



Will Monetary Restraint Overcome the Administration's Proposed Economic Initiatives?

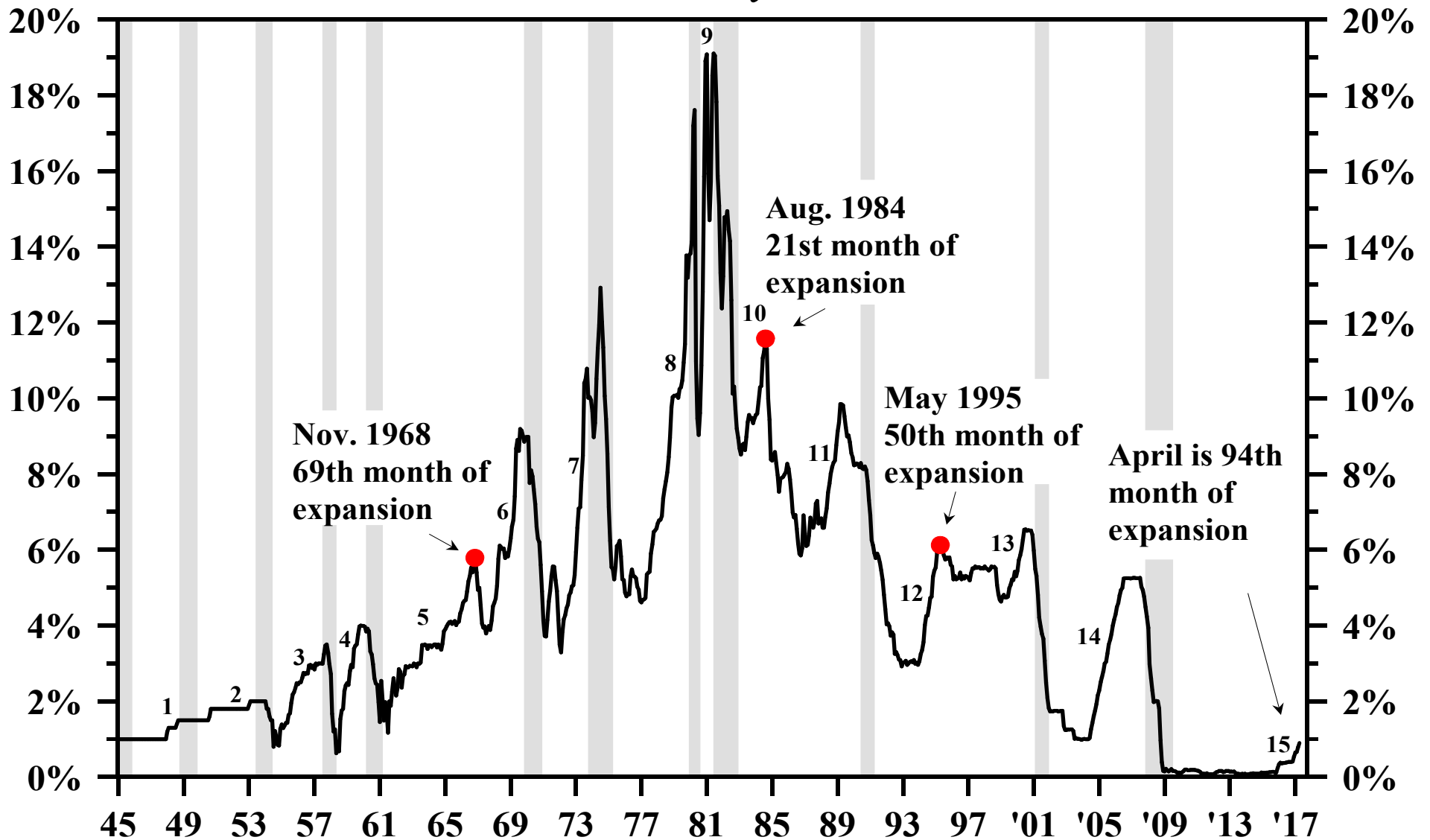
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Mauldin Economics' Strategic Investment Conference
Orlando, Florida May 22-25, 2017

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Federal Funds Rate

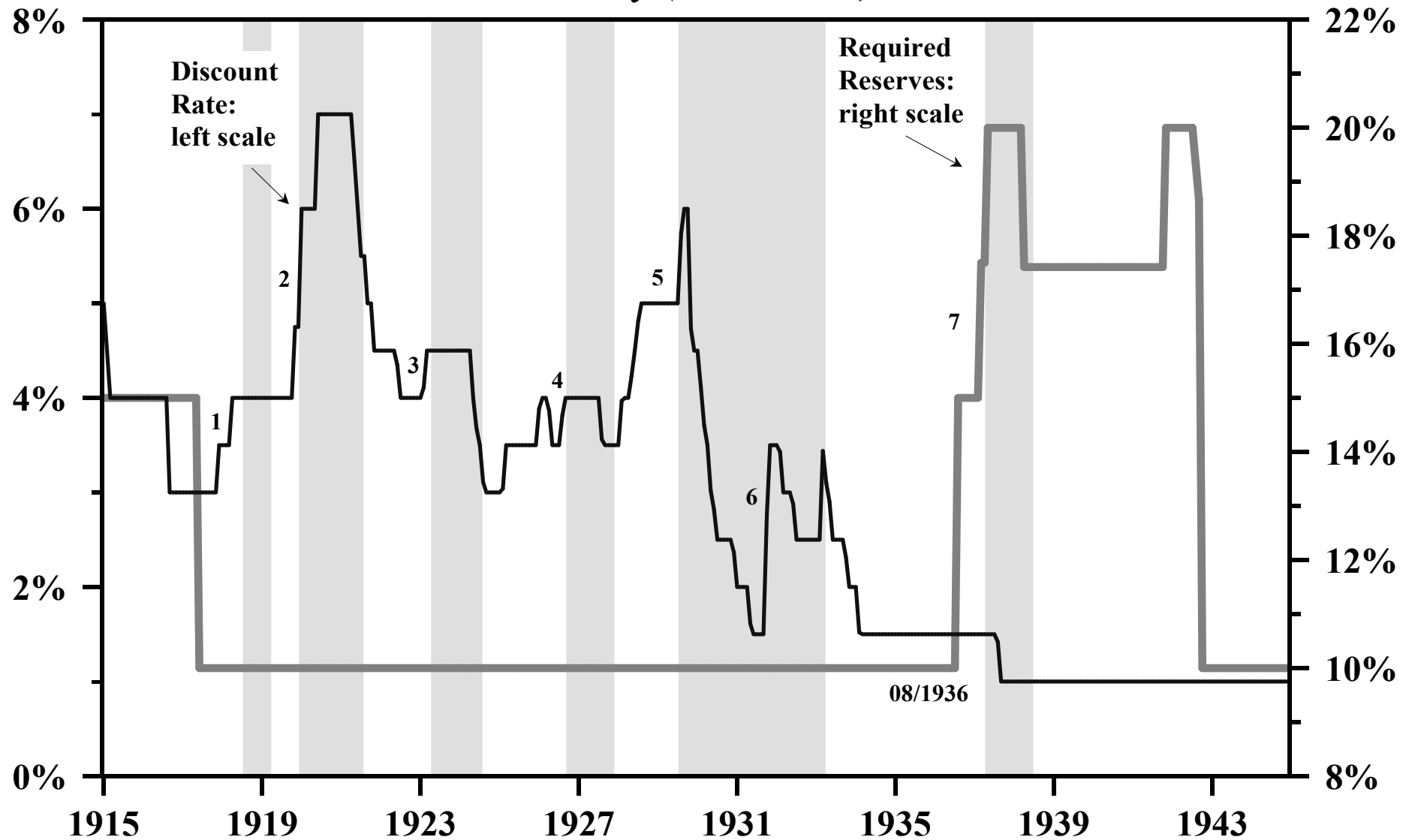
monthly



Source: Federal Reserve Board. Through April 2017. Discount rate used before June 1954.

Discount Rate and Average Reserve Requirements

monthly (1915-1944)

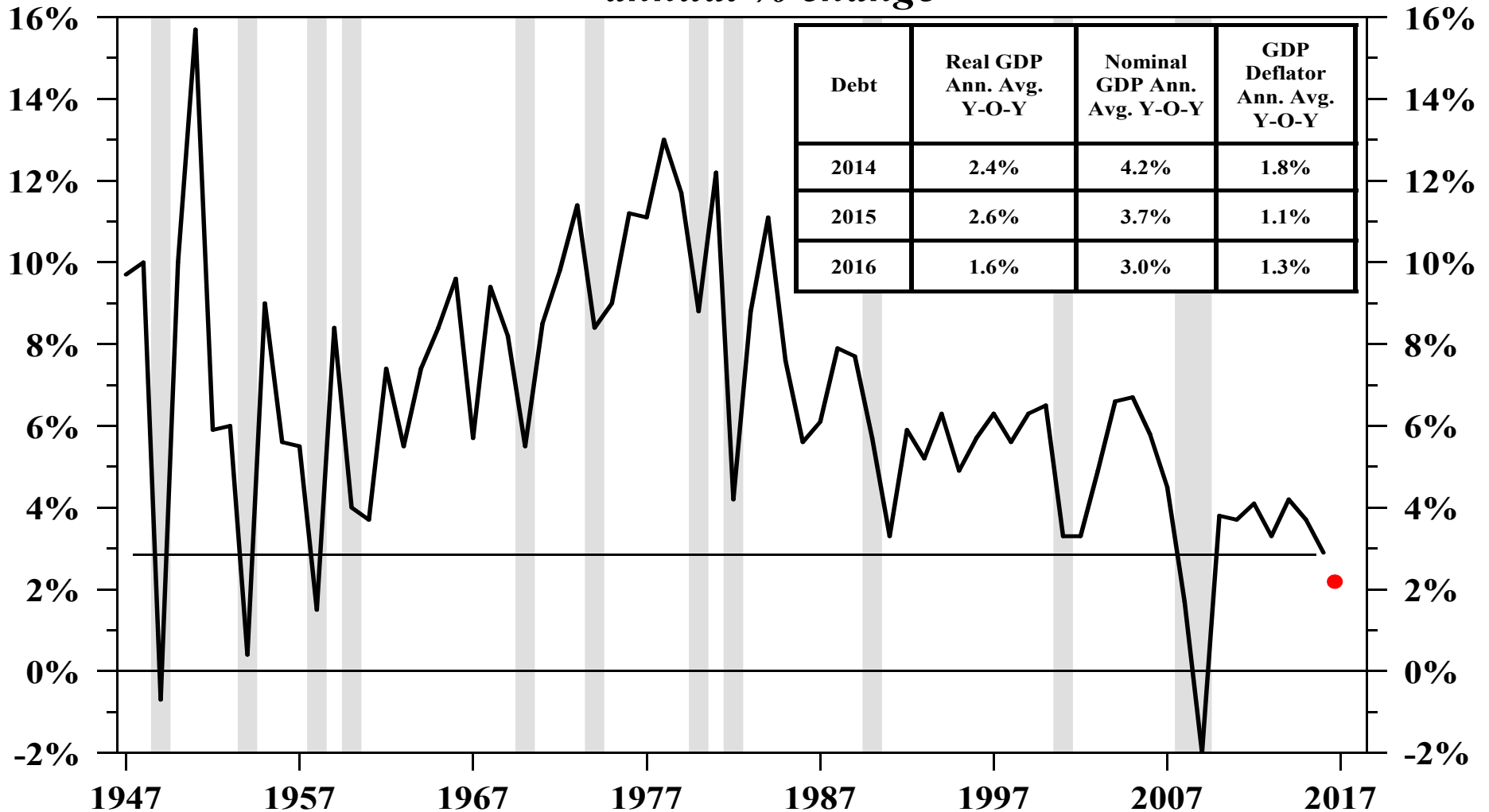


Source: Federal Reserve Board. Through December 1944.

Nominal GDP

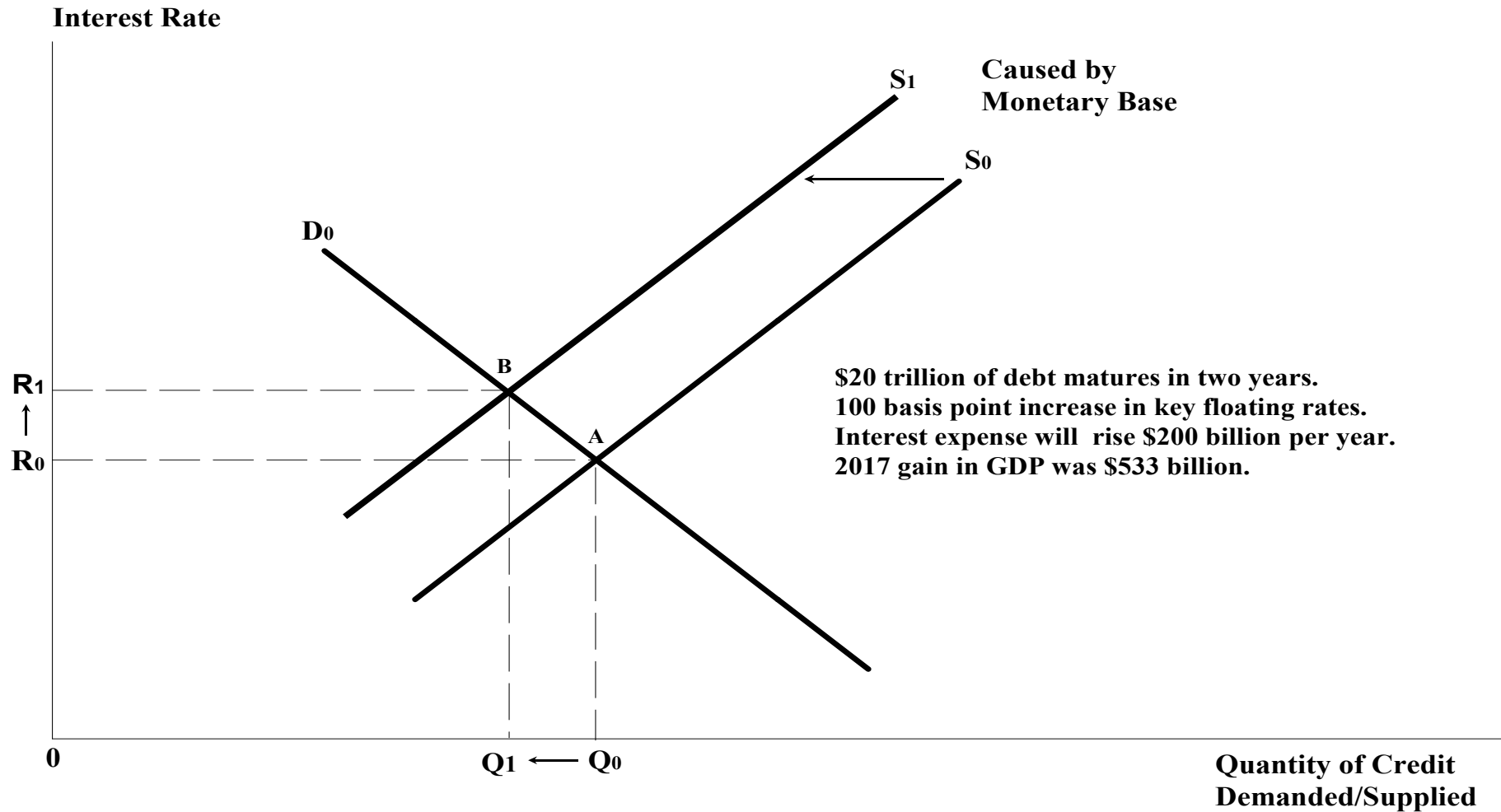
$$(Y)=C+I+G+X = \text{Corporate} + \text{Household Income} = M*V = P*\text{Real GDP}$$

annual % change



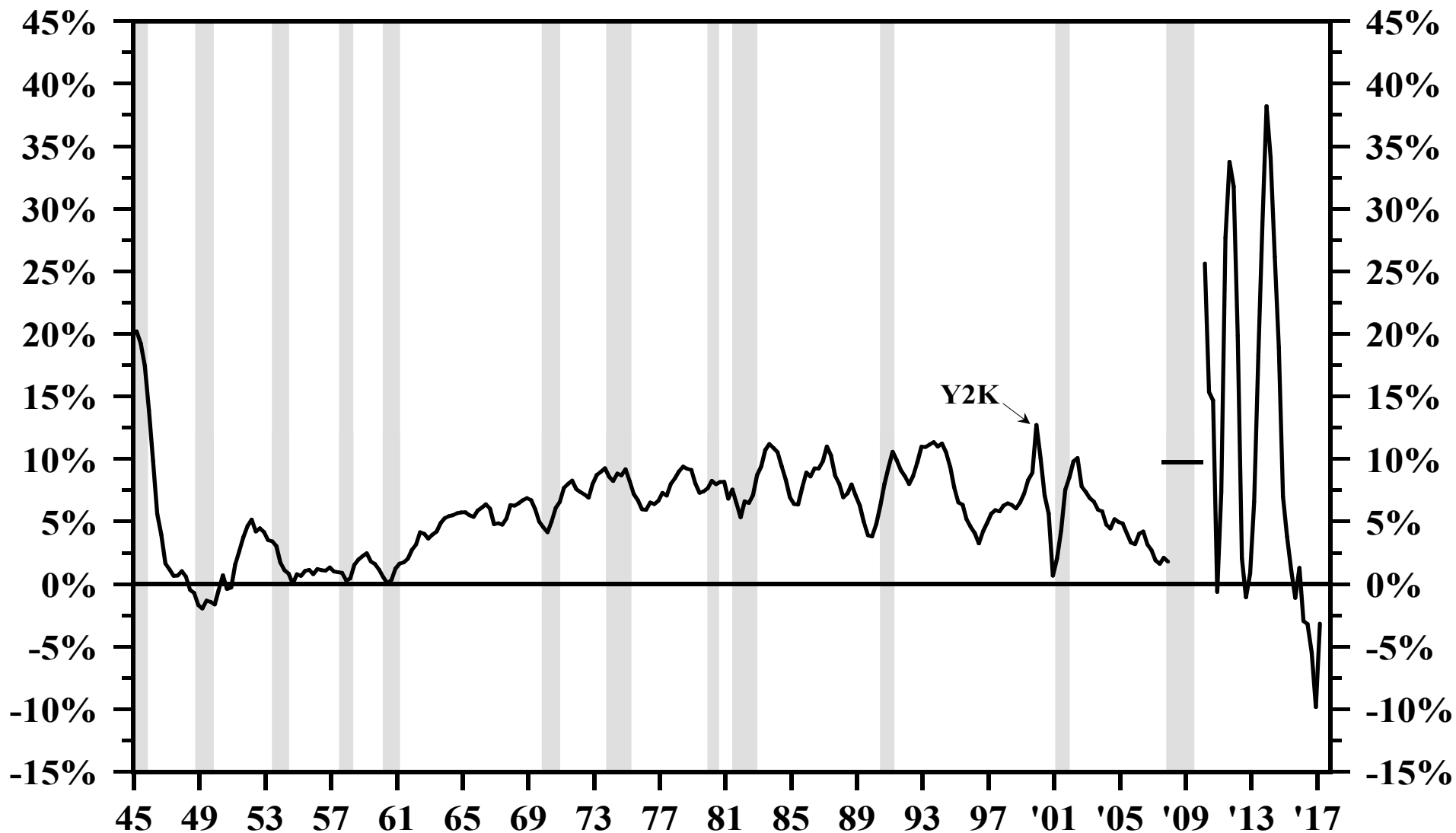
Sources: Federal Reserve Board, Bureau of Economic Analysis.
Through 2016.

Supply and Demand For Credit Analysis



Monetary Base

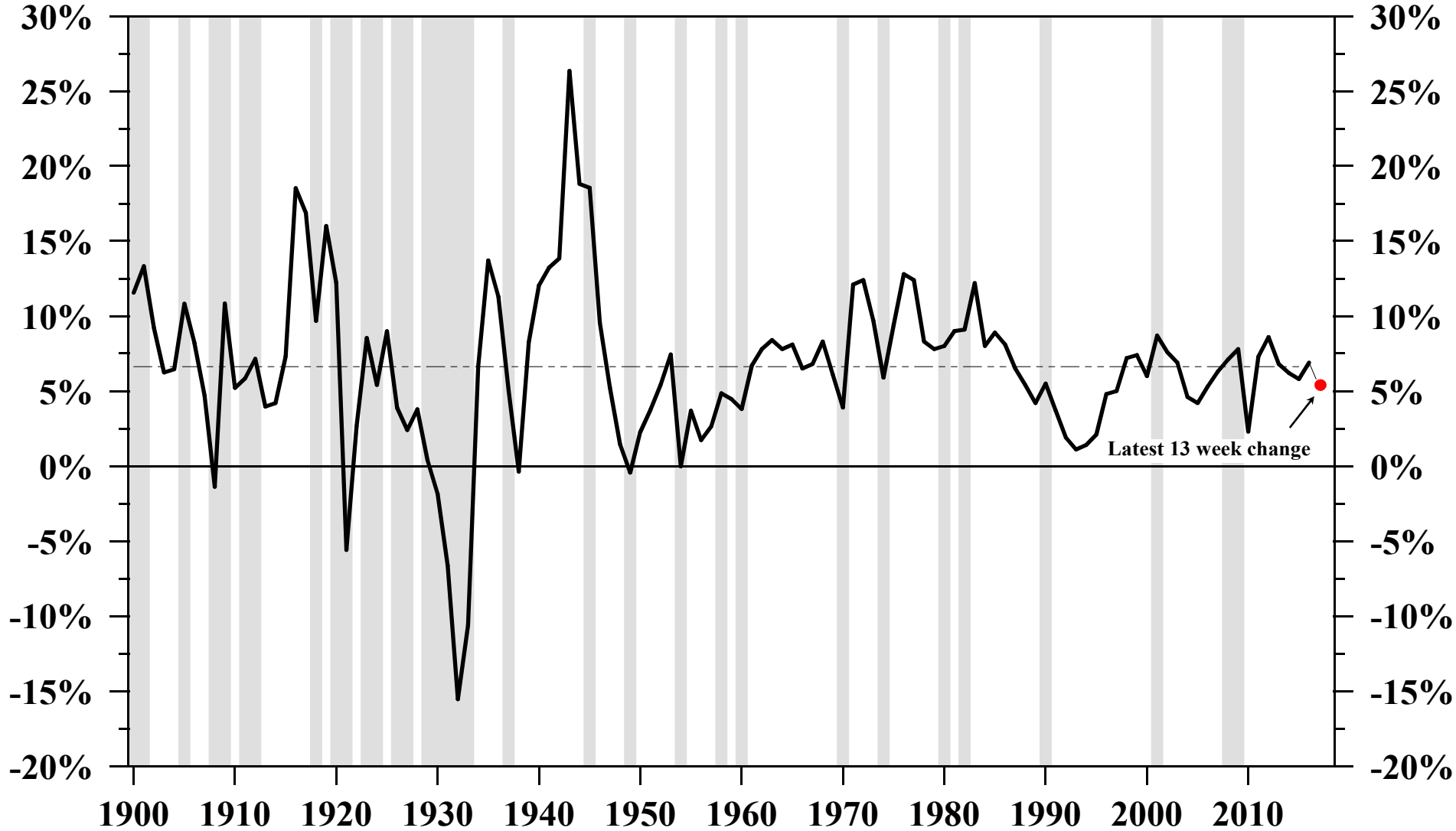
year over year % change, quarterly



Source: Federal Reserve Bank of St. Louis. Through March 2017. Excludes data for 2008 and 2009.

M2 Money Stock

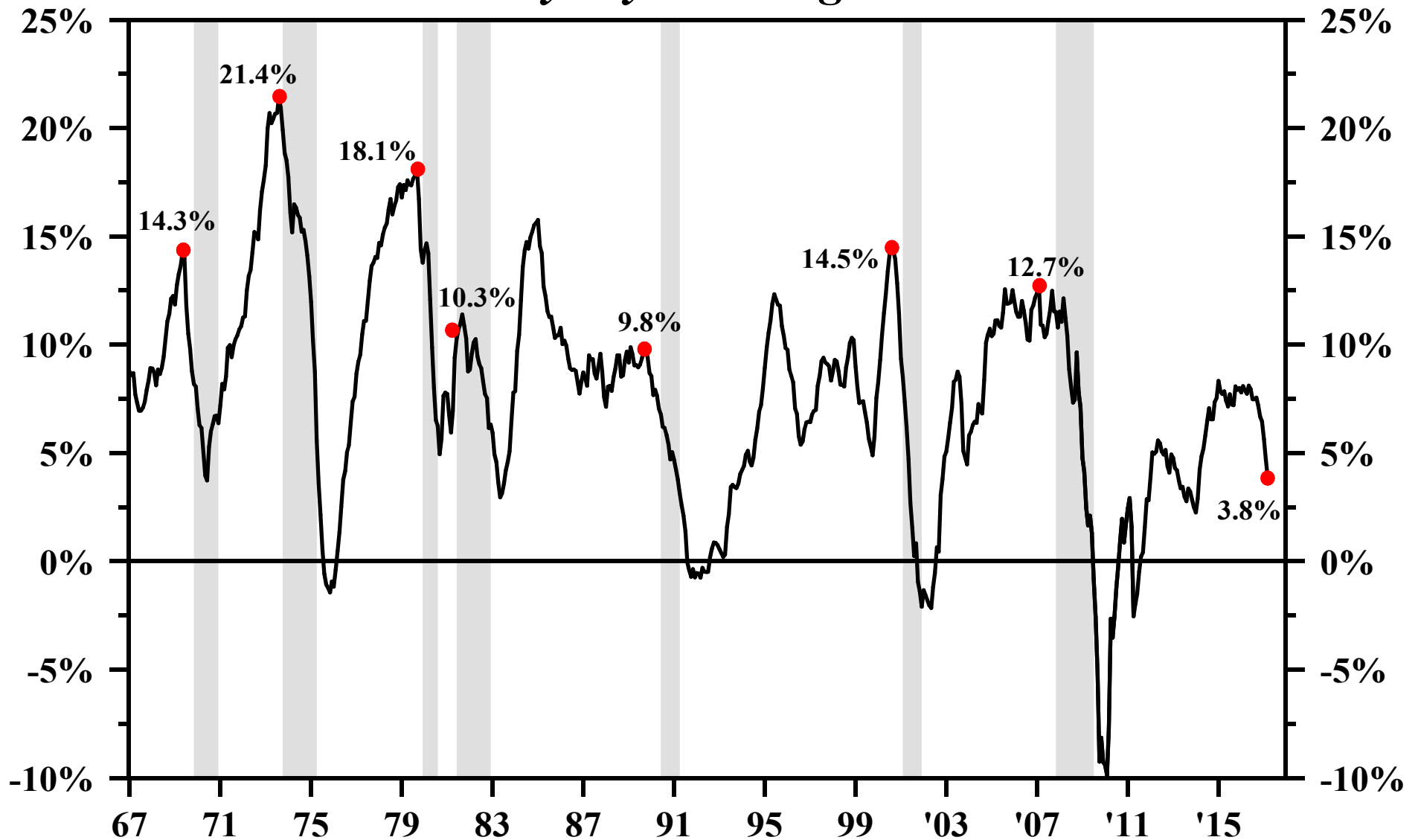
annual % change



Source: Federal Reserve. Through May 1, 2017.

Bank Loans plus Nonfinancial Commercial Paper

y-o-y % change

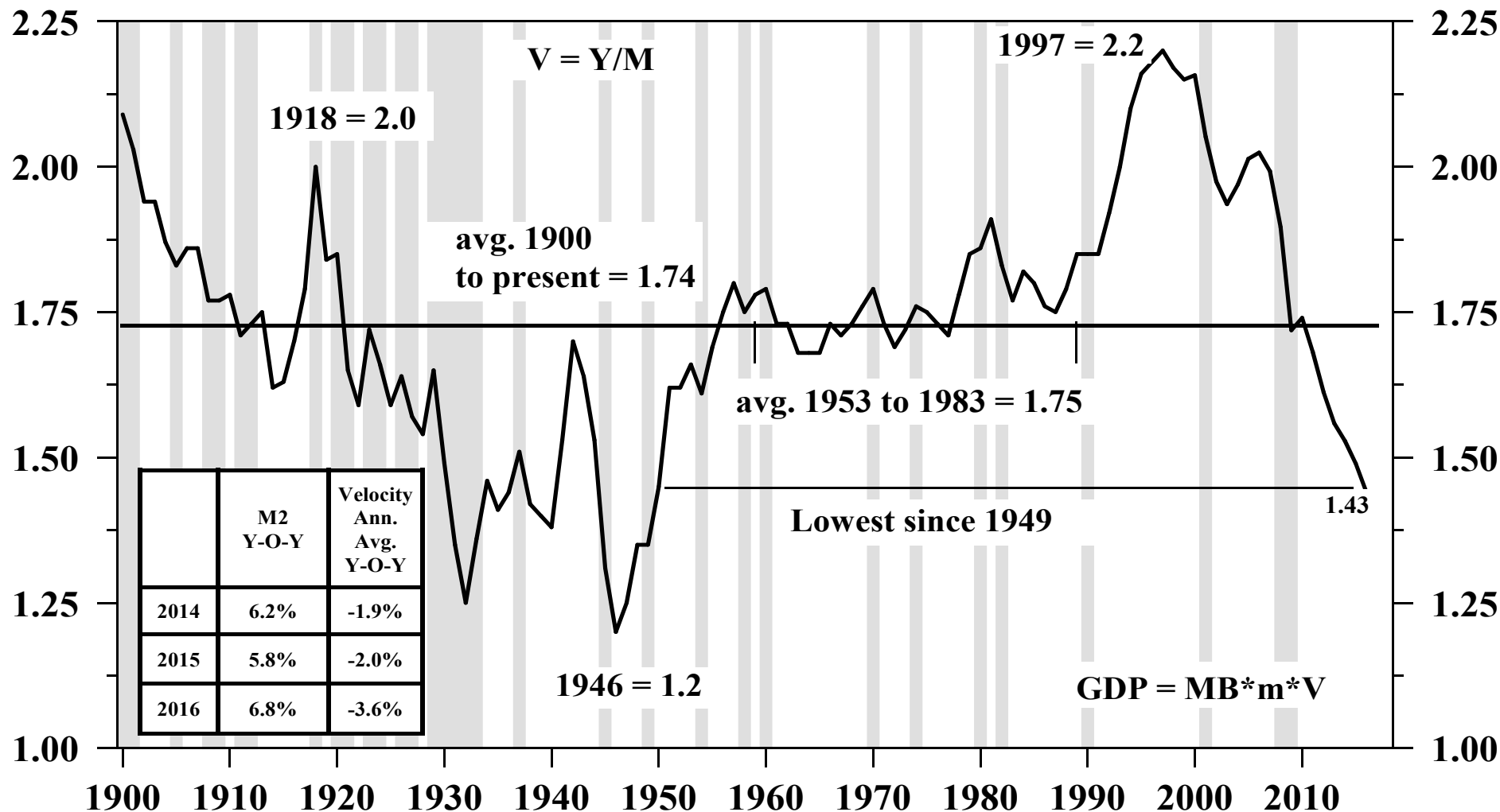


Source: Federal Reserve Board. Through April 2017.

Velocity of Money 1900-2017

Equation of Exchange: $GDP = M * V$

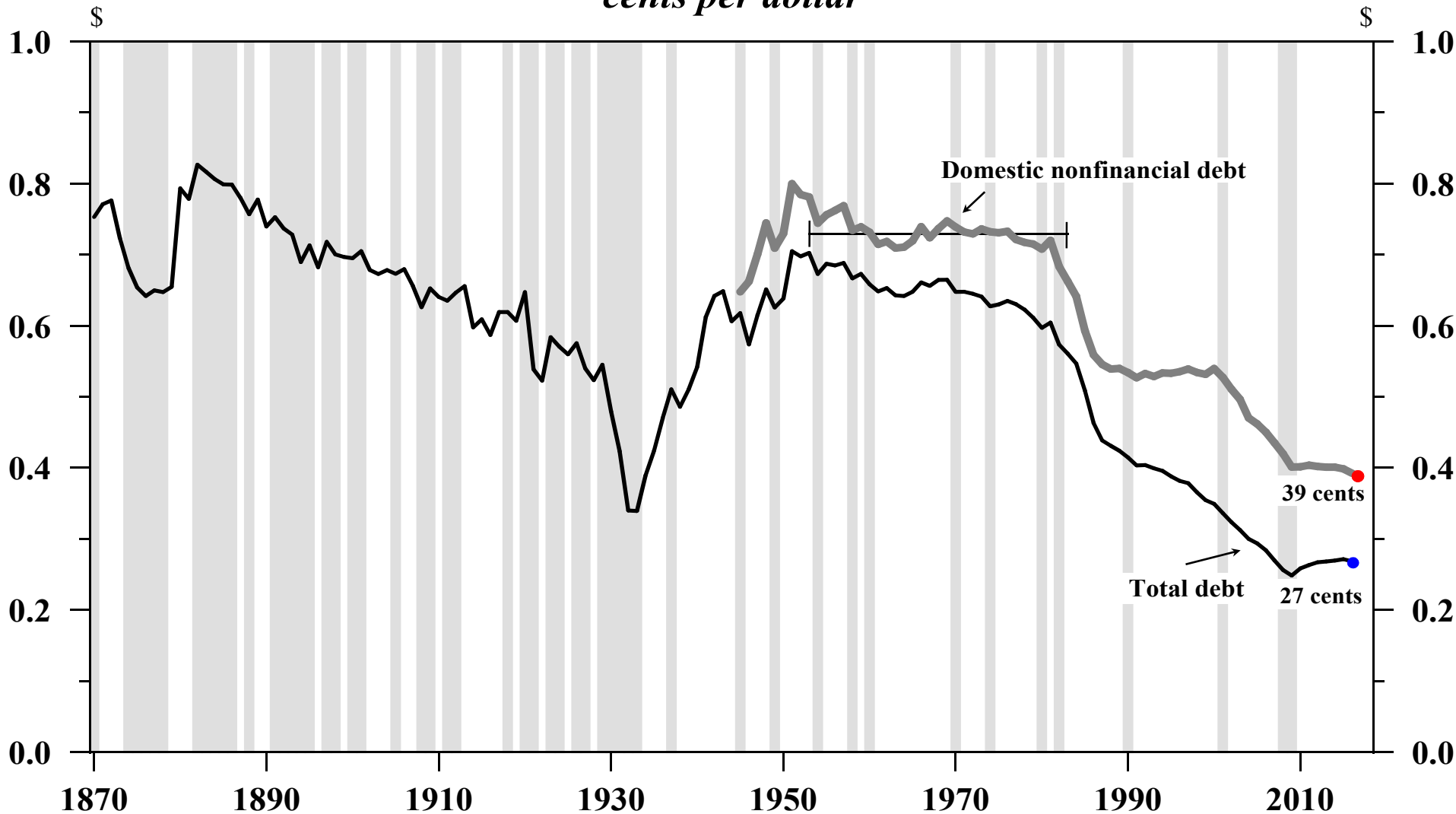
annual



Sources: Federal Reserve Board; Bureau of Economic Analysis; Bureau of the Census; The American Business Cycle, Gordon, Balke and Romer. Through Q1 2017. Q1 2017; $V = GDP/M$, $GDP = 19$ tril, $M2 = 13.3$ tril, $V = 1.43$

GDP Per Dollar of Debt

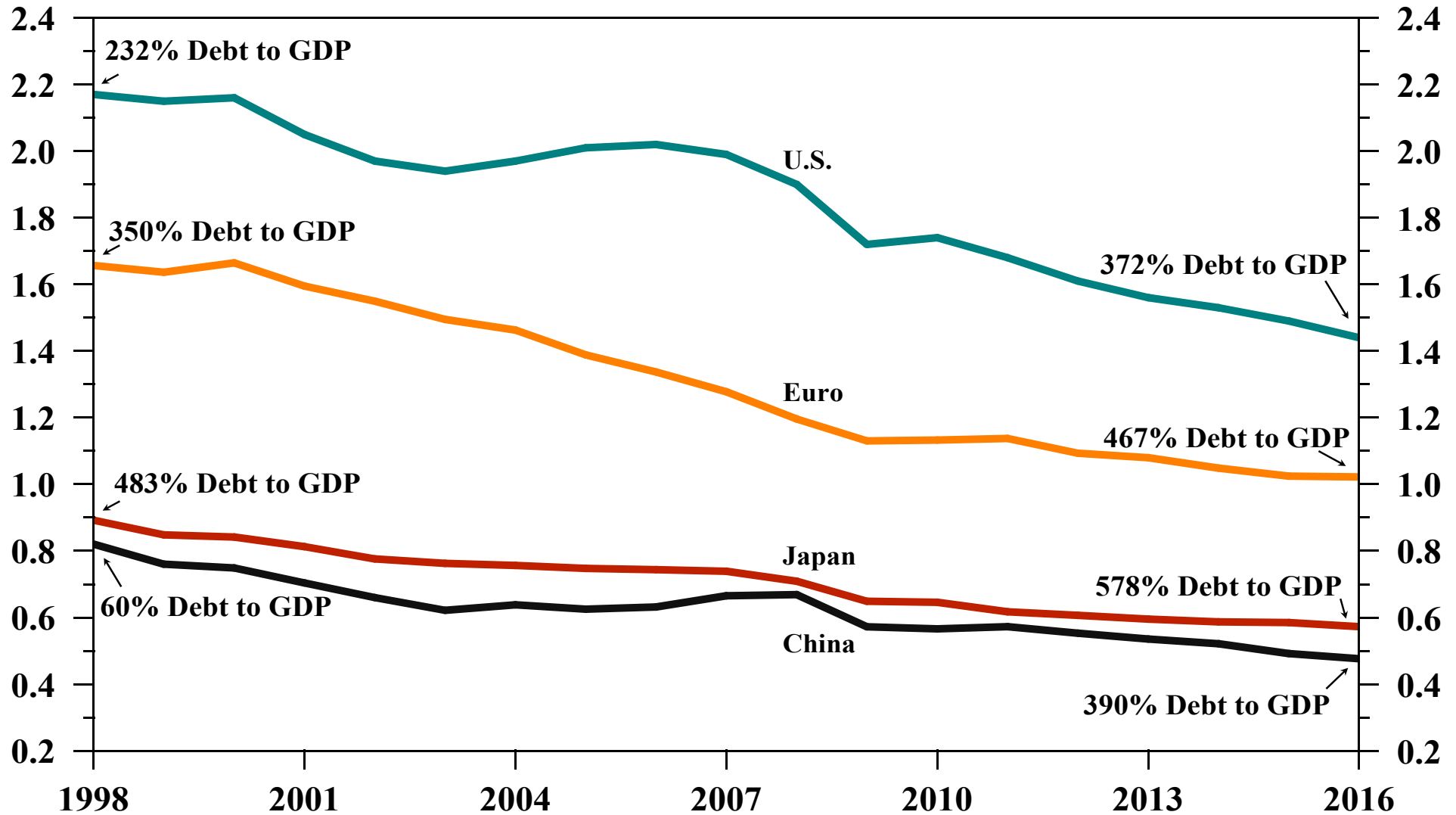
(excluding off balance sheet liabilities)
cents per dollar



Sources: Bureau of Economic Analysis, Federal Reserve, Congressional Budget Office. Census Bureau:
Historical Statistics of the United States Colonial Times to 1970. Through Q4 2016.

M2 Velocity: Four Major Economies

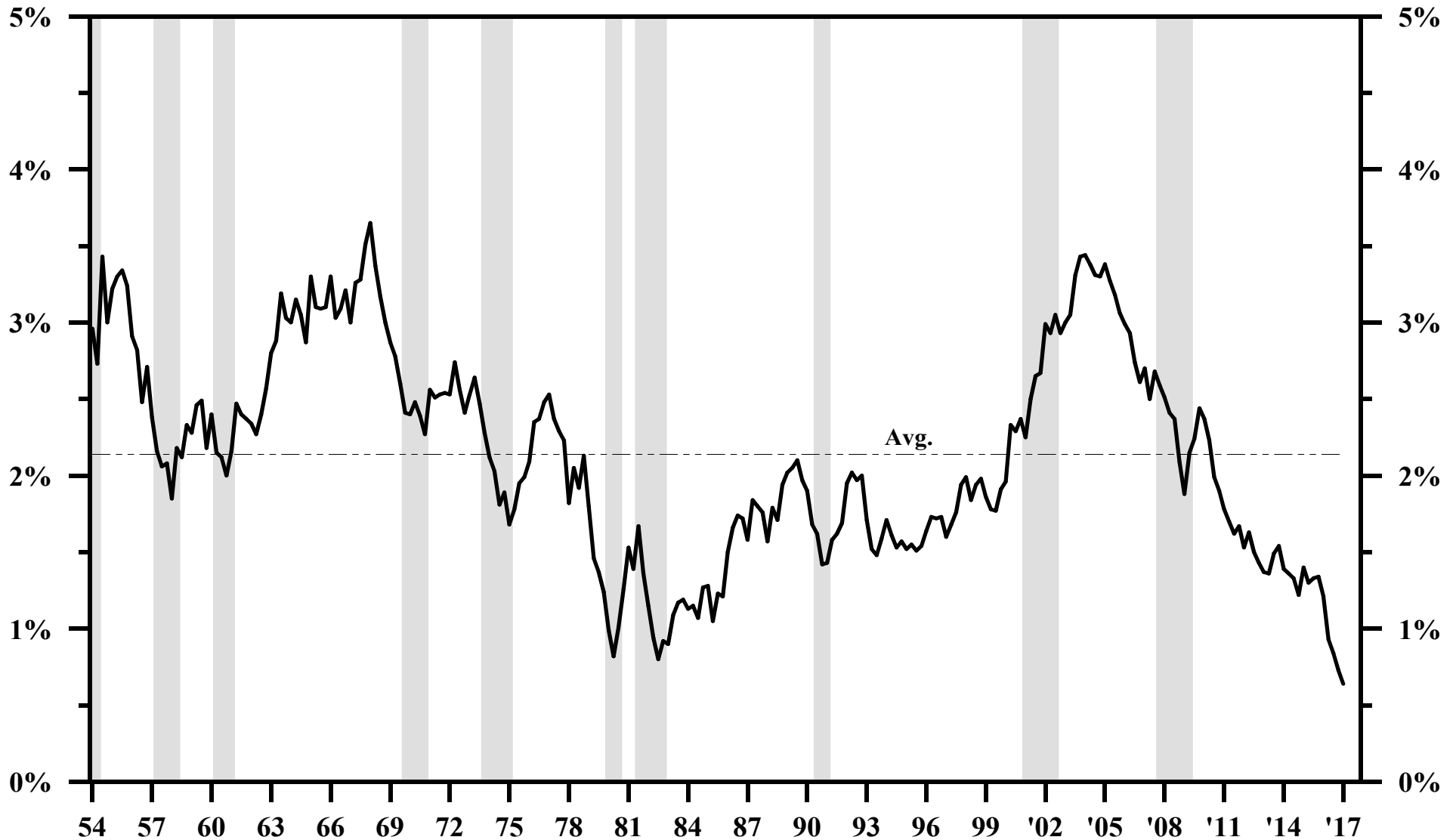
annual



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 2016. Debt figures estimated.

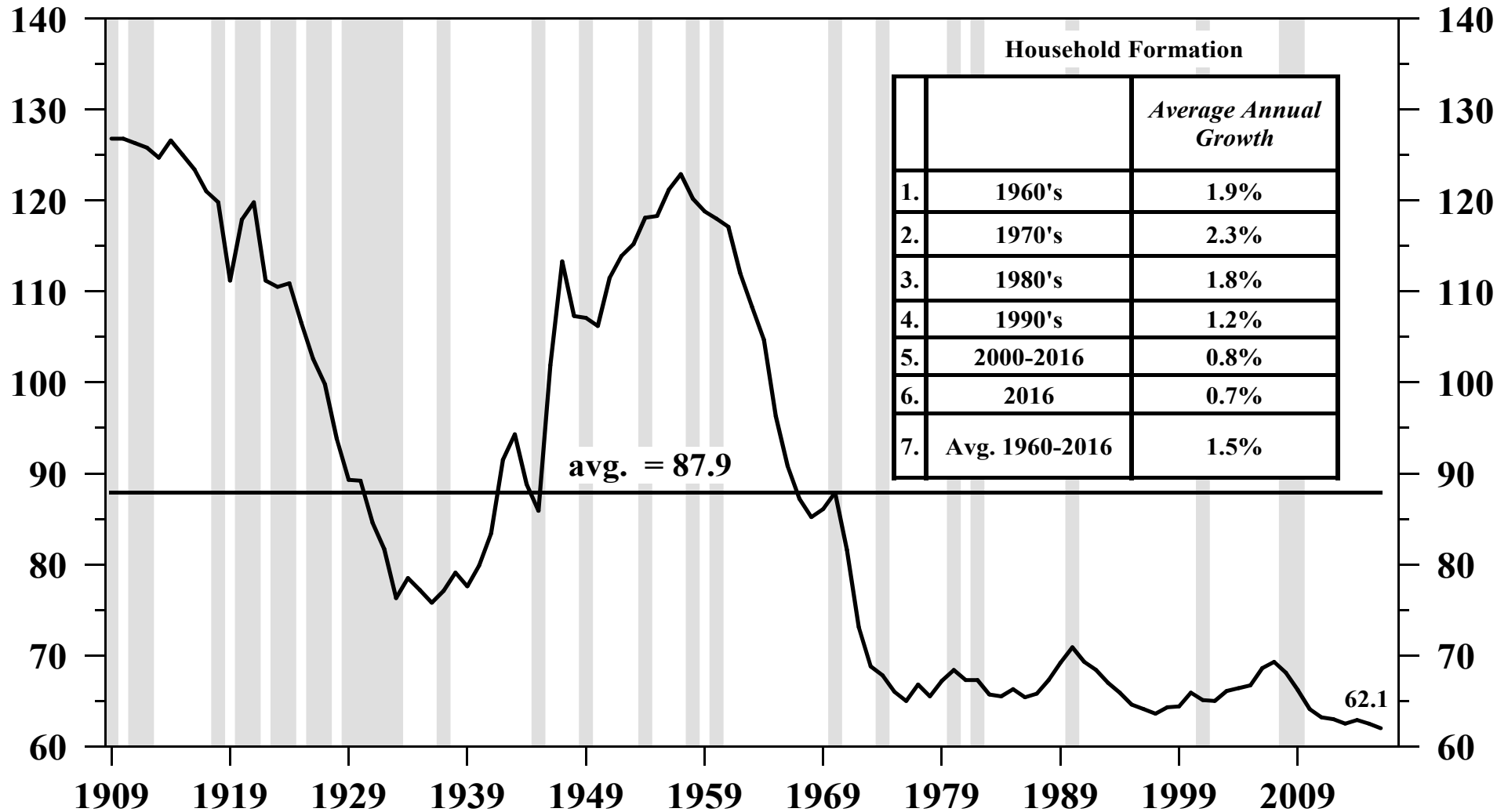
Nonfarm Business Sector: Productivity

7 year % change a.r., quarterly



Sources: Census Bureau. Bureau of Labor Statistics. Through Q1 2017.

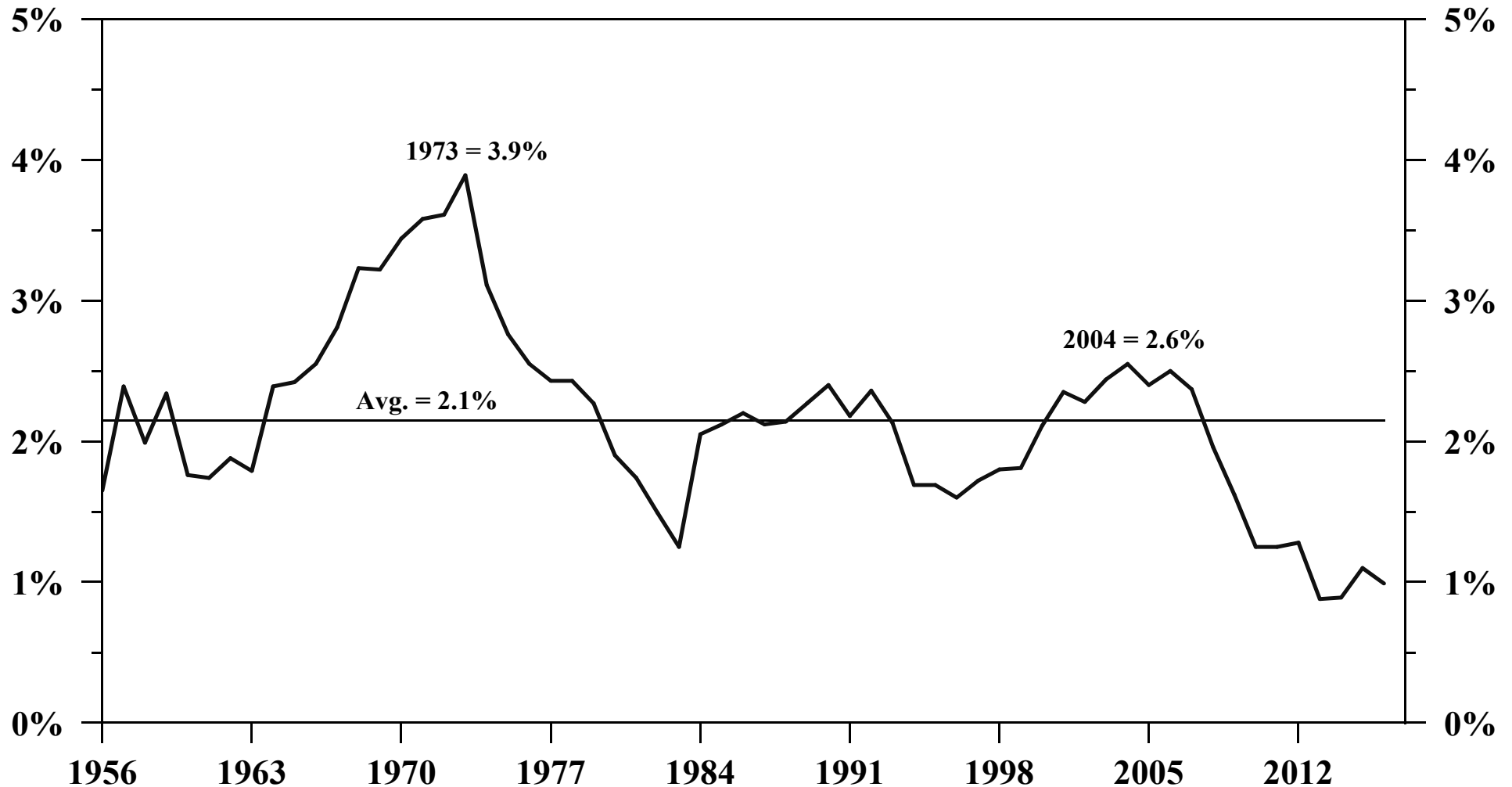
U.S. General Fertility Rate (Births per 1000 Women Aged 15-44) *annual*



Sources: National center for Health Statistics, Haver Analytics, St. Louis Fed., Census Bureau.
Through Q3 2017.

Real Disposable Personal Income per Capita (1956-2016)

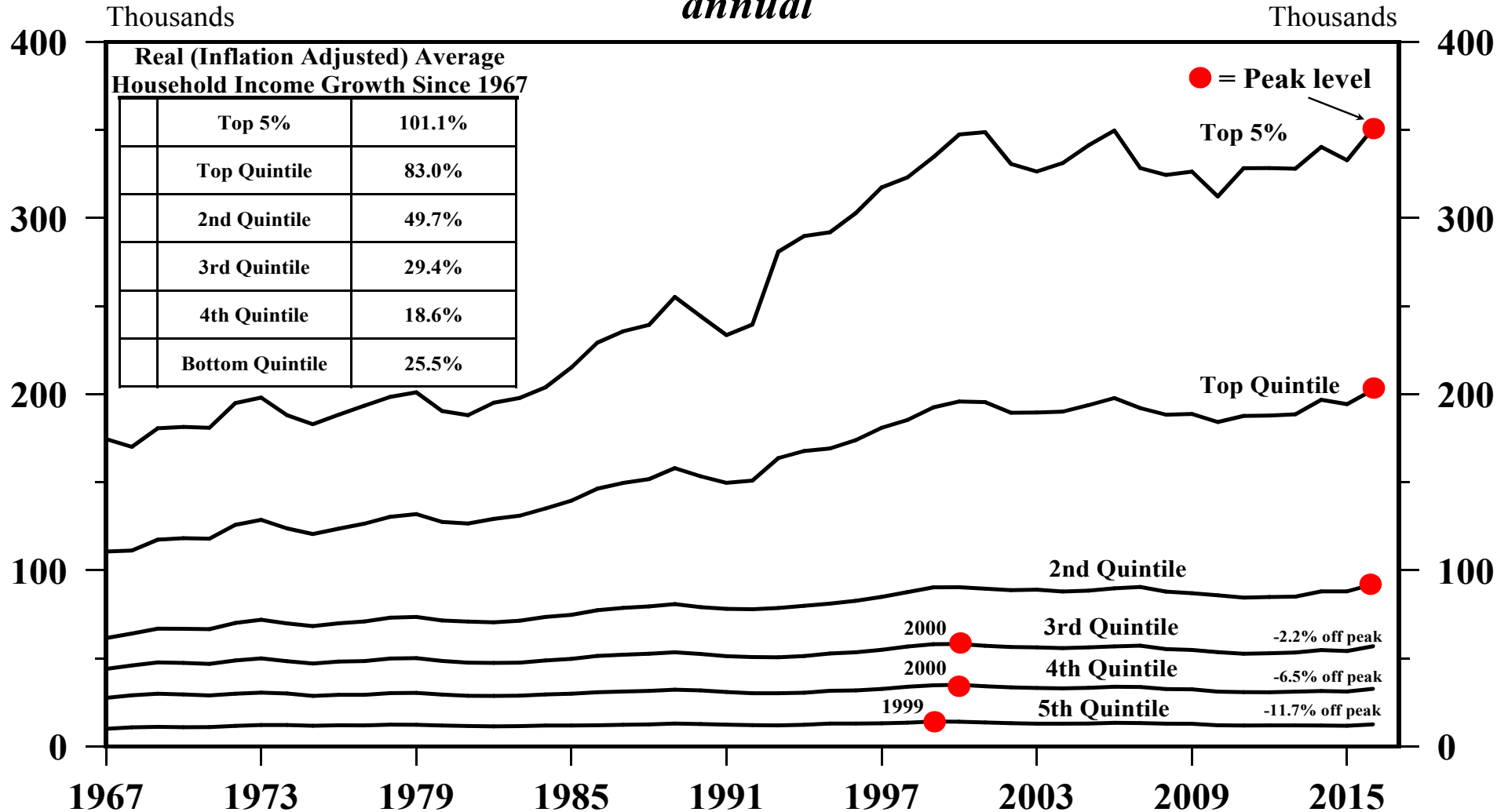
ten year % change, a.r.



Sources: Bureau of Economic Analysis, Census Bureau. Computation of the 10 year moving average starts with 1946 thus the first plot begins in 1956. Through Q4 2016.

Real Average Household Income By Quintile and Top 5

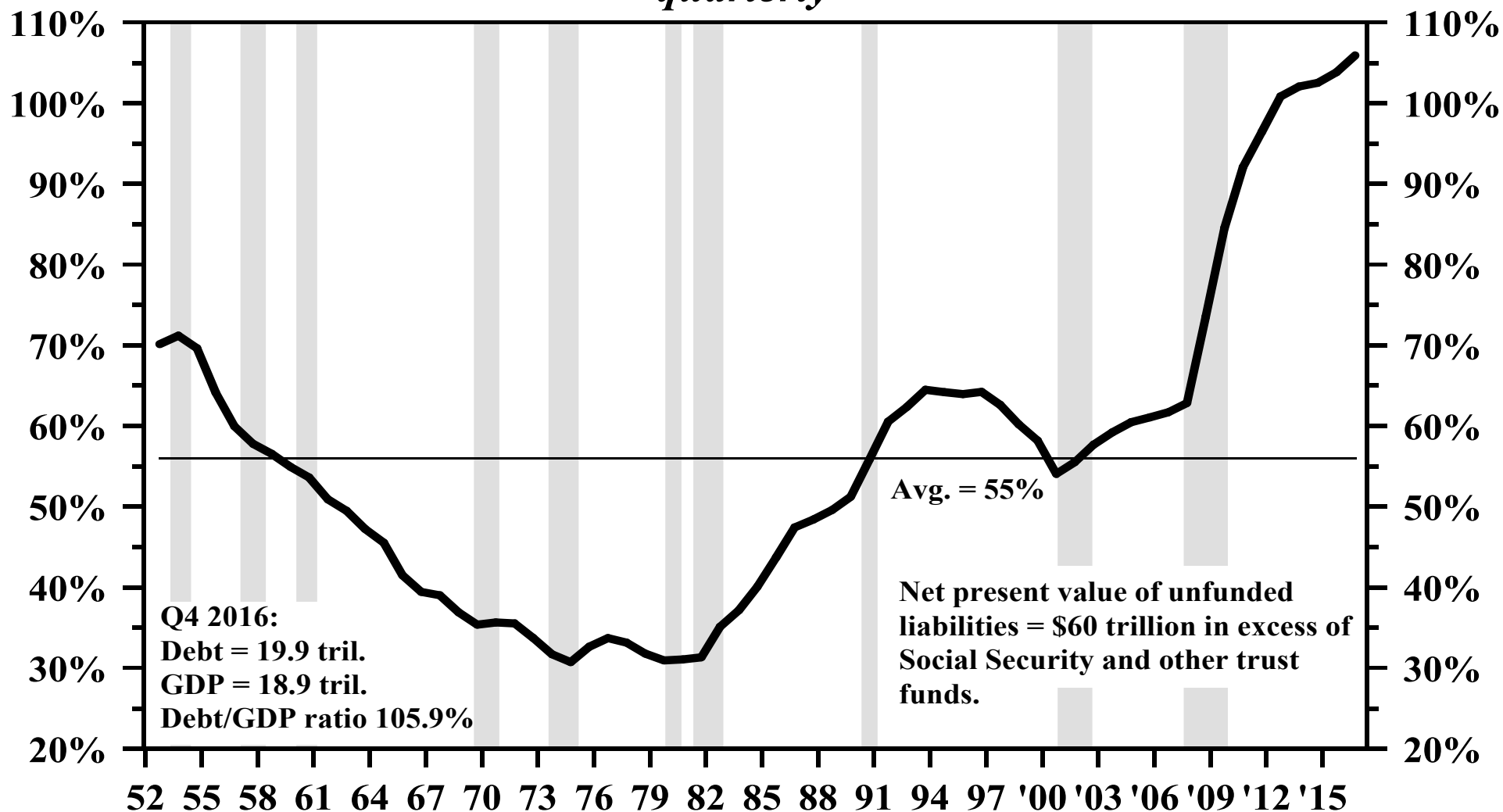
annual



Sources: Census Bureau. Through 2015.

Gross Federal Debt as a % of GDP (Excluding Off Balance Sheet Liabilities)

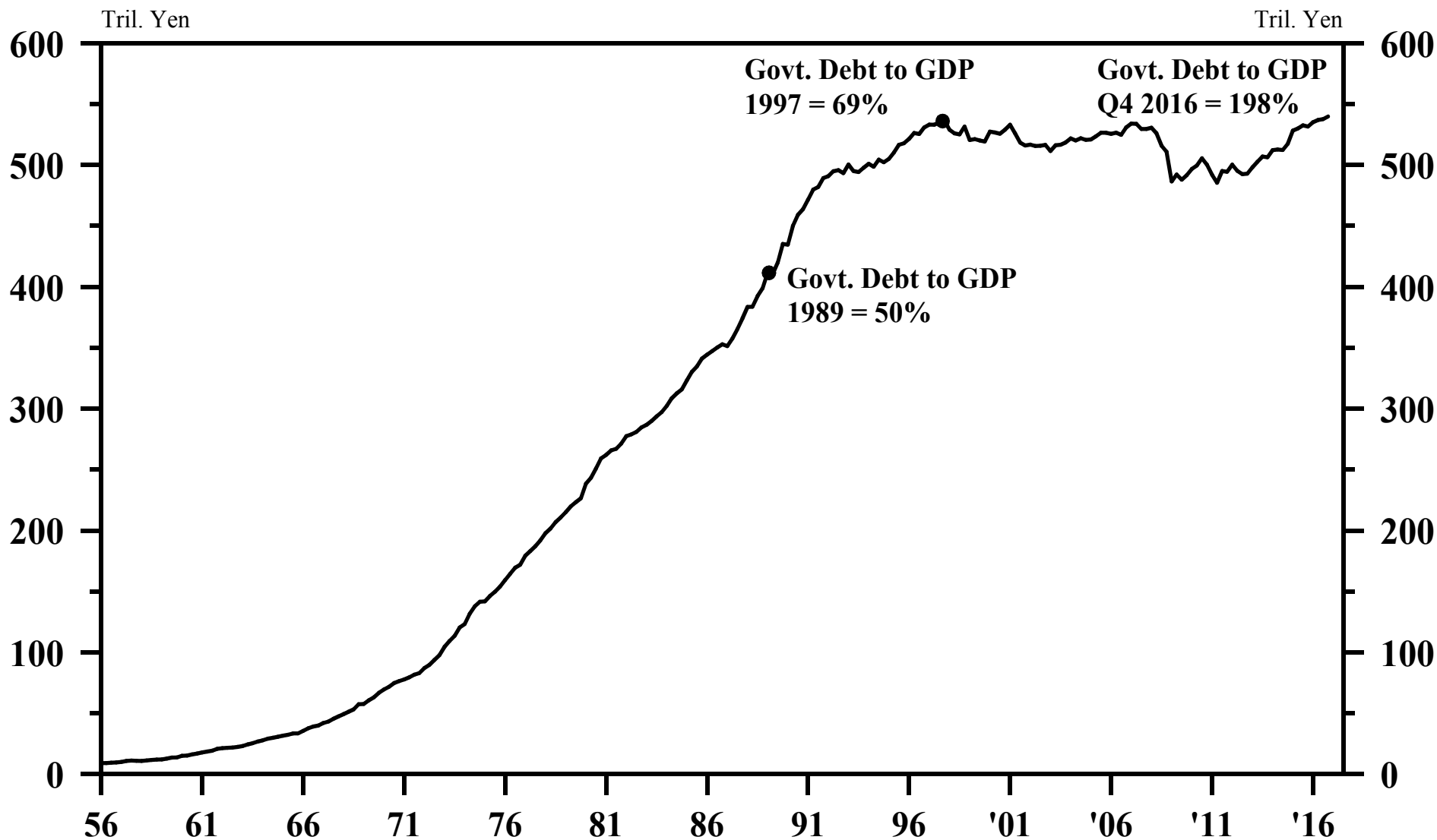
quarterly



Source: Federal Reserve Board, Bureau of Economic Analysis. Office Management and Budget.
Through Q4 2016.

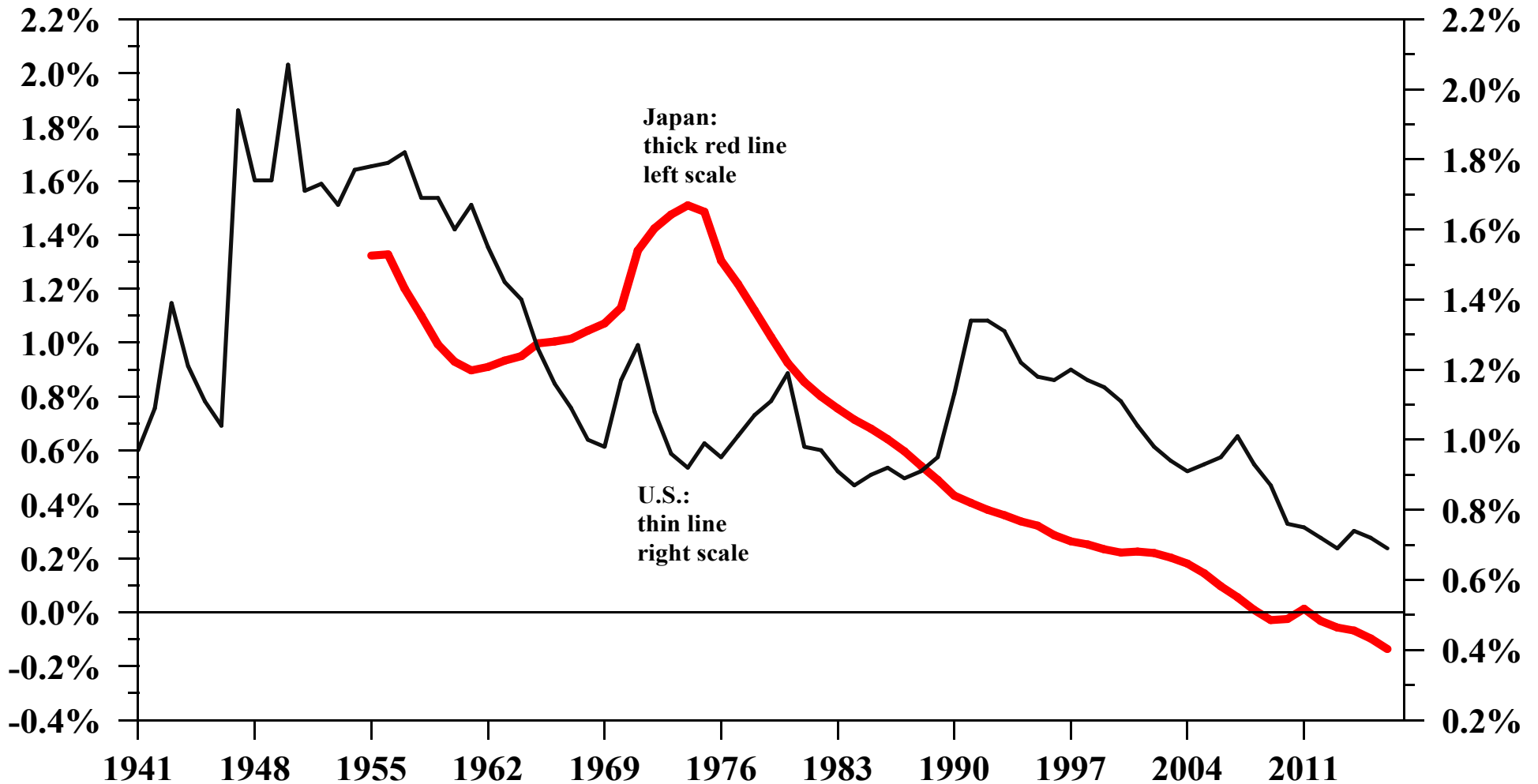
Japan: Gross Domestic Product

quarterly level



Source: Cabinet Office of Japan. Through Q4 2016.

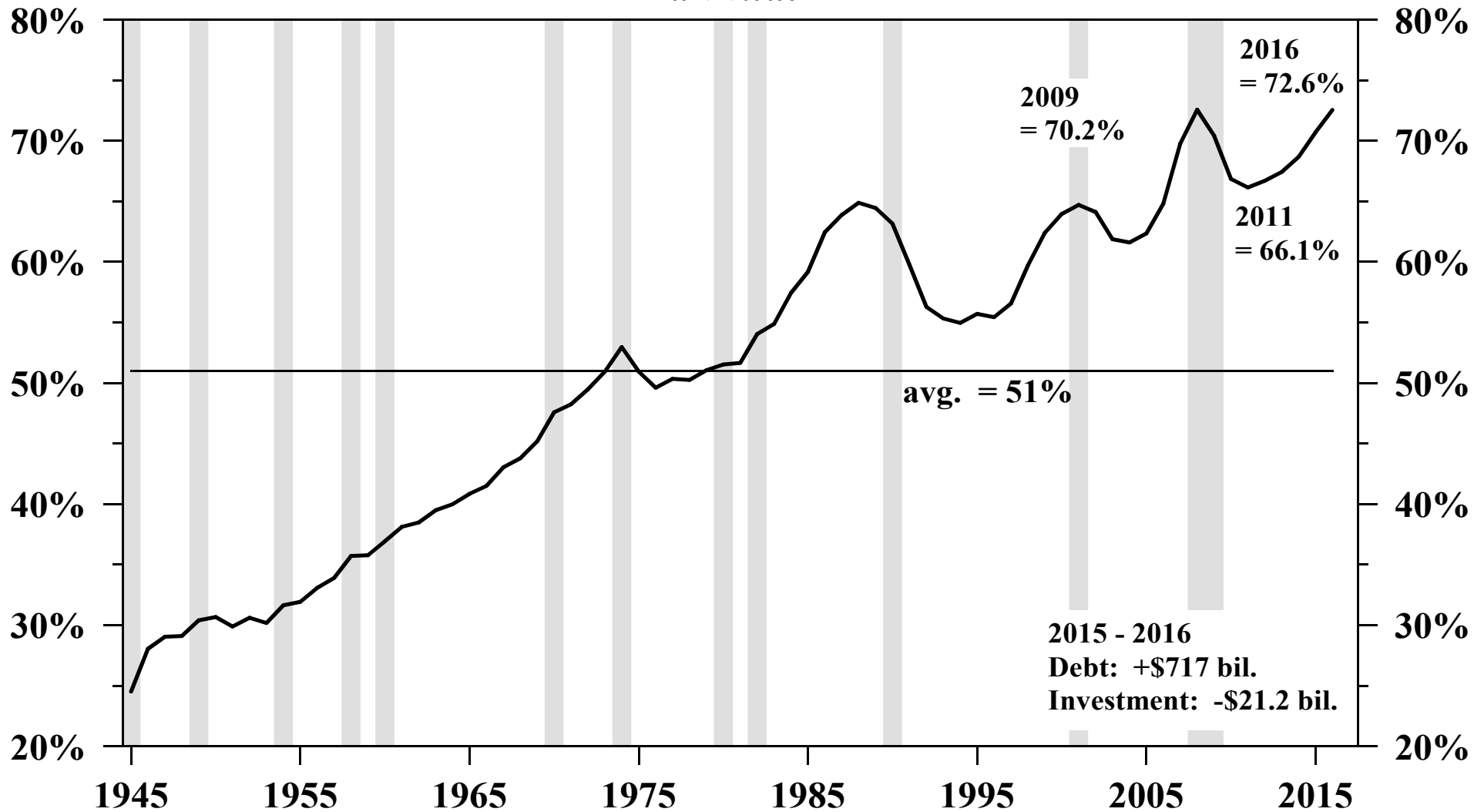
Population Growth: U.S. and Japan (1941-2016) annual % change



Sources: Census Bureau. Ministry of Internal Affairs and Communications, Haver Analytics.
Through Q4 2016. (Japan population growth is measured as a 5 year % change, a.r.)

Business Debt as a % of GDP (Excluding Off Balance Sheet Liabilities)

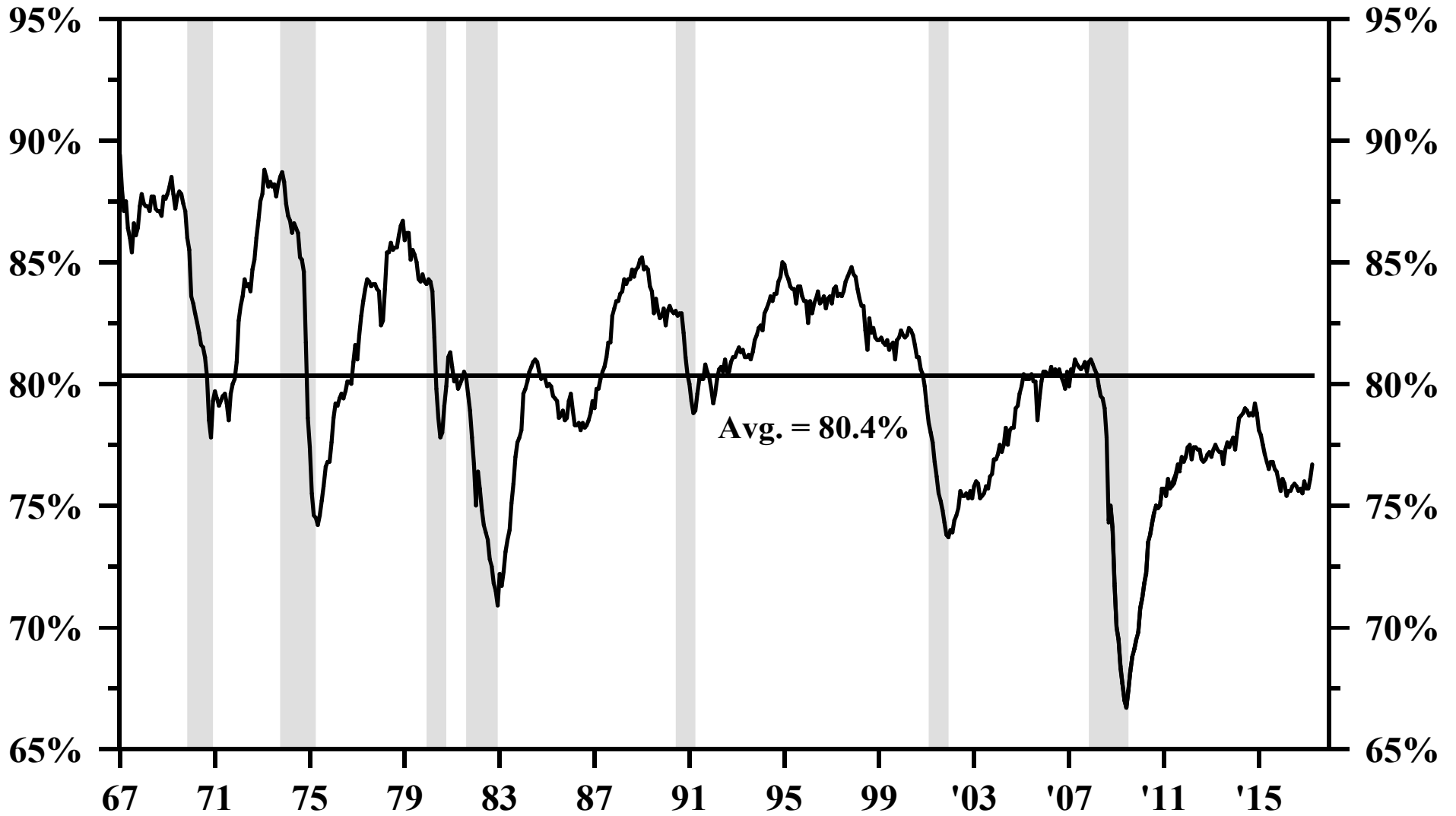
annual



Sources: Federal Reserve. Through Q4 2016.

Total Industry Capacity Utilization

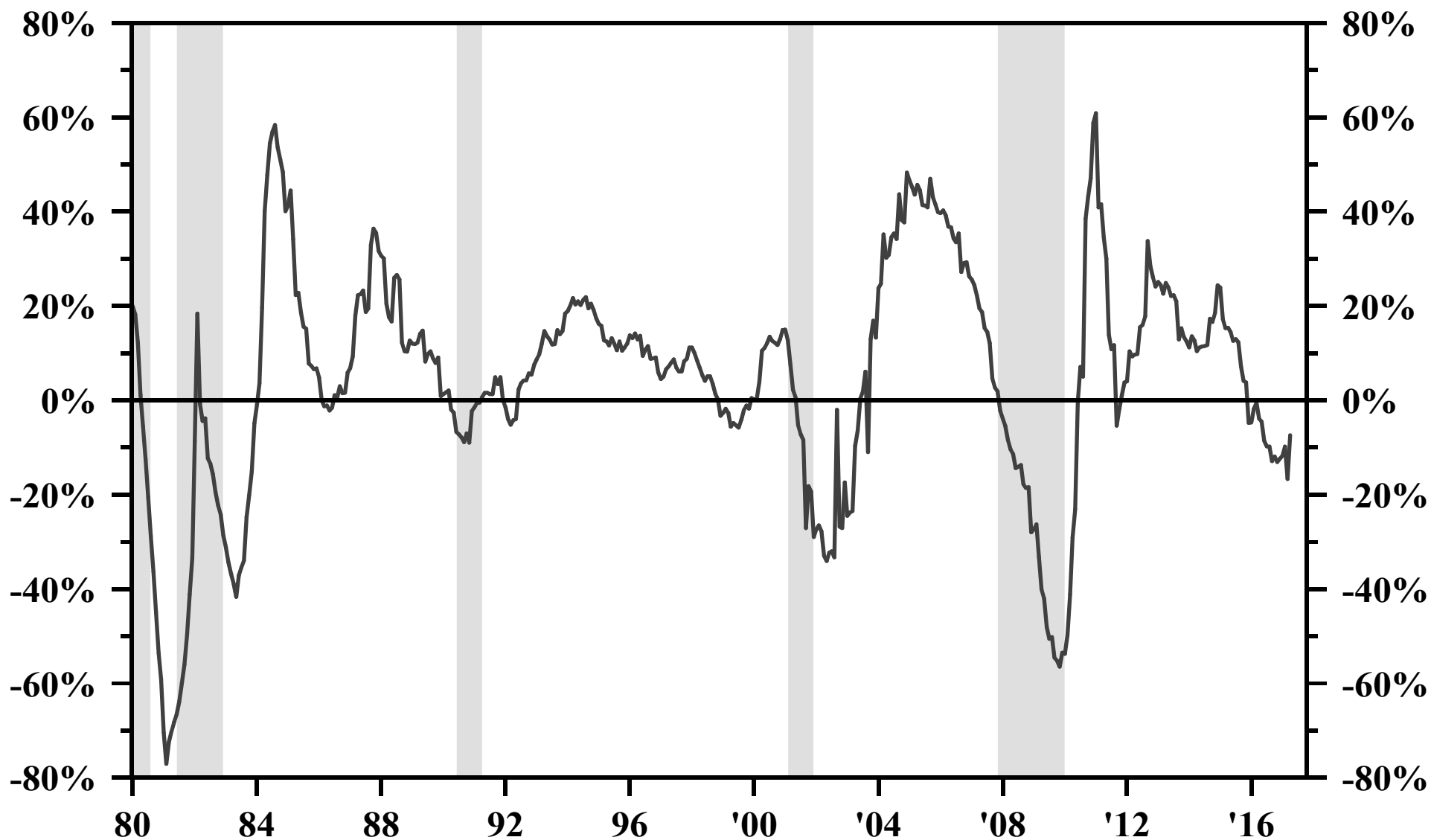
monthly



Source: Federal Reserve Board. Through April 2017.

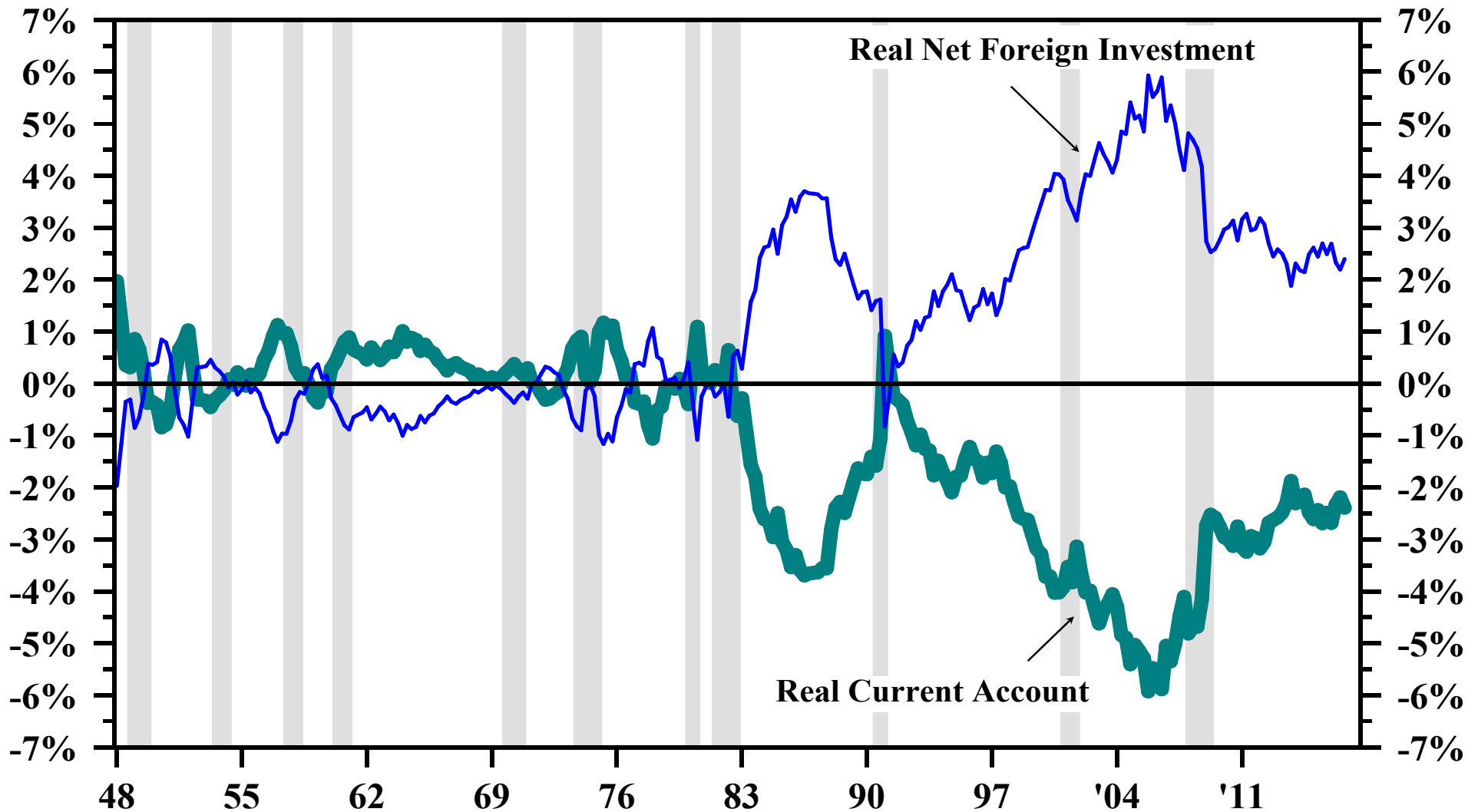
Federal Receipts: Corporate

y-o-y % change, 12 month sum



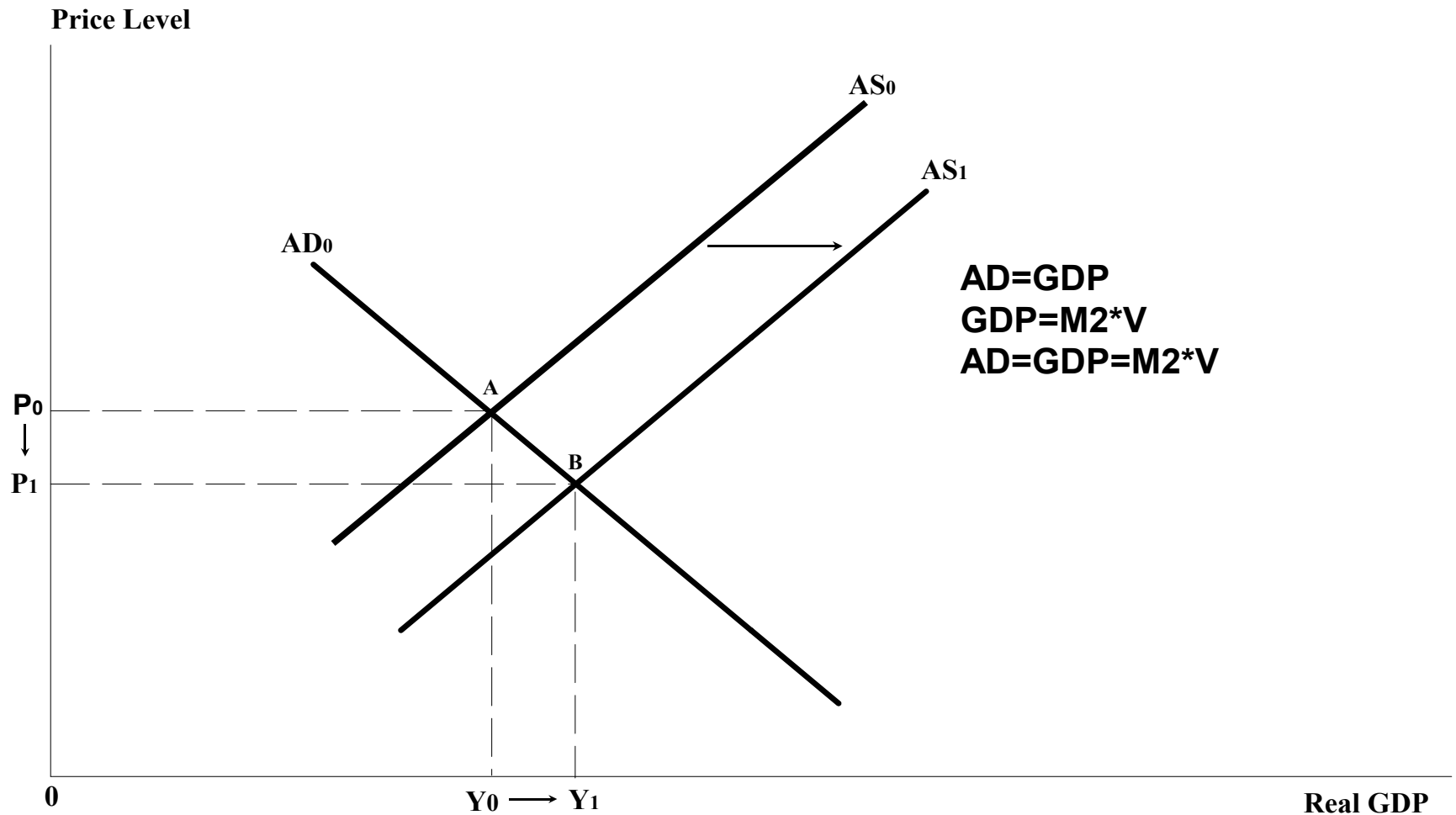
Source: U.S. Treasury. Through April 2017.

An Inverse Relationship: Real Current Account Balance and Real Net Foreign Investment *as % of GDP*



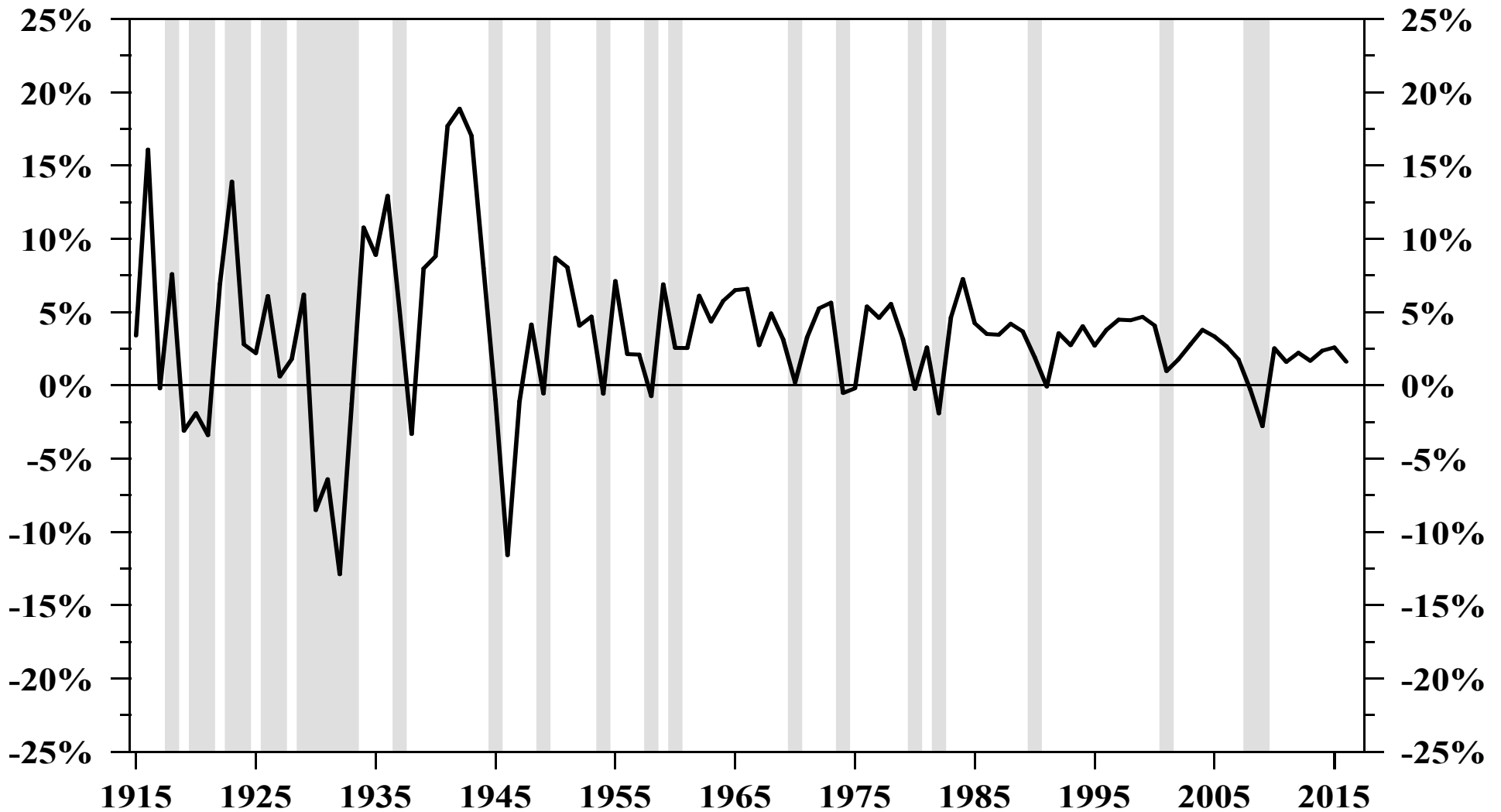
Source: Bureau of Economic Analysis. Through Q4 2016.

Beneficial Effects of Deregulation and Increased Energy Production Using Aggregate Supply and Demand Analysis



Real GDP 1915-2016

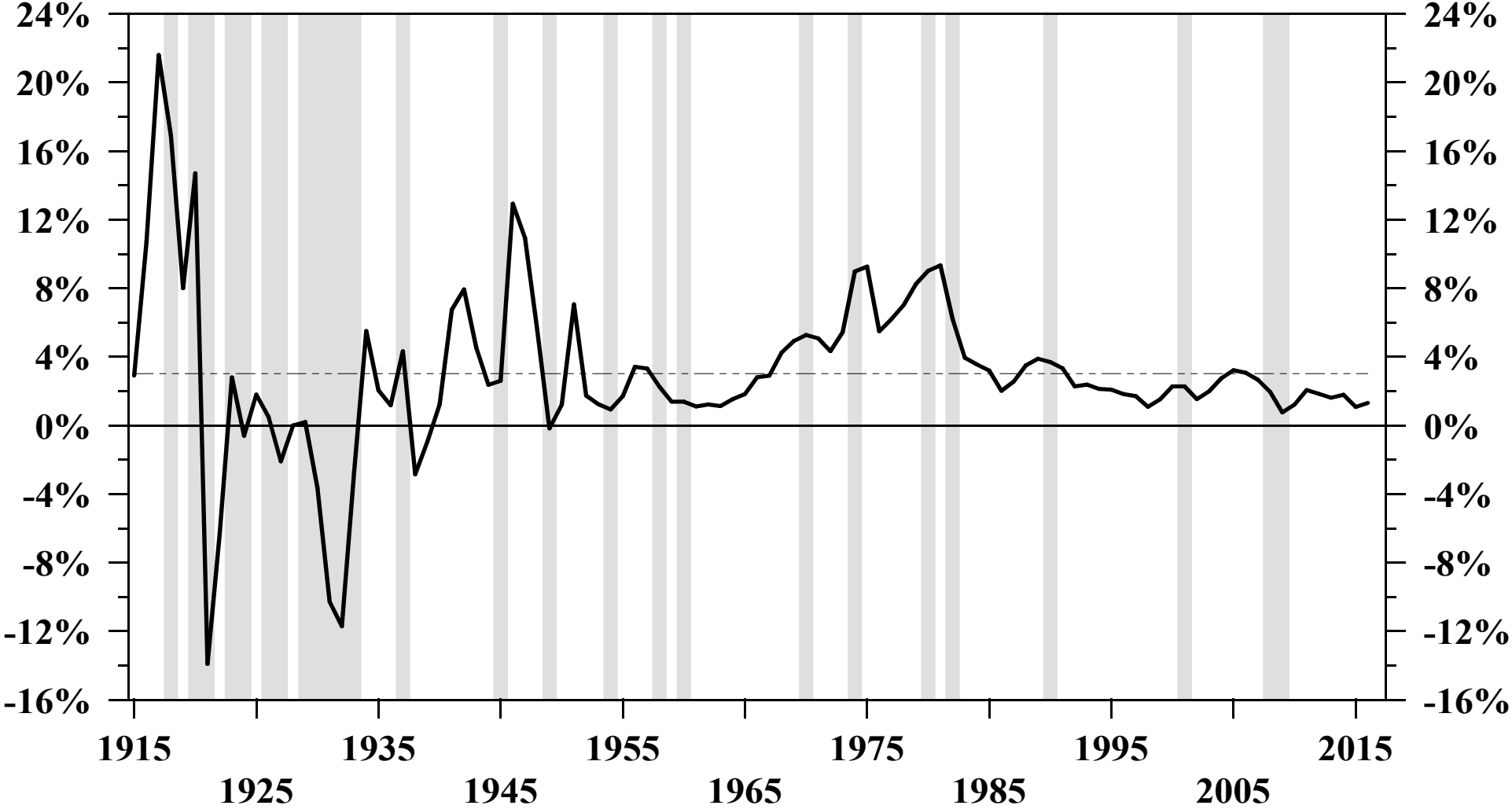
annual



Sources: Federal Reserve Board, Bureau of Economic Analysis, N.S. Balke & R.J. Gordon, C.D. Romer.
Through Q4 2016.

GDP Implicit Price Deflator

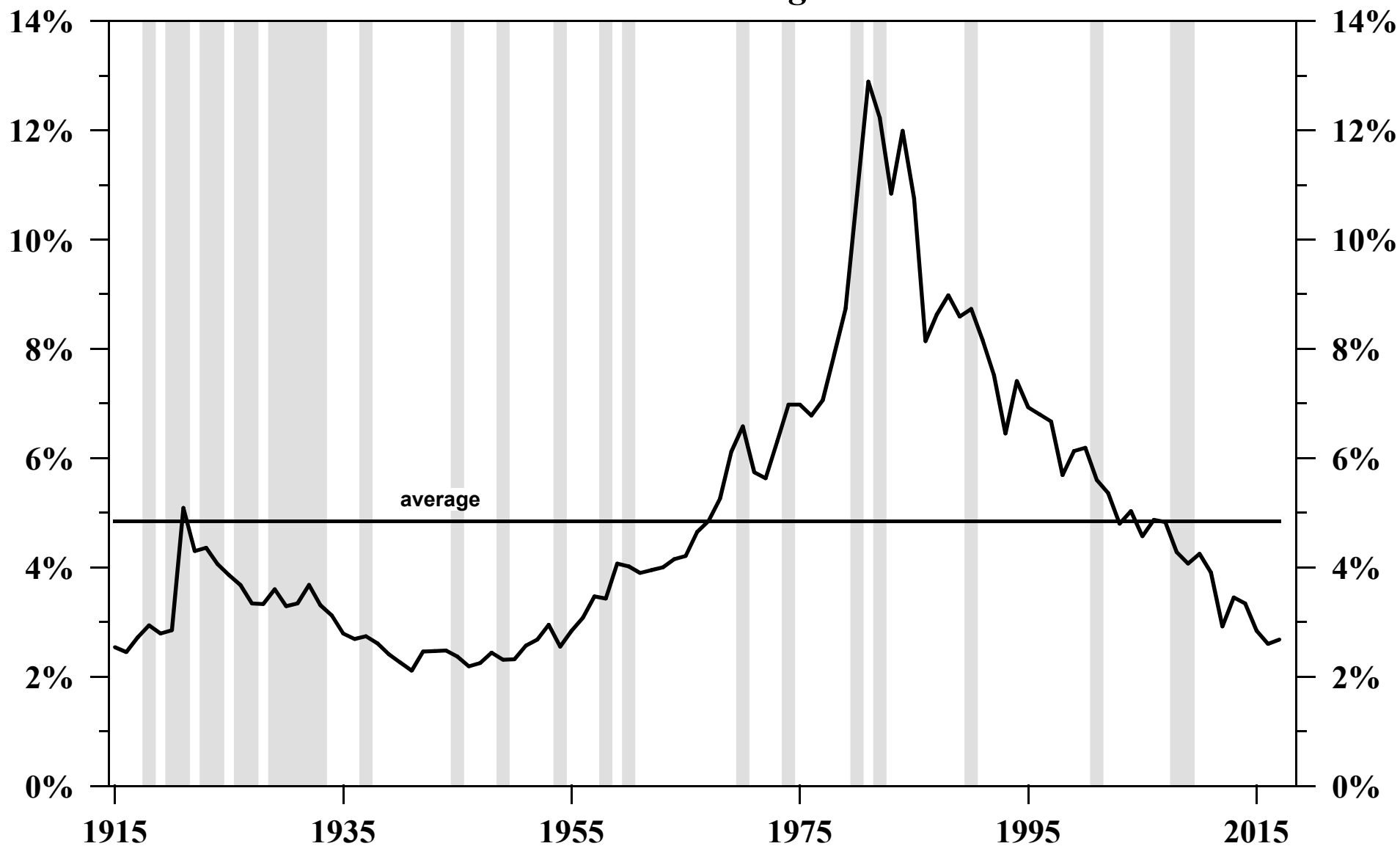
percent change in annual average



Sources: Federal Reserve Board, Bureau of Economic Analysis, N.S. Balke & R.J. Gordon, C.D. Romer.
Through 2016.

Long Term Treasury Rate 1915-2016

annual average

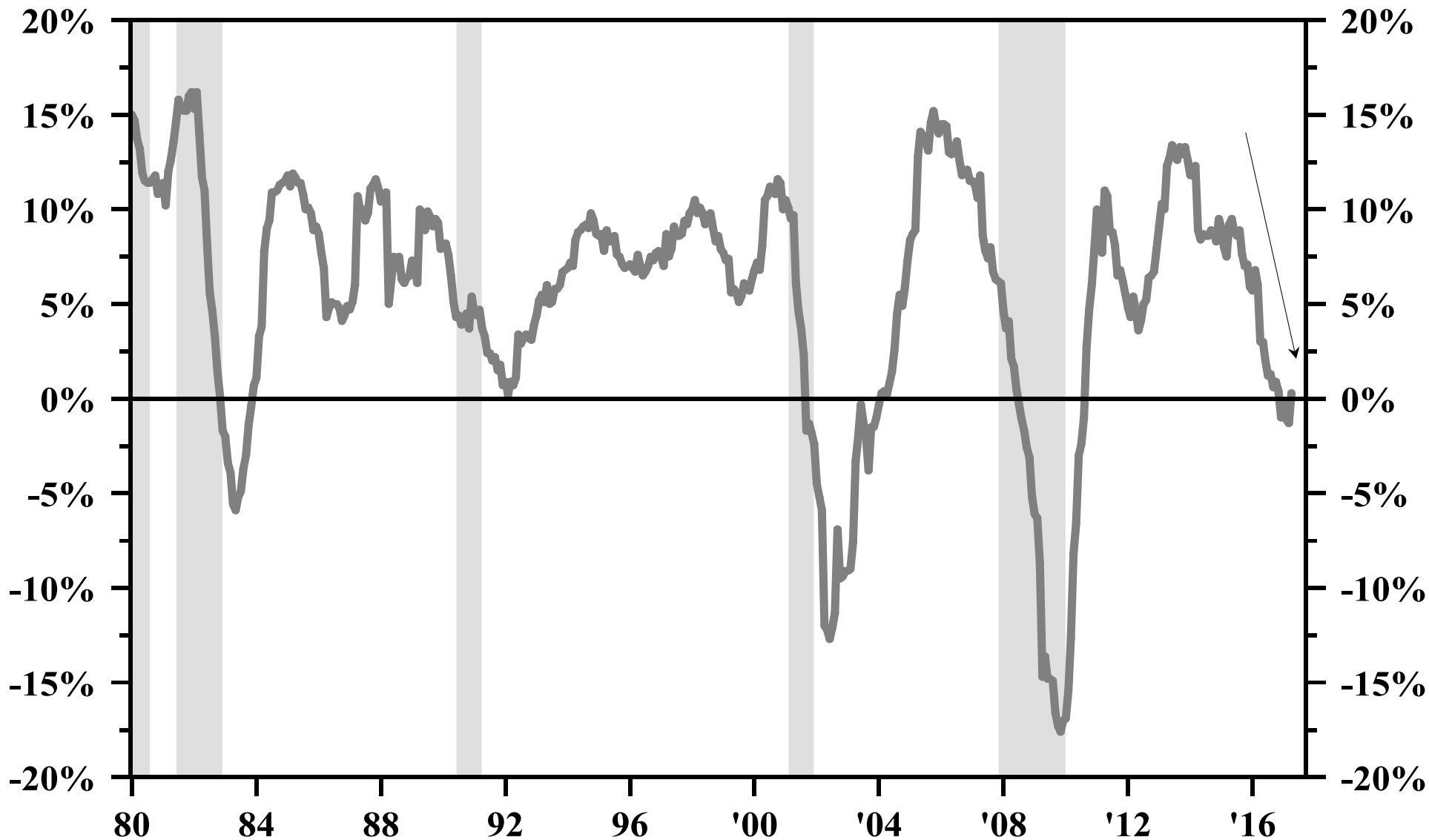


Sources: Federal Reserve Board, Homer & Sylla, Wall Street Journal. Through Q4 2016.

Appendix

Federal Receipts

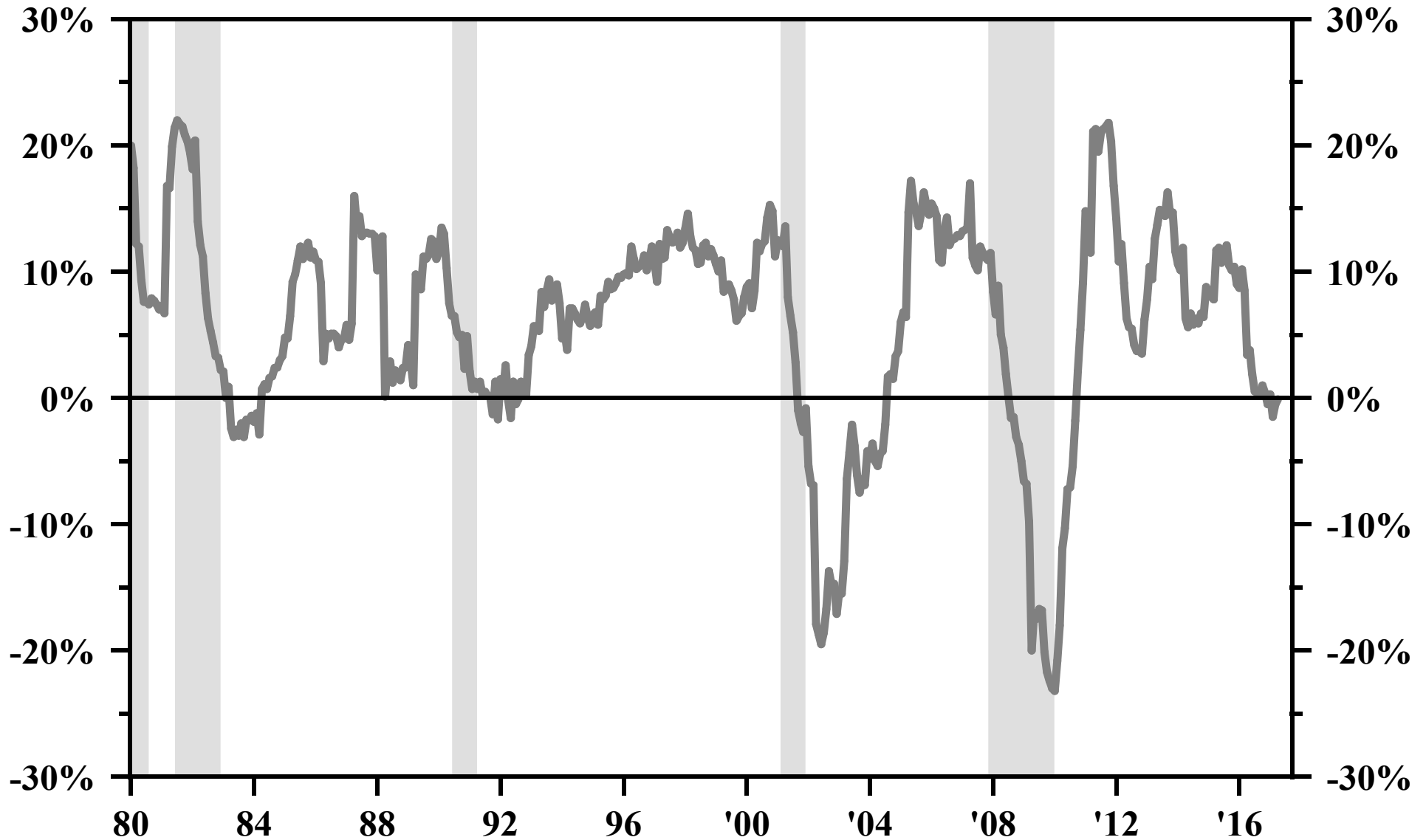
y-o-y % change, 12 month sum



Source: U.S. Treasury. Through April 2017.

Federal Receipts: Individual

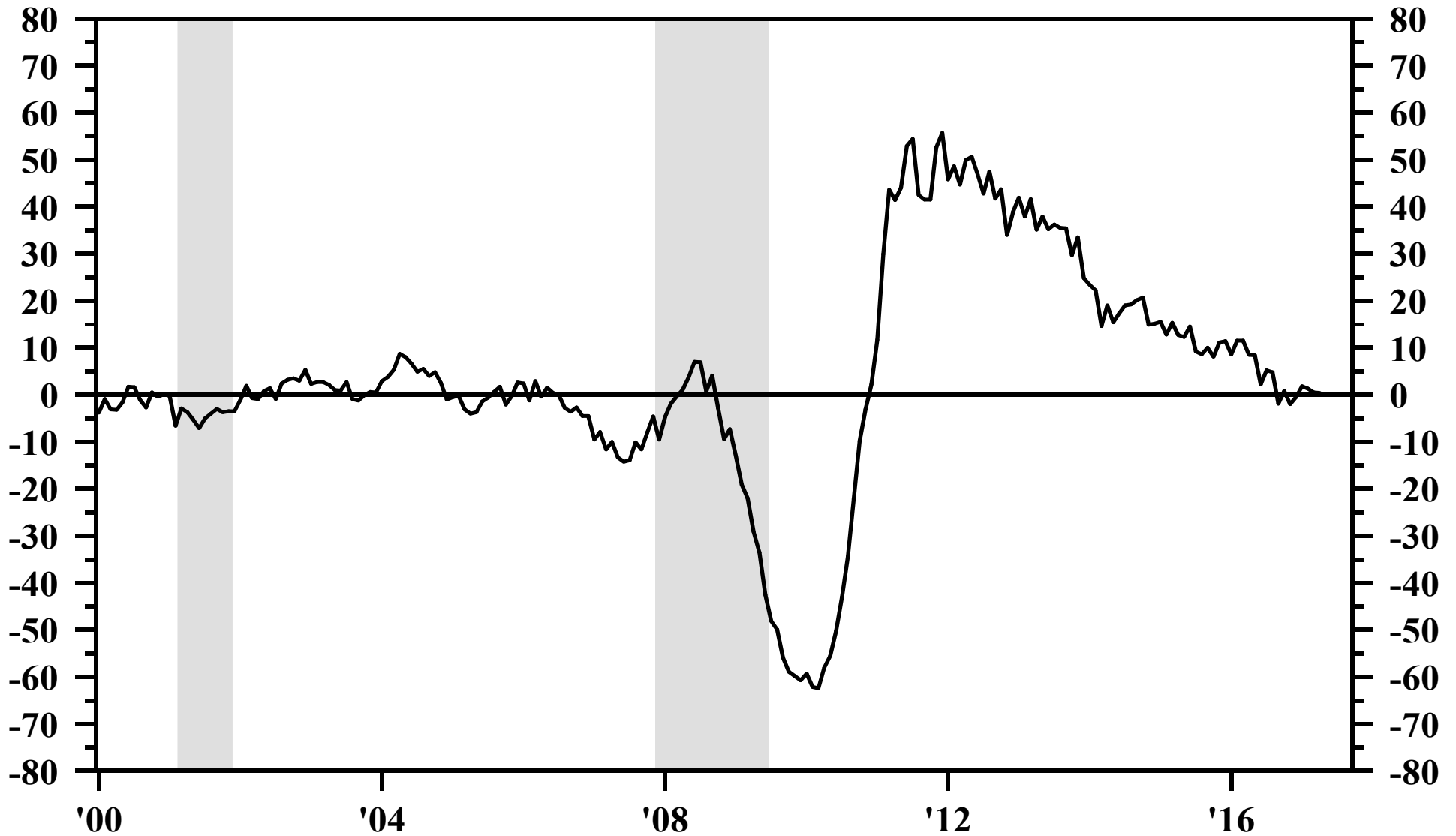
y-o-y % change, 12 month sum



Source: U.S. Treasury. Through April 2017.

Housing Starts: Multifamily

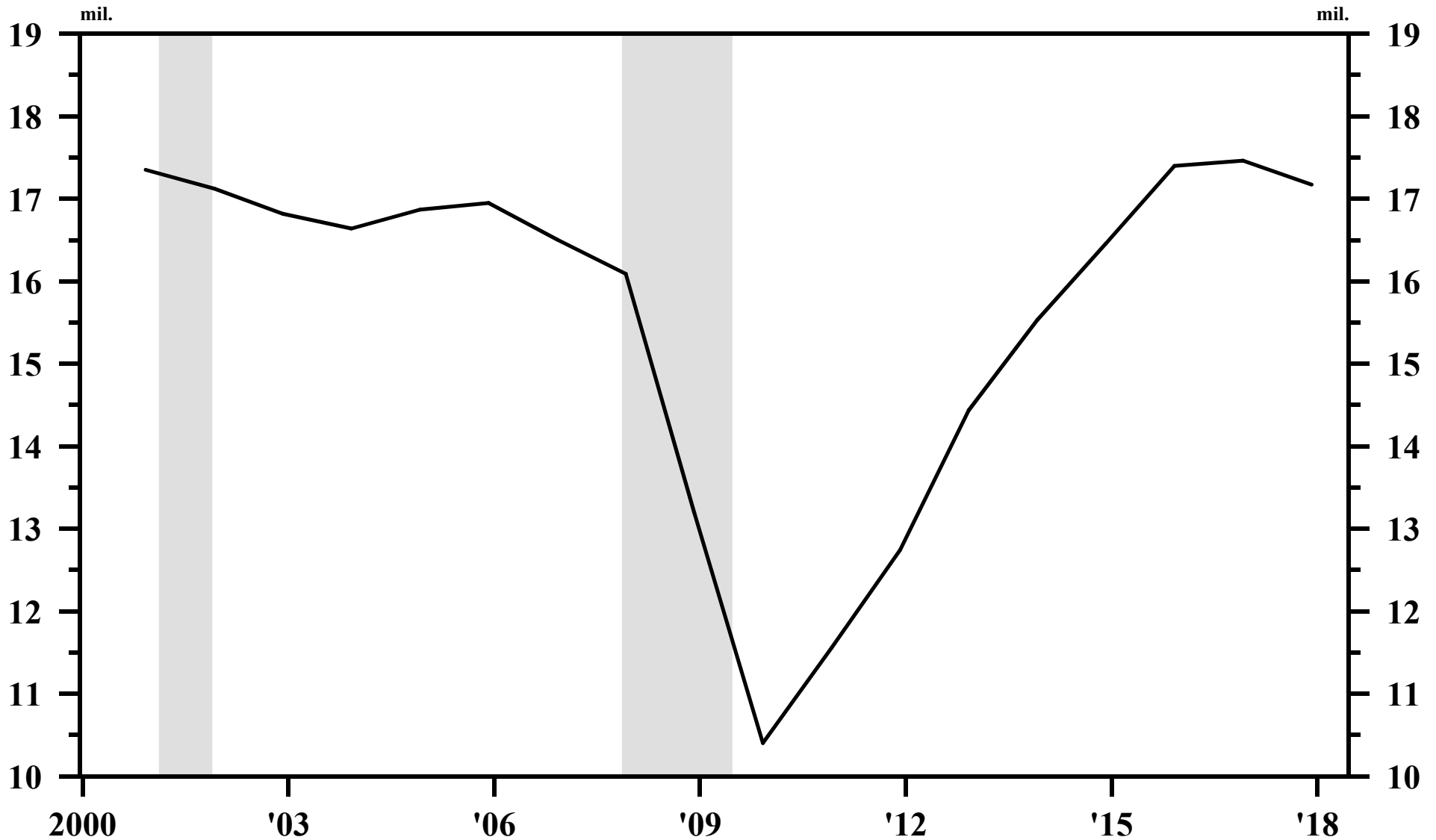
year over year % change of 12 month avg



Source: Census Bureau. Through April 2017.

Vehicle Sales

annual level



Source: Bureau of Economic Analysis. Through March 2017. (2017 plot is Q1 avg.)

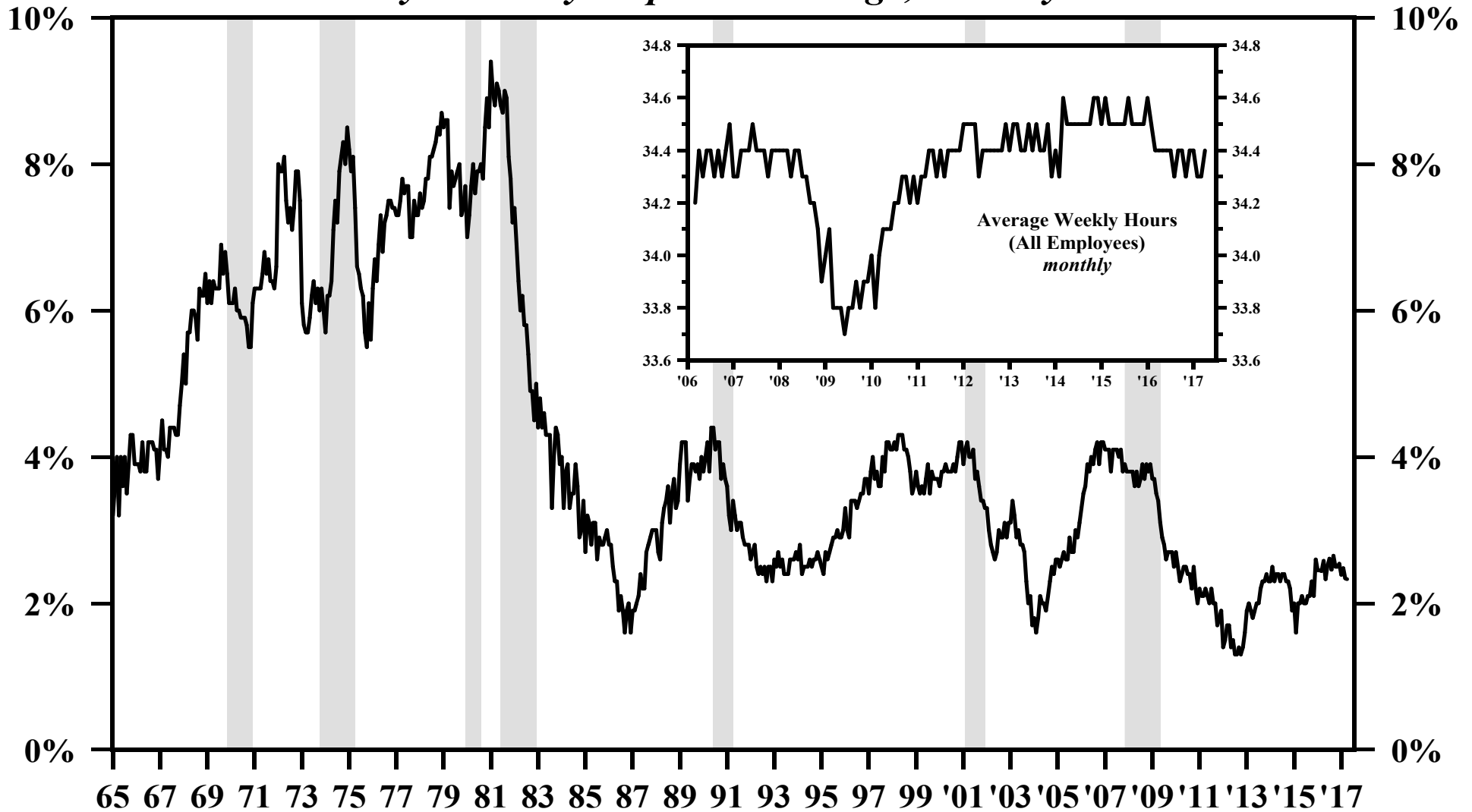
Nonfarm Payroll Growth

average monthly change, 1000's

		Nonfarm	Manufacturing
	(A)	(B)	(C)
1.	2014	250	17
2.	2015	226	6
3.	2016	187	-1
4.	Through April 2017	184	13

Source: Bureau of Labor Statistics. Through April 2017.

Average Hourly Earnings (Production and Nonsupervisory) *year over year percent change, monthly*



Source: Bureau of Labor Statistics. Production and nonsupervisory workers, total private industries.
Through April 2017.

Partial Bibliography of Debt Studies Post 2009

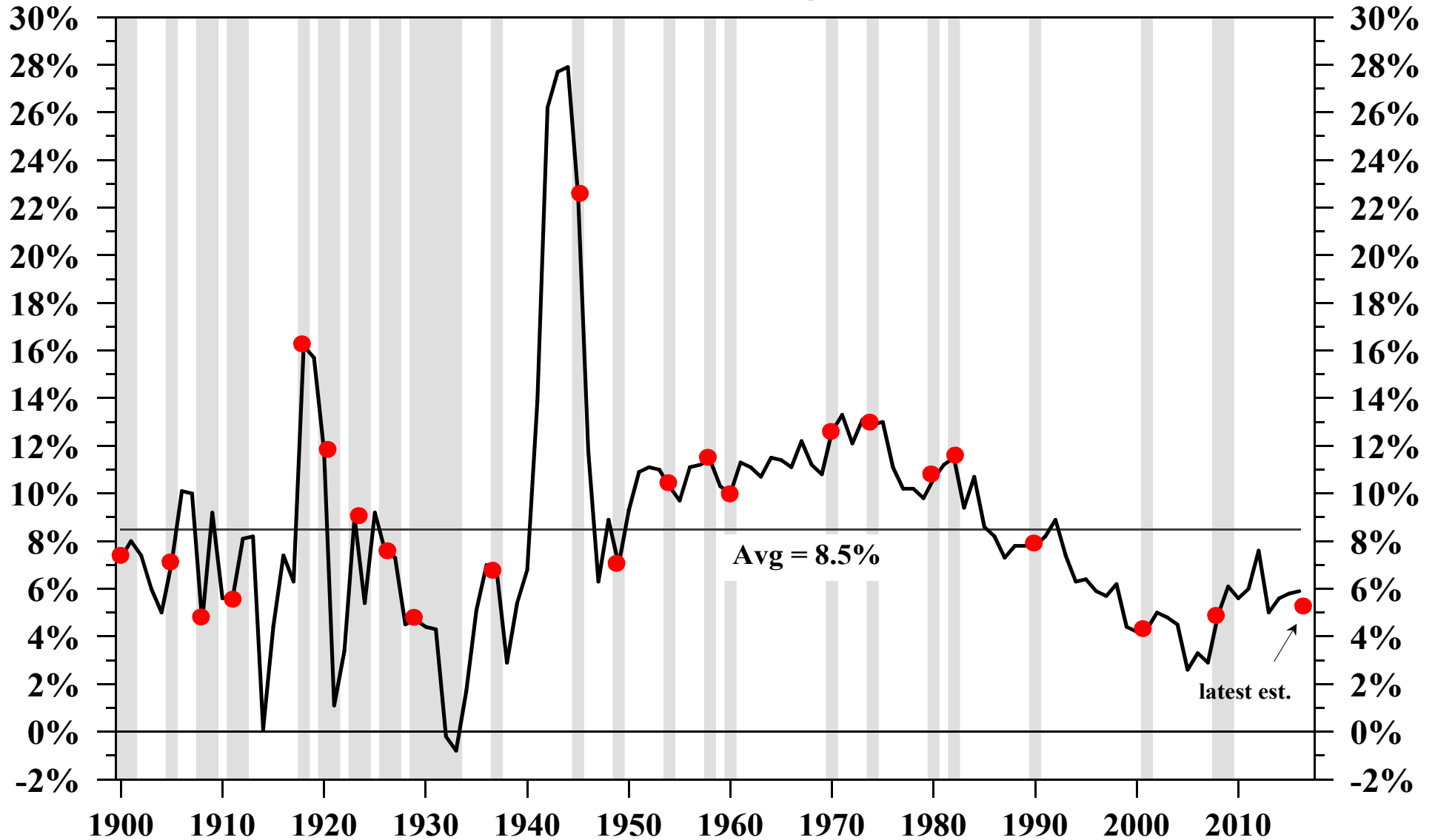
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Jean-Louis Arcand, Enrico Berkes, and Ugo Panizza, "Too Much Finance?", IMF Working Paper No. 12/161, June 2012.
3. **"Public Debt and Growth"**, Manmohan S. Kumar and Jaejoon Woo (2010). IMF Working Paper WP/10/174 (July).
"External Debt and Growth", Catherine Pattillo, Helene Poirson, and Luca Antonio Ricci, 2002. Review of Economics and Institutions, Fall 2011, vol. 2-No. 3-Article 2.
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9. **"Consumers and the Economy, Part II: Household Debt and the Weak U.S. Recovery”**, Federal Reserve Bank of San Francisco Economic Letter January 2011. Atif Mian Ph.D., Princeton University, University of California Berkeley, University of Chicago Booth School of Business and Amir Sufi, University of Chicago Booth School of Business
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3. Blanchard, Olivier, and Roberto Perotti. “An Empirical Characterization of the Dynamic Effects of Changes in Government Spending and Taxes on Output”. Quarterly Journal of Economics (2002).
4. Dupor, William, and Rodrigo Guerrero. “Does Government Spending Create Jobs, Even During Recessions”. The Regional Economist (2016).
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6. Owyang, Michael T., Valerie A. Ramey and Sarah Zubairy. “Are Government Spending Multipliers Greater during Periods of Slack? Evidence from Twentieth-Century Historical Data”. American Economic Review, Volume 103, No. 3 (May 2013). “Government Spending Multipliers in Good Times and in Bad: Evidence from U.S. Historical Data”. (June 9, 2016).
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Personal Saving Rate 1900-2016

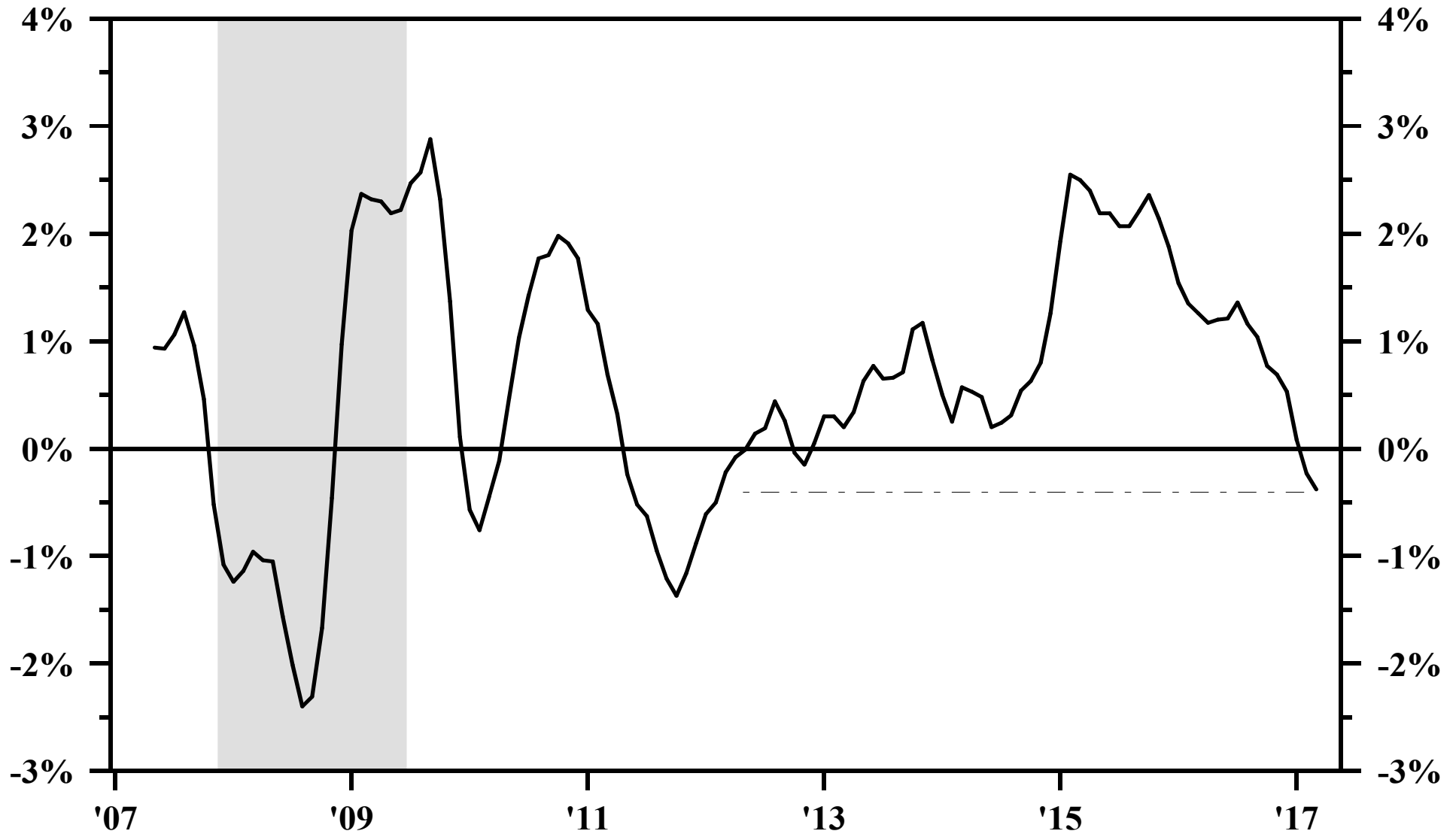
annual average



Sources: Bureau of Economic Analysis, Martha L. Olney University of California. Through 2016.

Real Average Weekly Earnings

year over year % change, 3 month mvg. average

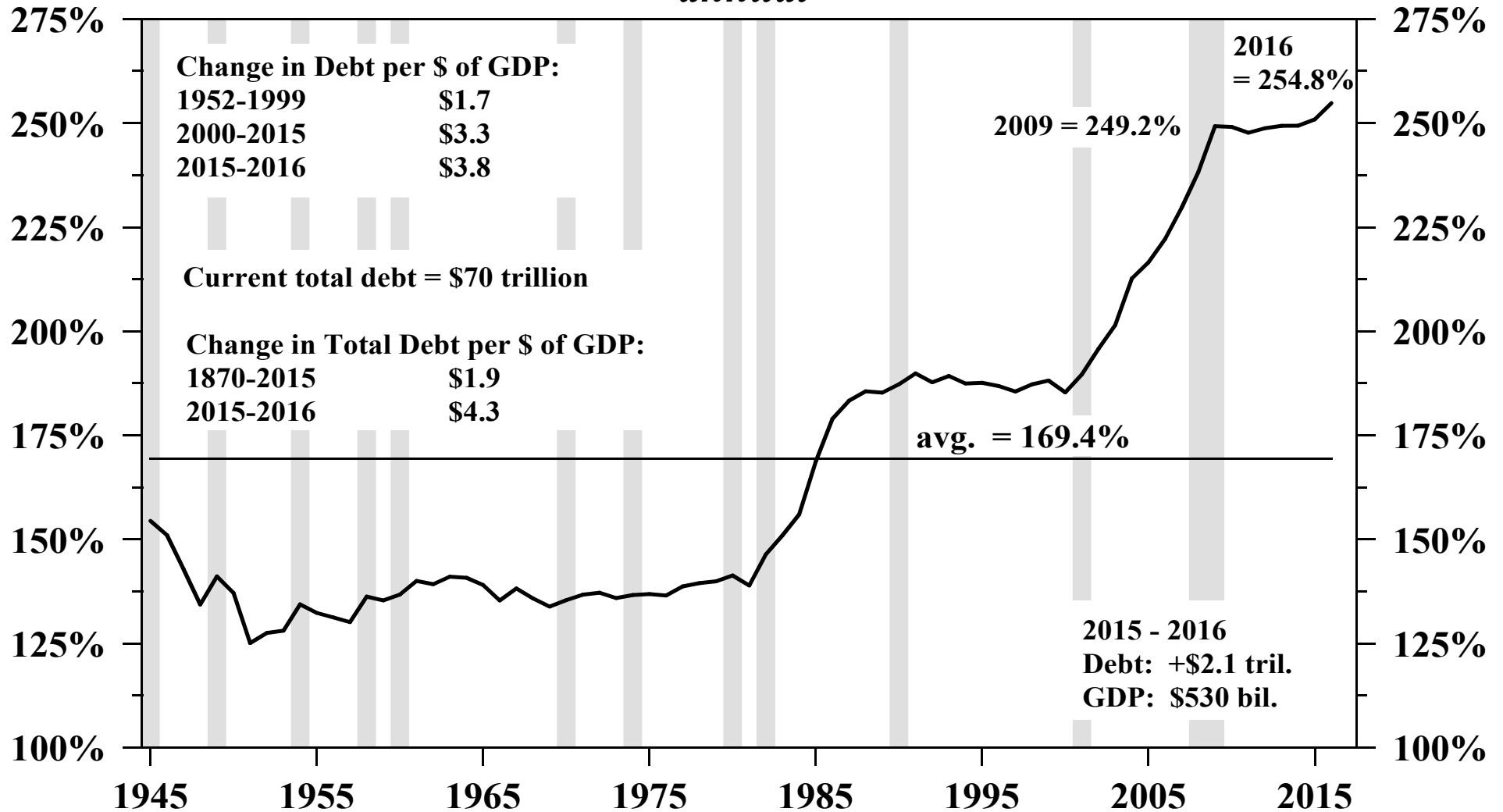


Source: Bureau of Labor Statistics. Through March 2017.

Total Nonfinancial Debt as a % of GDP

(Excluding Off Balance Sheet Liabilities)

annual



Sources: Federal Reserve. Through Q4 2016.

Signs of Exhausted Pent-Up Demand

- 1. The factory use rate is much lower than two years ago and well below long term historic norms.**
- 2. Rents are weakening after a massive six year boom in apartment buildings.**
- 3. Retail space rents are falling, amid actual abandonment of such properties due to lack of alternative end use possibilities.**
- 4. Prices for new cars are dropping as well as most discretionary goods. Delinquency rates on automobile loans are rising, particularly so on the riskiest types.**
- 5. Rising vacancy in office buildings is placing downward pressure on rents.**