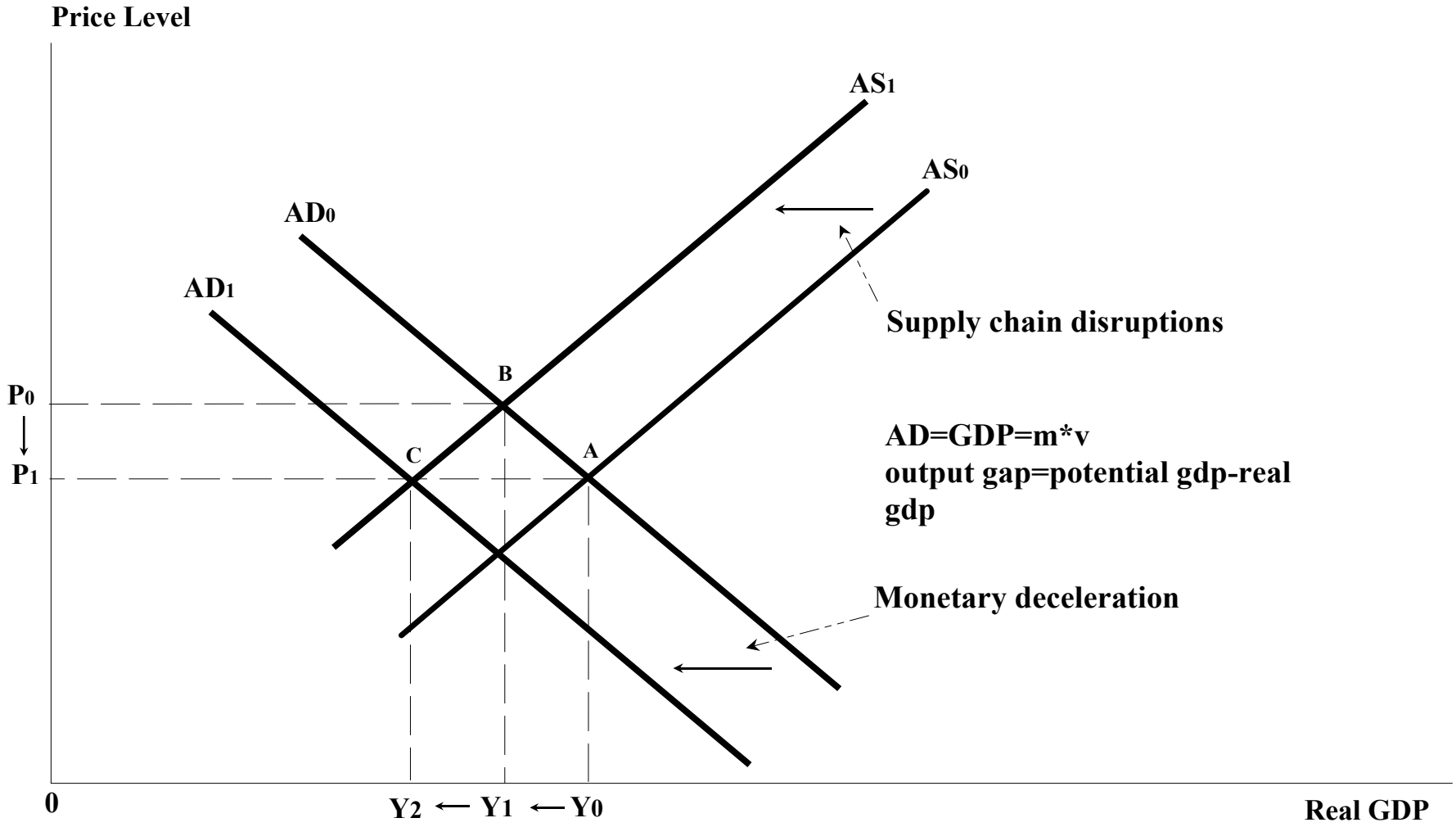
Supply Side Recession Shifts Aggregate Supply Curve Inward



In the 1970's the Aggregate Demand Curve Shifted Outward, as M2 Growth Accelerated and Velocity Was Stable, Allowing Price Increases to Spiral



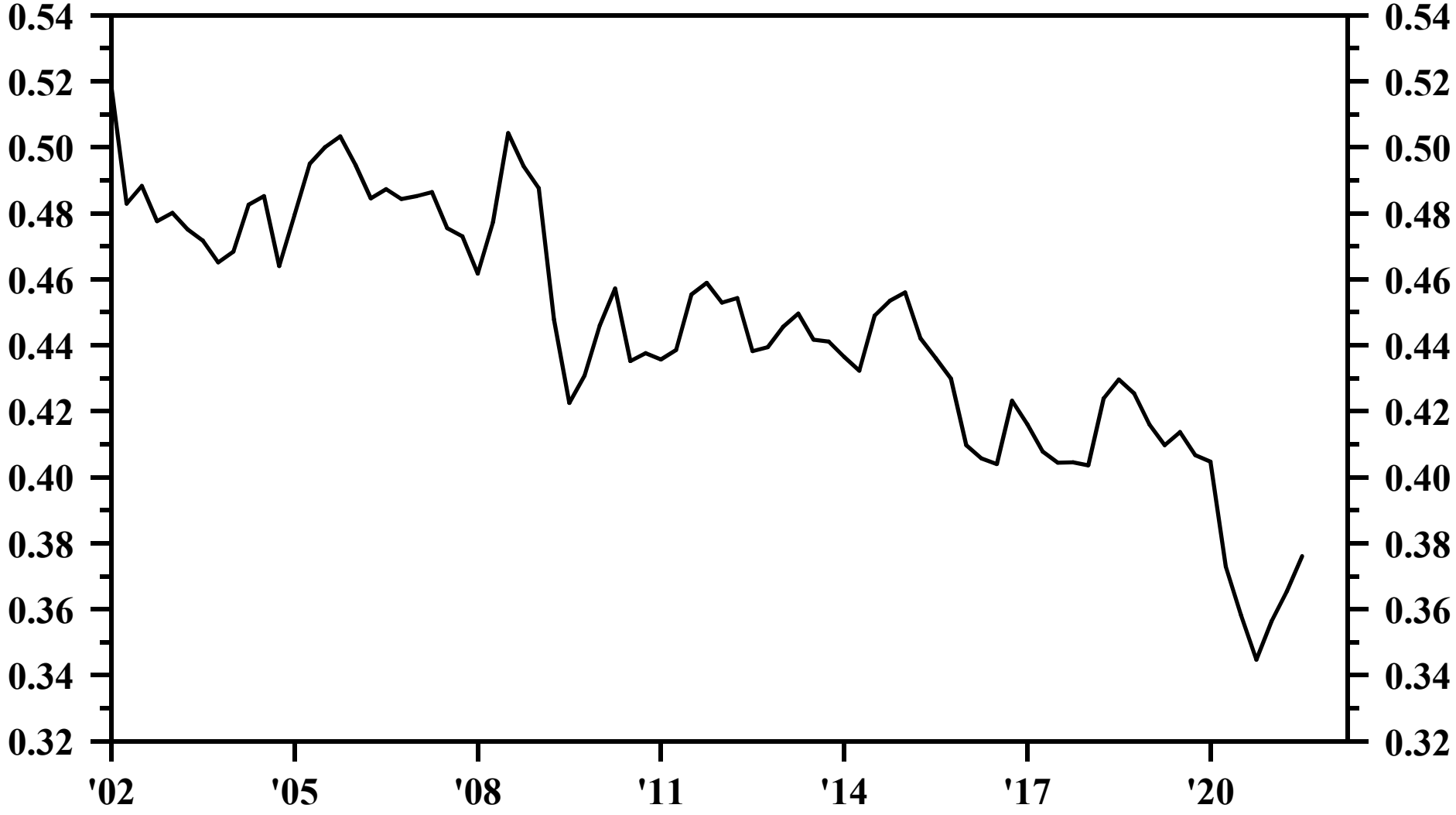
Currently, The Aggregate Demand Curve is Being Shifted Inward as M2 Growth is Decelerating and Velocity is Falling



Global Marginal Revenue Product of Debt

(i.e., GDP Per Dollar of Total Debt)

quarterly



Source: Bank for International Settlements. Through Q3 2021.

Debt Overhangs, Growth and Real Interest Rates

The study cited below links extreme sustained over indebtedness with the level of real interest rates. In this publication of the American Economic Association, the authors identify 26 historical major public debt overhang episodes in 22 advanced economies, characterized by gross public debt/GDP ratios exceeding 90% for at least five years, a requirement that eliminates purely cyclical increases in debt as well as debt caused by wars.

The main conclusions include:

1. The economic growth rate is reduced by slightly more than a third, compared to when the debt metric is not met.
2. Since 2000 the US growth rate has fallen 50% below the trend rate from 1870 to 2000, indicating that the deleterious effects are increasing disproportionately as the debt levels have escalated.
3. This research has clearly met the test of time and has been confirmed and expanded upon by other economic scholars.
4. The passage of time also confirms findings on debt overhangs and real interests.
In 2012, they write "Contrary to popular perception, we find that in 11 of the 16 debt overhang cases, real interest rates were either lower or about the same as during the lower debt/GDP years. Those waiting for financial markets to send the warning signal through higher (real) interest rates that governmental policy will be detrimental to economic performance may be waiting a long time."
5. Government debt to GDP 2021 = 129.7%, 5 year average = 114.9%

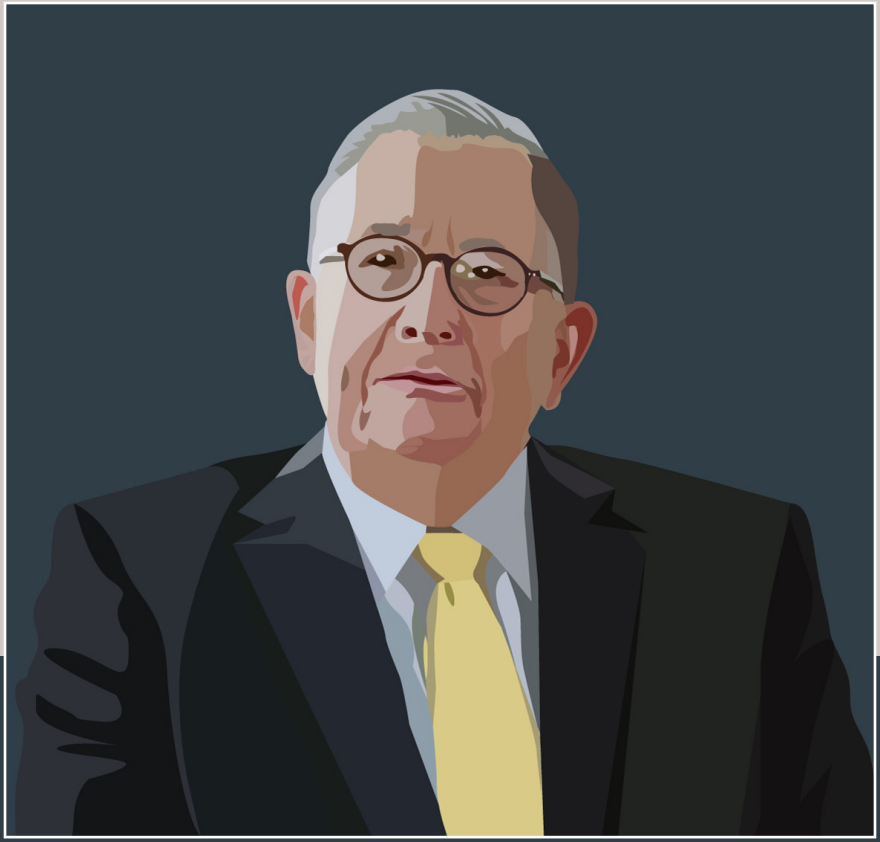
"Public Debt Overhangs: Advanced-Economy Episodes since 1800." Carmen M. Reinhart, Vincent R. Reinhart and Kenneth S. Rogoff. Journal of Economic Perspectives, Vol. 26-No. 3, Summer 2012. (pp. 69-86).

Summary of Key Findings Post 2009 Studies

1. Swedish econometricians Bergh and Henrekson, substantiate that there is a "significant negative correlation" between the size of government and economic growth. Specifically, "an increase in government size by 10 percentage points is associated with a 0.5% to 1% lower annual growth rate." This suggests that if spending increases, the government expenditure multiplier will become more negative over time. ***Andreas Bergh and Magnus Henrekson, The Journal of Economic Surveys (2011).***

2. Ilsetzki (London School of Economics), Mendoza (University of Pennsylvania), and Vegh (University of Maryland) found the government spending multiplier is sharply negative in highly indebted countries. The definition of highly indebted is central government debt exceeding 60% of GDP, a condition that is met by most of the major economies of the world.
Ethan Ilsetzki (London School of Economics), Enrique Mendoza (University of Pennsylvania), and Carlos Vegh (University of Maryland), How Big (small?) are fiscal multipliers?, Journal of Monetary Economics, March 2013.

3. Checherita and Rother investigated the average effect of government debt on per capita GDP growth <u>in twelve euro area</u> countries over a period of about four decades beginning in 1970. A government debt to GDP ratio above the turning point of 90-100% has a "deleterious" impact on long-term growth. In addition, they find that there is a <u>non-linear impact</u> of debt on growth beyond this turning point. A non-linear relationship means that as the government debt rises to higher and higher levels, the adverse growth consequences accelerate. Results across all models "show a highly statistically significant non-linear relationship between the government debt ratio and per-capita GDP for the 12 pooled euro area countries included in their sample." Moreover, confidence intervals for the debt turning point suggest that the negative growth rate effect of high debt may start from levels of around <u>70-80% of GDP</u>.
"The Impact of High and Growing Government Debt on Economic Growth, An Empirical Investigation for The Euro Area", Cristina Checherita and Philipp Rother, European Central Bank working paper, Number 1237, August 2010.



RECOMMENDED READING

ESSENTIAL DOCUMENTS IN ECONOMICS & INVESTMENTS

CURATED BY LACY H. HUNT, PH.D.

> If I have been able to see farther than others, it was because I stood on the shoulders of giants.
>
> SIR ISAAC NEWTON

FIRST THOUGHTS

Sir Issac Newton said, "if I have been able to see farther than others it was because I stood on the shoulders of giants." I too feel my work depended on the amazing effort and scholarship of many others, and I have assembled this reading list to introduce non-economists to some of the field's giants. I've edited this reading list many times over the years, and I will continue to update it because economics is a science. As our understanding increases, we must examine old beliefs. For instance, when I graduated from Temple University with a Ph.D. in 1969, fiscal and monetary policy were both considered extremely powerful tools for economic stabilization. Then, the prevailing view held that (1) a large multiplier on private economic activity occurred when the U.S. government spent borrowed funds, and (2) the velocity of money was thought to be stable, meaning that increases in money would flow directly into GDP. Since then, scholars have discredited both views. If I could give anyone starting out a piece of advice, I'd say this: do not assume that your knowledge of economics (or any subject, really) is ever complete.

Development of Economic Analysis

INGRID H. RIMA

I once gave a talk at Mary Baldwin, a women's college in Virginia, and after my lecture, when I asked if anyone had a question, almost every hand in the room shot up. I was surprised. I wondered, had I been unclear? Or said something contentious? As it turns out, all of the young women had the same question: "What can you tell us about Ingrid Rima?"

Here's what I can tell you about Ingrid H. Rima: She was extraordinary. Ingrid served as Chair of Economics at Temple when I received my Ph.D. in 1969 and I wish more people could learn from her as I did. She wrote 13 books but I always recommend her outstanding *Development of Economic Analysis* which explores how economic theory evolved. I read it for the first time decades ago, but I still use the book as a reference. New readers will get the most benefit from reading her seventh and final edition. Ingrid taught at Temple for 60 years and she remained exceedingly popular to the very end. She died at 95, ending the life of a brilliant thinker, a dear friend, and an incredible economist.

Free to Choose

MILTON AND ROSE FRIEDMAN

To learn about the great economists as well as to begin to think like an economist, this is the best starting point for someone who knows little about economics. It is a book based on a PBS series that can also be viewed. I also recommend *Capitalism and Freedom* by Nobel laureate Milton Friedman (1912 - 2006). It's tougher than *Free to Choose* but well worth the effort. If one wants to further step up their understanding of economics, choose the brilliant Thomas Sowell's (1930 -) *Applied Economics*.

Manias, Panics, and Crashes

CHARLES KINDLEBERGER

Financial market participants can ill afford not to read Kindleberger's masterpiece. I had an acquaintance with Kindleberger, who taught Ken Rogoff of Harvard University and is co-author of the superb *This Time is Different* (2009). *This Time is Different* has been corroborated, expanded and strengthened by more than two dozen research papers. I had the privilege of spending a couple of hours with Dr. Kindleberger at a three day conference in 1981 entitled Reaganomics and Stagflation. I was on the monetary and fiscal affairs panel with two other economics, including Hyman Minsky. I heard Minsky give a stream of conscious explanation of his financial instability hypothesis. I asked Dr. Kindleberger to explain what Minsky was saying. Many people, including Ben Bernanke, have linked Kindleberger and Minsky as having very similar views. Kindleberger, in my opinion, was much more complete and a much more serious thinker. However, Minsky differentiated three phases of credit: hedge, speculative and Ponzi finance, which I believe is his major contribution. It is a conundrum as to which of Minsky's article to recommend, but a good possibility is the one in *Reaganomics and Stagflation* (1983), which just so happens to include my paper, "The Causes of the 1981 - 82 Recession" (pp. 84 - 91). At the time, Reagan was blamed for the severity of the recession, but in my article, I accurately predicted the "recession stemm[ed] from seven major longer-term developments, not from [Reagan's] policies."

Economics in One Lesson

HENRY HAZLITT

Economics in One Lesson is a short introductory course written by Henry Hazlitt (1894 - 1993), first published in 1946. It is based on the work of French economist Frédéric Bastiat's essay *Ce qu'on voit et ce qu'on ne voit pas* (English: "What is Seen and What is Not Seen"). For Hazlitt and Bastiat (1801 - 1850), the essence of economics consists in looking not merely at the immediate, but at the longer effects of any act or policy; it consists in tracing the consequences of that policy, not merely for one group but for all groups. One component of this argument was the fallacy of the broken glass. If a brick is thrown into the glass of

the baker and breaks it, the baker will have to replace the glass and in the process GDP will be boosted. However, the wealth of the bakery was reduced because he had to reduce other assets or components of his wealth to replace the glass. The GDP fails to register this loss of wealth. Hazlitt wrote a companion book in 1959 entitled *The Failure of the New Economics,* which is a detailed chapter by chapter critique of all of the major aspects of Keynesian economics.

The Road to Serfdom

F. A. HAYEK

This was written in 1944 and predicted the Soviet Union would fall due to internal factors. Hayek won the Nobel in economics. Two great chapters are "The End of Truth" and "Why the Worst Rise to the Top." The latest paperback edition (on Amazon) includes a preface written by Hayek on the 25th anniversary of the original publication and Friedman's preface on the reprinting on the 50th anniversary. In the 25th anniversary edition, Hayek made no changes to the original book or to the original preface, but penned a second preface. Hayek was deceased when the 50th anniversary edition was published, but Friedman's preface is outstanding.

Macroeconomics – a Modern Approach

ROBERT BARRO

This is tough sledding, but reading it is well worth the time. Barro developed the Ricardian Equivalence Theorem. He expounded on the great classical economist David Ricardo's from the 1820s. Ricardo, who probably did more to establish economics as a profession than any other economist, including Adam Smith, the profession's founder. Ricardo was asked whether it made any difference whether the Napoleonic wars were financed by taxes or debt. He concluded that it didn't matter, although he admitted that he couldn't prove his argument. The economics profession followed Richardo until Keynes in 1936, who asserted that there was a powerful multiplier from debt-financed activities. Keynes was not in a position to prove his assertion, but now there is an overwhelming body of serious scholarly work that indicates Keynes is wrong. The breakthrough came from Barro who presents strong evidence the government expenditure multiplier was –0.01 from 1940 through the early 2000s, page 307. A growing body of literature cited in Hoisington Investment Management's quarterly letter indicates the multiplier is more negative currently and the trend is even more negative as the US has become more indebted. Interestingly, Ricardo developed the law of diminishing returns that indicates overuse of a factor production (like debt capital) will lead to declines in real economic output after initial gains. Diminishing returns is a non-linear concept and substantial econometric evidence confirms that the relationship between debt and economic activity is nonlinear, increasing, flat, and diminishing returns describe a parabola. This is strong evidence that economics is not the same as accounting.

The Deleterious Effects of Excessive Indebtedness

CARMEN REINHART, VINCENT REINHART AND KENNETH ROGOFF

This outstanding team of scholars (which will be referred to as RR&R), in the Summer 2012 issue of *Journal of Economic Perspectives* linked extreme sustained over indebtedness with the level of interest rates. In this publication of the *American Economic Association*, they identify 26 historical major public debt overhang episodes in 22 advanced economies, characterized by gross public debt/GDP ratios exceeding 90% for at least five years, a requirement that eliminates purely cyclical increases in debt as well as debt caused by wars. They find that the economic growth rate is reduced by slightly more than a third, compared when the debt metric is not met. Since 2000, as the US has become increasingly over indebted, the growth rate has fallen 50% below the trend rate from 1870 to 2000. This is research that has clearly met the test of time and has been confirmed and expanded upon by several other economic scholars. The passage of time also confirms RR&R's findings on debt overhangs and real interests. In 2012, they write "Contrary to popular perception, we find that in 11 of the 16 debt overhang cases, real interest rates were either lower or about the same as during the lower debt/GDP years. Those waiting for financial markets to send the warning signal through higher (real) interest rates that governmental policy will be detrimental to economic performance may be waiting a long time."

House of Debt

ATIF MIAN AND AMIR SUFI

The authors Atif Mian and Amir Sufi built upon and advanced the work of Irving Fisher, Charles P. Kindleberger, Carmen Reinhardt, Kenneth Rogoff, Alan Taylor, and others by providing renewed evidence on the critical role that excessive consumer indebtedness can play in destabilizing economic activity. In this 2014 book, they pull together considerable scholarly research while enhancing this body of work that has all too frequently been ignored. If Federal Reserve leaders had understood Mian and Sufi's perhaps the Fed would not have stood idly by as debt careened out of control prior to the Great Financial Crisis (GFC) of 2008 - 2009.

The Ascent of Money

NIALL FERGUSON

I recommend the best-selling book *The Ascent of Money* by Niall Ferguson, former Harvard Professor and now at the Hoover Institute at Stanford. This was made into a PBS series narrated by Ferguson. He also authored a prize winning study entitled Empires on the Verge of Chaos. He documents how the Mesopotamian, Roman, Bourbon and British empires collapsed under the weight of extreme over-indebtedness. In his famous paper "Of Public Credit" (1752) David Hume, of whom Ingrid Rima said the

Enlightenment could not have happened without him, reached the same conclusion as Ferguson. He summarized the outcome of extreme over-indebtedness with the "when a state has mortgaged all of its future revenues, the state lapses into tranquility, languor, and impotence."

Essays on the Great Depression

BEN BERNANKE

This book built former Fed Chairman Ben Bernanke's reputation as our leading expert on the Great Depression. Benanke, like Milton Friedman, blamed the Great Depression on a horrific monetary policy failure, not extreme over-indebtedness. His argument is not convincing. In this work, Bernanke argued that Fisher and Kindleberger should be rejected because their work assumed irrational behavior (i.e, that a rational person would not become excessively indebted) and that he will take rational economics as far as it will go. Working in the financial markets for five decades and observing the extreme volatility convinces me that major actions are constantly being made on little analysis. My father was a Ph.D. psychologist (University of Texas 1941). I was a behaviorist long before the term emerged and years before I became an economist. One of my greatest regrets is that I didn't pay as close attention to my father's lectures at meal times as I should have.

Getting Off Track

JOHN TAYLOR

Getting Off Track (2009) by John Taylor of Stanford University is well written and a quick read. Taylor has produced other extremely important research and is one of America's greatest economists. I've always felt that John Taylor was the best choice to serve as chair of the Federal Reserve Board.

The Theory of Interest

IRVING FISHER

Milton Friedman called Irving Fisher (1867 - 1947) America's greatest economist and Josef Schumpeter, Fisher's contemporary, said his intellect was unsurpassed. Schumpeter was well qualified to make this assessment as he was one of America's greatest economists and originator of the concept of "creative destruction." Two of his many books are highly recommended: *The Theory of Interest* (1930) and *The Purchasing Power of Money* (1911). His 1933 article in *Econometrica* "The Debt Deflation Theory of Great Depressions," is the best explanation of the Great Depression of the 1920s and 1930s. The 1911 book gives us the equation of exchange, which is nominal GDP (Y) equals money times the velocity of money, and the 1930 book gives us the Fisher equation which says the long risk-free bond yields equals the real

rate plus expected inflation. Thus, these two books give us two of the major pillars of macroeconomics. In addition to being one of the founders of neoclassical economics, Richard H. Thaler, co-founder of behavioral economics and a Nobel laureate wrote Fisher "should also be considered a pioneer of what I will call 'modern behavioral economics.'" Thaler's short essay making this case is found in the May 1997 issue of the *American Economic Review*.

The Definitive History of the Fed

ALAN MELTZER

The most definitive study of the Fed's operations is widely considered to be the multi-volume series, *A History of the Federal Reserve* written by the late Carnegie Mellon economist Alan Meltzer (1928 - 2017). Volume I examines the span from the creation of the Fed in 1913 until the accord with the Treasury in 1951. Volume II, Book 1 covers the years from the accord in 1951 until 1969, while Volume II, Book 2 discusses the period from 1970 until the end of the great inflation period in the mid-1980s. In this scholarly historical examination, Meltzer, on the basis of price and financial stability, gave the Fed high marks in only one-fourth of its years of operation. Meltzer, working closely with Karl Brunner, made many seminal contributions to economics, including identifying the algebraic determinants of the money multiplier and outlining the transmission of monetary policy actions to the real economy.

In his 2014 paper, "Recent Major Fed Errors and Better Alternatives," Meltzer summarized the root cause of the Fed's policy errors and long record of failed forecasts as follows: "The Fed's error was to rely on less reliable models like the Phillips Curve … that ignore or severely limit the role of money, credit, and relative prices." By focusing on the Phillips Curve, Meltzer contends that the Federal Open Market Committee (FOMC) overemphasizes information in monthly and quarterly data periods while giving insufficient attention to persistent trends in money and credit, which are the very aggregates that the Fed supplies. To paraphrase Meltzer, by relying on the Phillips Curve, the FOMC avoids developing a strategic view of their role and the complex world in which they operate. As the massive credit buildup leading up to the GFC illustrates, the Phillips Curve mandate also diverts the Fed's attention from important regulatory matters that can have extremely consequential and long-lasting macro implications.

Other Brilliant Thinkers

ROBERT MUNDELL, MICHAEL SPENCE, AND RONALD MCKINNON

An extremely important book is *Monetary Theory; Inflation, Interest and Growth* in the world economy by the late Robert Mundell, a Nobel prize winner in economics. Mundel created the model for the euro-currency zone and provided a great amount of original insight into the dynamics of monetary policy. Michael Spence, long-time dean of the Business School at Standard also won the Nobel in economics.

He is most well known for his work on the effects of signaling. But, for a macroeconomist, my highest recommendation goes to an article that he wrote with Keven Warsh, a former member of the Board of Governors of the Federal Reserve System. The thrust of "Where Did Growth Go?" in the book *Growing Global: Lessons for the New Enterprise*, The Center for Global Enterprise, November 2015, Spence and his co-author made four basic arguments that the Fed's large scale purchases served to redirect capital from the real domestic economy to financial assets. First, CEOs can't be certain about the consequences of unwinding Fed purchases of securities and change in forward guidance on the real economy, resulting in risk aversion and preference for shorter-term commitments, such as financial assets; Second, financial assets are more liquid. In a financial crisis, firms can't get a bid for capital equipment or other real assets. Financial assets can be sold if survival is at stake; third, asset purchases reduce the volatility of financial markets but not the volatility of real asset prices, meaning actual macro risk may be the highest when market measures of volatility are the lowest; and fourth, asset purchases work by a signaling effect rather than by any effect of policy operations on assets prices. Market participants thus believe asset purchases put a floor under financial asset prices, but not real assets. Thus, resources are shifted into financial assets from real assets, which are more critical for a rising standard of living.

Except for an accident that led to his premature death, Ronald McKinnon, Standford Professor, might have won the Nobel Prize. As far I am concerned, he deserved it, but this award is not made posthumously. In *Money and Capital in Economic Development*, he showed all too frequently there was too much tolerance of inflation and state allocation of credit. Thus, politicians all too often directed the flow of credit to suit their own needs, rather than having the markets allocate resources. Equally important is *The Order of Economic Liberalization: Financial Control in the Transition to a Market Economy*. In this book, he outlines strategies to escape financial repression. Financial repression harms savers, particularly those with modest incomes, when policies are followed that hold return to savers below that of inflation. It thereby forces many with limited ability to take risks that should not be taken given their income and wealth profiles. The government and business sectors do benefit, but repression has generally occurred in an environment of sub-economic growth.

The Rise and Fall of American Economic Growth

ROBERT A GORDON

Gordon, a professor at Northwestern University, explains the critical difference between revolutionary innovations and evolutionary ones. Current inventions are not as momentous in the sense of such historic achievements as the internal combustion engine, the transmission of electricity, modern sanitation, modern communication, and new discoveries of pharmaceuticals and chemistry, all of which enhanced the demand for labor and natural resources. Evolutionary technology, currently being experienced, diminishes the demand for labor and natural resources. For example, the impact on check-out counters is already evident, as are assembly lines manned by robots. If the supply chain disruptions caused by the pandemic lead to more domestic manufacturing, these plants will employ robots and all of the latest technological

developments. This would shrink the worldwide demand for labor and global income growth, although there may be some benefit to regional countries. Evolutionary inventions clearly add to the joys of life, but not simultaneously providing the wherewithal for all to benefit.

A Great Sociologist

ROBERT K. MERTON

The late American sociologist, Robert K. Merton (1910 - 2003), who originated the concept of "unintended consequences," "reference group," "self-fulfilling prophecy," and "role model," identified the problems when policy implements theories of grand design, which I believe are problems that the Fed is currently facing. Merton, who also wrote a best-selling book, *On the Shoulders of Giants*, developed the fallacy of the theories of grand design. He believed that larger theories fail because they are too distant for the policymakers to realize how actions and reactions will change from the way they have typically operated. He felt that when dealing with broader, more abstract, and untested theories; no effective way exists to measure their success or failure in advance. Theories of the middle range do not suffer from that drawback. He used the example of a man who enters a mountainside cave and proceeds to follow what appears to be a clear path. After reaching the end of this path, he attempts to retrace his steps, only to find his journey has caused a cave slide, trapping him. In 2020, the Fed and the law-making establishment coordinated monetary and fiscal policy to alleviate the disruptions of the Pandemic. Initially, the actions were hailed as successful. However, the inflation rate surged to the fastest pace since the 1980s, greatly damaging the standing of living of 86% of the households that earn less than $150,000. Moreover, the Fed was forced to try to reverse itself with a program of monetary restraint, programs that have only achieved a soft landing about 10% of the time since the Fed was founded in 1913. (Merton's son, MIT Professor of Economics, won the Nobel Prize in Economics for the Merton-Scholes model).

NOTES

I did not list Milton Friedman's numerous books and articles on monetary economics nor J.M. Keynes' *General Theory* (1936) because I consider them both to be flawed. Many might find this surprising since Keynes and Friedman are considered to be polar opposites. While I learned a great deal from both men, Friedman's models are built on the assumption that the velocity of money is stable; which was true from the early 1950s to the early 1980s when Friedman was doing his extensive empirical research, but no longer. I did not include a recommendation on Keynes because his assertions concerning the government expenditure model are not valid. For very lightly indebted governments, there is a small multiplier effect but as debt levels increase it goes away. For lightly indebted countries monetary and fiscal policy decisions can only boost economic growth over a limited range. Monetary policy does however have the capacity to control outbursts of inflation, but not without severe output loss.

FINAL THOUGHTS

My final recommendations, books I have returned to countless times, are from the pen of two deceased economists who did so much for my understanding of the way the world works and who played a major role in generating my love for economics. Both required their students to write term papers, teaching us not only the value of hypothesis testing, but the critical importance of delivery. First, is a jewel of a book, *The American Monetary System*, by Dr. Robert A. Degen. Bob was chair of the economics department of Sewanee. Secondly, is *Money, Flow of Funds and Economic Policy*, by the late Dr. Nathanial Jackendoff, Temple University's former Finance Department Chair who supervised my doctoral dissertation. In the preface of my first book, *Dynamics of Forecasting Financial Cycles* (1976), I wrote of Nat's impact on my grasp of monetary economics, which remains the focus of my career nearly four and half decades later.

> "Do not assume that your knowledge of economics (or any subject, really) is ever complete."
>
> DR. LACY H. HUNT

> Mr. Wilson bores me with his Fourteen Points; why, God Almighty has only Ten!
>
> GEORGES CLEMENCEAU

TEN CONSIDERATIONS

FROM AN ECONOMIST / FIXED INCOME INVESTOR

BY LACY H. HUNT, PH.D.

1. *As all investments involve risk, investors must understand their risk profile.*

Your investment risk profile depends on where you are in your life and the amount of assets you have available to invest. In the early stages of a working career you tend to be highly risk-averse. As you advance, and your assets and income rise, you have more capacity to take risk. Some investors progress to a very high level of speculation. By retirement, however, the taste for risk diminishes. Many investors return to the highly risk-averse posture they adopted when they first started out. All investments involve risk. Some risks are definitely worth taking because the opportunity is splendid and the likely losses, small. The key to reducing investment risk to the minimum is to understand the nature of the investment and how it responds to economic fluctuations. When that is the case, you can profit from opportunities that emerge from the economy's ebb and inflow. If you do not have that understanding derived from sufficient homework then, investing will be difficult and mistakes will be made.

2. *Developing a love for investing is something like becoming an avid fan.*

From the time I was old enough to play until middle age, I was an avid baseball fan. Being a loyal Texan growing up in Houston, I rooted for my hometown heroes. First, the Houston Buffaloes with the long gone Texas League, followed by the Colt 45's, and ultimately the Astros. Most baseball fans change from casual followers of the local nine into avid lovers of the sport when they understand what is printed in the agate type on the back page of the daily sports section. They begin to read the box scores, daily standings and lists of major league statistical leaders they can read and comprehend such hieroglyphics as "IP" and "RBI"; they know whether "SB" stands for "stolen base" or "sacrifice bunt." Becoming familiar with the data is an important step in acquiring knowledge through the use of what is generally known as the scientific method — the formulating of the idea or hypothesis and then testing the hypothesis with the data.

3. *You need to embrace the complexities of successful investment.*

In pursuing success, one must often go against the consensus and to do that you have to understand the complexities set forth. Do not run from them by trying to invest on the basis of simple nostrums or of seemingly simple propositions. The provided reading list deals with some of the most important complexities of macroeconomics.

4. *Macroeconomics and investment are like everything else.*

Our knowledge and understanding does not stand still. If you are not familiar with Joseph

Schumpeter's process of "creative destruction," you to need to be. On completing my Ph.D. in 1969, my professors said that I had a state of the art education in economics and that I was well equipped with a toolbox of analytical techniques and intellectual thought processes. But, they quickly said it was my responsibility to stay abreast of the advances that in the science of my profession would surely occur. I knew change was coming and was looking forward to it, but the nature of the advancements have always been thrilling even when it meant I had to discard old concepts acquired from many hours of study. When the facts change, be prepared to embrace the change as part of humankind's history. Take time to study the scholarly research that is constantly emerging even if the effort is arduous. Judge this against the views of the great thinkers of humankind. Many of these thinkers understood the complexity of current issues even though they did not have the data, mathematical techniques and computer power that we have.

5. *Over the years, my investment style has taken a steadily longer time horizon.*

Much of what happens over the short run is dictated by noise and market reactions to information that is not that relevant. My advice is to view the economy and the investment markets from 30,000 feet rather than from three feet.

6. *For the bond investor, inflationary expectations will dominate the multi-year trends.*

The real rate is extremely volatile but it is not predictable. Which path to take is like a choosing a college course with two competing majors – one in volatile and short-term swings and the other in multiyear trends. I choose the later because the daily, monthly and even yearly movements in the bond market are dominated by factors that are not predictable. But, over the long run the real rate will be stable and inflationary expectations will ultimately prevail in determining the level of bond yields.

7. *The worst investments that I have made occurred when I took the easy road out and lined up with the conventional wisdom.*

Lining up with the conventional wisdom was usually a shortcut from doing the homework required to understand the nature of the investment and its sensitivity to economic change. This doesn't mean that the conventional wisdom is always wrong, but effort is required to determine when it is right or wrong.

The conventional wisdom is always comfortable when either making an investment or giving advice on economic conditions. However, exiting from investments and propositions based on the conventional wisdom is nearly always difficult and costly. Take the time to read *Group Think* by Yale social psychologist Irving Janis, though deceased his wisdom lives on. It will be well worth your time. The best investments and economic advice that I have given occurred on those occasions when I diverged strongly from the conventional wisdom. Making this decision was never easy or quick. As Margaret Thatcher famously said, "what great cause would have been fought and won under the banner: 'I stand for consensus?'"

8. *I am most proud that I was able to forecast the rapid inflation of the late 1960s to early 1980s, then reverse course, identify and stay with the dis-inflationary trend from the early 1980s to the present.*

Those who followed my advice were correctly positioned for the major bear and bull bond markets of my life. There were many short-term intervals when I was wrong. Those occurrences were painful but I remained focused on the longer run trends, which is the strength of rigorous economic analysis.

9. *The thing that I will never do again is to go outside the area of my economic expertize and specialization.*

This holds for my own investments as well as in giving advice to others on how they should invest in fields in which I do not specialize.

10. *Stay away from questions about your preference concerning political parties and candidates.*

Expressing views on how policy actions will influence trends in the economy and the bond market is not only right and appropriate but also necessary. But, that does not include endorsing parties or candidates. An investment managers job is to execute fiduciary responsibility to clients. That over-riding obligation means to stay above the political fray.

> "Ignore the consensus and embrace the complexities in economics and in life. There are no single shot theories that work, no silver bullets — just perseverance."
>
> DR. LACY H. HUNT

LACY H. HUNT, PH.D.

Dr. Lacy H. Hunt, an internationally known and award-winning economist, is Executive Vice President and Chief Economist of Hoisington Investment Management Company (HIMCO), a firm that manages over $5 billion for pension funds, endowments, insurance companies and others.

Dr. Hunt is the author of two books and numerous articles in leading magazines, periodicals and scholarly journals. Included among the publishers of his articles are: *Barron's, The Wall Street Journal, The New York Times, The Christian Science Monitor,* the *Journal of Finance*, the *Financial Analysts Journal* and the *Journal of Portfolio Management*. The Board of Governors of the Federal Reserve System and the Dallas Federal Reserve Bank both published his research.

Dr. Hunt built the first large scale econometric model of the U.S. Financial Markets. This model, based on monthly data, is the subject of his first book, *Dynamics of Forecasting Financial Cycles*.

Francis H. Shott, Chief Economist of the Equitable Life Assurance Society, wrote in his 1977 review of Dr. Hunt's book in the *Financial Analysts Journal*, "With equal patience and adeptness…there is enough information…to provide workable equations based on reasonable hypotheses, that will yield forecasts of the money supply, commercial bank and thrift institution assets and liabilities, and a great number of short- and long-term interest rates."

Lindley H. Clark, Jr, the economic news editor of *The Wall Street Journal*, wrote in his column "Speaking of Business," Dr. Hunt's book offers "good advice to the Fed," in *Dynamics of Forecasting Financial Cycles*. Dr. Hunt "does not believe that econometric models offer easy answers to all the questions in financial markets, let alone the entire economy, writing, 'Econometric modeling...is a tool that can be used with other analytical techniques.'" This statement has been true of Dr. Hunt's entire career.

Dr. Hunt also developed a financial sector econometric model for the other members of the G7 while at Chase Econometrics.

In reviewing Dr. Hunt's second book, *A Time to Be Rich,* Jim Henderson, the managing editor of *USA Today's* print Money section, wrote, "the problem with most books about investments is they do a good job of describing what you can do, but leave it to you to figure out when. The problem with most books about economics is they do a good job explaining how the economy works, but leave it to you to apply that knowledge to your investments. Finally, there's one book that solves both problems. In *A Time to Be Rich*, economist Lacy H. Hunt does a superb job of explaining in layman's language the various phases of the economic cycle, and - most importantly - when and where you should reposition your investments to take advantage of them. That's no mean feat. Economists aren't noted for the plainness of their English."

The Wall Street Journal, The New York Times, BusinessWeek, Barron's, Time, Newsweek, U.S. News and *World Report, Investor's Business Daily* and many other domestic periodicals have quoted Dr. Hunt. Among the foreign press, Dr. Hunt's views have appeared in *The Financial Times*, the *Nihon Keizai Shinbun*, the *South China Post*, *The International Herald Tribune* and *The Straight Times*. He has been a guest on PBS's *The Nightly Business Report*, *The News Hour*, and *Wall Street Week*. He has been on *CNN*'s *Moneyline* and *Business Morning* and on *CNBC's Squawk Box* and *World Business*. He has also appeared on *CBS Evening News*, *NBC's Today Show*, and *ABC's World News Tonight*.

He has made numerous presentations in all the major financial and economic centers in Europe, Asia, the Middle East, Africa and North America. He has appeared on radio and television outside of the United States, including *The BBC*, *NHK* and *TV Tokyo*. Dr. Hunt has testified before various committees of Congress, including House Ways and Means, Senate Finance and Senate Banking.

Previously, Lacy was Chief U.S. Economist for the HSBC Group, one of the world's largest banks, Executive Vice President and Chief Economist at Fidelity Bank and Vice President for Monetary Economics at Chase Econometrics Associates, Inc. Lacy considers himself fortunate that he had the opportunity of working for two firms led by great bankers: David Rockefeller (Chase) and Sir William Purvis (HSBC).

A native of Texas, Dr. Hunt has served as Senior Economist for the Federal Reserve Bank of Dallas. While at the Dallas Fed, he served on the Federal Reserve System Committees: Financial Analysis and International Economics. He successfully completed the training program at the Federal Reserve Bank of New York. When he entered the Fed, William McChesney Martin was grappling with a severe inflation and when he left Arthur Burns was also trying to contain rampant price increases. At the Fidelity Bank of Philadelphia, he had the responsibility for managing the Trust Department's Comingled Fixed Income Fund in the 1970s and early 1980s. This fund produced one of the highest returns during this inflationary era.

He earned his BA from Sewanee: The University of the South (1964), his MBA from the Wharton School of the University of Pennsylvania (1966), and his Ph.D. in Economics from the Fox School of Business and Management of Temple University (1969). From Sewanee, he received an honorary Doctor of Civil Laws in 2013 and their Distinguished Alumnus Award in 2016. Dr. Hunt served on the Board of Trustees of Temple University from 1987 to 2010 and is now an honorary life trustee. He received the Distinguished Alumnus Award from the College of Liberal Arts of Temple University in 2018.

He received the Abramson Award from the National Association for Business Economics for "outstanding contributions in the field of business economics." He is a life member of the American Finance Association. He was a member of the Economic Advisory Board of the American Bankers Association and Chairman of the Economic Advisory Board of the Pennsylvania Bankers Association. He served on the Monetary and Fiscal Policy Affairs Committee of the National Chamber of Commerce. He was a member of The Money Marketeers of New York University.

The honorary doctorate from Sewanee reads "His career path has included stops at some of the most

powerful financial institutions in the country, where he has not only influenced internal investment policy but has left an indelible mark on the nation's economic policy through his publications, speeches and appearances in the national media."

TRACK RECORD

Lacy Hunt correctly predicted the bear bond market from 1977 to the fall of 1981. Catching the turn, he switched to a bullish position in the fall of 1981, when long-term interest rates would begin a cyclical decline that lasted until 1987. He advised his clients of the accelerating inflation that began in 1977, parting company with the prevailing consensus. But, he was right as inflation surged to all-time highs in the early 1980s. A June 18, 1983, front-page *American Banker* article, authored by Robert M. Garsson, entitled "Fidelity Bank Tops Bank Collective Bond Funds," stated "Philadelphia's Fidelity Bank earned top honors with a 20% return in the 12 months ended March 31." The flagship fixed-income fund was first for the 5 years ending "with a return of 55%," more than double the bond market's benchmark return for the same period. The article, quoting a Fidelity Bank official, "credited...active market-timing approach and the econometric forecasts of Lacy Hunt, the bank's chief economist, for the performance."
"Few economists have the long-term track record of Lacy Hunt at Hoisington Investment Management. For more than three decades, Hunt has held the view that U.S. Treasury yields would fall, fall and then fall some more. That was true when the 30-year bond yielded 9% in 1990, 6.75% in 2000, 4.5% in 2010 and now 1.4% in 2020" (Brian Chappatta, *Bloomberg*).

"While many fund managers and analysts have been predicting bond yields would move higher as the U.S. economy picks up steam and the Federal Reserve prepares to wind down its bond-buying stimulus program...Mr. Hunt says the U.S. debt burden will continue to weigh on rates for many years, pushing bond yields down, regardless of actions central bankers around the globe might take to reflate economic growth" (Tom Lauricella, *The Wall Street Journal)*.

"'The Fed is out of the game,' said Mr. Hunt, who started his career in 1969 at the Federal Reserve Bank of Dallas. 'I don't think the Fed is going to raise rates. All they can do is hold rates here for longer and longer time periods'" (Tom Lauricella, *The Wall Street Journal)*.

"Monetary policy—even the unprecedented and aggressive stimulus efforts by the Fed and other major central banks—is ineffective against economies burdened by too much debt, he says. Meaningful changes to government spending and tax policies can be more effective, he says, 'but they require shared sacrifice and strong political will.' The result of the debt overhang, he says, has been a U.S. economy stuck in slow-growth mode, with little wage inflation and shrinking corporate profits. Mr. Hunt predicts the yield on the U.S. Treasury 30-year bond ultimately will fall to below 2%, as expectations for higher inflation vanish," and the rates did that in 2020 and again in 2021 (Tom Lauricella, *The Wall Street Journal)*.

Lacy and his wife JK (Janet Kay) live in Austin, Texas. They have four daughters, two sons, three grandsons and one granddaughter.

BOOKS & NOTABLE ARTICLES

BOOKS

- *Dynamics of Forecasting Financial Cycles: Theory, Technique, and Implementation*, Lacy H. Hunt; JAI Press, c1976.
- *A Time to Be Rich*, Lacy H. Hunt; Rawson Associates, Publishers Inc., a division of Macmillan Publishing Company, c1987

NOTABLE ARTICLES

- "Alternative Econometric Models for the Yield on Long-Term Corporate Bonds." Lacy H. Hunt; *Business Economics*, vol. 8, no. 4, 1973, pp. 31-38.
- "Bank Credit and the Money Stock: Their Roles in the Determination of Income in the Post Accord Period." Lacy H. Hunt; *The Journal of Finance*, vol. 29, no. 3, 1974, pp. 941-54.
- "Evaluating Movements in the Reserve Aggregates." Lacy H. Hunt; *Financial Analysts Journal*, vol. 29, no. 3, 1973, pp. 52-63.
- "Determinants of the Dividend Yield." Lacy H. Hunt; *The Journal of Portfolio Management*, Spring 1977, 3 (3) pp. 43-48.
- "An Antiquated, Irrelevant Index." Lacy H. Hunt; *The Wall Street Journal, 29 March 1988, (Copyright (c) 1988, Dow Jones & Co., Inc.).*
- "Forecasting Inflation; The Fed's New Tool Just Doesn't Work." Lacy H. Hunt; *The New York Times*, Oct 22, 1989.
- "Estimating the Stock/Bond Risk Premium." Lacy H. Hunt & David M. Hoisington; *Journal of Portfolio Management*, 29, no. 2 (Winter 2003): pp. 28–34.

RECOMMENDED READING

ESSENTIAL DOCUMENTS IN ECONOMICS & INVESTMENTS

CURATED BY LACY H. HUNT, PH.D.